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Forced Convective, Nonequilibrium,
Post-CHF Heat Transfer
Experiment Data and Correlation Comparison Report

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FORCED CONVECTIVE, NONEQUILIBRIUM, POST-CHF HEAT TRANSFER EXPERIMENT DATA AND CORRELATION COMPARISON REPORT

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ABSTRACT

Forced convective, postcritical-heat-flux heat transfer experiments with water flowing upward in a vertical tube have been conducted at the Idaho National Engineering Laboratory. Thermodynamic nonequilibrium in the form of superheated vapor temperatures was measured at a maximum of three different axial levels. Steady-state experiments were conducted at pressures of 0.2 to 0.7 MPa, mass fluxes of 12 to 24 kg/m²·s, heat fluxes of 7.7 to 27.5 kW/m², and test section inlet qualities of 38 to 64%. Quasi-steady-state (slow moving quench front) experiments were conducted at pressures of 0.4 to 7 MPa, mass fluxes of 12 to 70 kg/m²·s, heat fluxes of 8 to 225 kW/m², and test section inlet qualities of -7 to 47%. The multiple probe data and the data taken above 0.4 MPa are new data in parameter ranges not previously obtained. Comparison of the data with current vapor generation models and wall heat transfer models yielded unsatisfactory results. This is attributed to the effects of nonequilibrium, quench front quality, and distance from the quench front, which are factors not included in the current models compared.

SUMMARY

Forced convective, postcritical-heat-flux (post-CHF) heat transfer experiments have been conducted for water flowing upward within a vertical tube. The results and methods of analysis used in the data reduction are reported. Descriptions of the experiment hardware, experiment operations, and reduced tabulated data are included in the appendixes.

Steady-state (fixed quench front) experiments were conducted at pressures of 0.2 to 0.7 MPa, mass fluxes of 12 to 24 kg/m²-s, test section inlet qualities of 38 to 64%, and heat fluxes of 7.7 to 27.5 kW/m². Quasi-steady-state (slow moving quench front) experiments were conducted at pressures of 0.4 to 7 MPa, mass fluxes of 12 to 70 kg/m²-s, test section inlet qualities of -7 to 47%, and heat fluxes of 8 to 225 kW/m². Eighty-three steady-state and 683 quasi-steady-state heat transfer data points are reported. In order to determine thermodynamic nonequilibrium, superheated vapor temperatures were measured by using differentially aspirated microthermocouple probes either at three different axial positions or at a single position in the tube, depending on test configuration. These multiprobe nonequilibrium data and nonequilibrium data above 0.4 MPa extend the existing data base. The data were compared with currently used wall heat transfer correlations, and the results were unsatisfactory. A regression analysis of the data showed thermal nonequilibrium, quench front quality, and distance from the quench front to be significant factors in the correlation of these data. These effects are not included in current correlations and are thought to be the major reason for the poor comparisons.

The complete data base taken from this experiment provides valuable information with which to verify or develop post-CHF heat transfer and vapor generation rate correlations.

From the multiple probe tests, calculation of the rate of change of actual quality with respect to length yields the vapor generation rate. One hundred sixty-two vapor generation data points were obtained in this experiment. Comparison of the data with currently existing vapor generation models provided unsatisfactory results, with considerable scatter of the prediction relative to the data.

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NOMENCLATURE

ALHP Lower hot patch current (LHP-AMPS), (A)

A_{metal} Cross-sectional area of metal (m²)

AMP Test section current (A)

C Specific heat (J/kg·K)

COEF Orifice calibration coefficient (kg·m³/s²·kPa)

D Tube diameter (m)

di Inside diameter (m)

d_O Outside diameter (m)

dT/dt Time rate of change of temperature (K/s)

DZQF Distance from quench front (m)

G Mass flux (kg/m²·s)

GT Total mass flux (kg/m²·s)

 G_v Vapor mass flux = $(G_T)(XA)(kg/m^2 \cdot s)$

h Heat transfer coefficient (W/m²·K) or specific enthalpy (J/kg)

he Specific enthalpy of fluid obtained from energy balance (J/kg)

hfg Latent heat of vaporization (J/kg)

HL Test section heated length (m)

k Thermal conductivity (W/m·K)

Li Segment of test section (m)

L_{T.S.} Length of test section (m)

m Mass flow rate (kg/s)

Nu Nusselt number = $\frac{hD}{k}$

P Pressure (MPa)

P_c Critical pressure (MPa)

P_{T,S}. Power to test section (W)

Pr Prandtl number = $\frac{C\mu}{k}$

q Heat flux (W/m²)

Qacc Heat accumulation in tube wall (W)

Qacon Heat into segment via axial conduction (W)

Qconv Convective heat energy to fluid from wall (W)

qcony Convective heat flux to fluid from wall (W/m²)

Qgen Electrically generated power (W)

qgen Electrically generated power/unit volume (W/m³)

QLHP Total power input to lower hot patch (W)

Q_{loss} Heat losses (W)

qloss Heat losses (W/m²)

R Test section resistance (ohms)

RE Reynolds number = GD/μ

RREF Test section reference resistance (ohms)

R1000 Test section resistance at 1000 K (ohms)

S Slip ratio, ratio of vapor velocity to liquid velocity

T Temperature (K)

Tamb Ambient temperature (K)

Ti HP Lower hot patch temperature (TE-LPH-3) (K)

TOUT Segment temperature at the time the quench front leaves the tube segment (K)

TPRE Temperature of the segment prior to quenching (K)

U Quench front velocity (m/s)

VLHP Lower hot patch voltage (LHP-VOLTS) (V)

VOLT Test section voltage (V)

XA Actual quality

XCHF Equilibrium quality at the location of critical heat flux

XE Equilibrium quality

z Test section elevation (m)

Greek Symbols

 α_h Homogeneous void fraction = $\left[1 + \frac{(1 - XA)}{XA} \left(\frac{e_v}{e_L}\right)\right]^{-1}$

Γ Vapor generation rate (kg/m³·s)

ΔP Orifice differential pressure (kΓa)

ΔT Temperature difference (K)

Δt Time increment (s)

ΔZ Test section segment length (m)

ε Wall emissivity

μ Viscosity (kg/m²·s)

Q Density (kg/m³)

σ Surface tension (N/m) or Stefan-Boltzmann constant (5.668 x 10⁻⁵ erg/s·cm² K⁴)

σ_i Standard deviation of subscripted quantity, i

 ω_i Uncertainty of subscripted quantity, i

Subscripts

- f Saturated liquid
- g Saturated vapor
- i Subscript for quantity
- j Subscript for quantity
- L Liquid
- s Saturation
- v Superheated vapor
- w Wall

FORCED CONVECTIVE, NONEQUILIBRIUM, POST-CHF HEAT TRANSFER EXPERIMENT DATA AND CORRELATION COMPARISON REPORT

1. INTRODUCTION

Best-estimate predictions of the thermal behavior of the primary coolant system during various nuclear reactor transients, and the associated fuel rod temperature responses, require an accurate prediction of postcritical-heat-flux (post-CHF) heat transfer, thermal nonequilibrium, and quenching phenomena. These post-CHF heat transfer mechanisms control the maximum rod cladding temperature, vapor superheat, and quenching during a hypothetical loss-of-coolant accident (LOCA) core thermal excursion. These factors are important because: (a) maximum cladding temperatures, coupled with the pressure, determine whether or not cladding failure occurs and, if it occurs, the extent of the damage; (b) vapor superheating influences the maximum cladding temperature and, if cladding failure occurs, the transport and deposition of fission products; and (c) quenching determines when elevated cladding temperatures end and significant removal of the fuel rod energy can begin.

To help fill the need for additional nonequilibrium, post-CHF heat transfer data necessary to develop and verify computer code heat and mass transfer models, a forced convective, post-CHF heat transfer experiment for water flowing upward within a vertical tube was performed at the Idaho National Engineering Laboratory (INEL) in conjunction with Lehigh University. This experiment served to fill a particular need for thermodynamic nonequilibrium film boiling data under low-flow and high-pressure (up to 7 MPa) conditions over a wide quality range, with emphasis on low quality.

The appendixes to this report contain detailed descriptions of the experiment hardware and test setup, test conditions, experiment measurements and associated uncertainties, and the operating procedures used to perform the experiments. This material is presented in an effort to make the results of this work more useful to both analysts and future experimenters. A brief summary of the experimental information is provided in the main body of this report for those not requiring great depth. Emphasis in the main body is placed on the data analysis procedures to obtain the reduced data, comparison of the data to correlations or models, and limited correlation of the data in order to determine key parameters.

2. BACKGROUND

A phenomenological understanding of post-CHF heat transfer mechanisms is important in understanding at least two types of water reactor transients. The first involves quenches that may occur during the various phases of a LOCA. As observed during the INEL Loss-of-Fluid Test (LOFT) Experiments L2-2 and L2-3^{1,2} (cold leg offset shear break transients), early core quenching may occur at high pressure (6.9 MPa) during the blowdown phase of a LOCA. The mechanisms are also important during the low-pressure (0.1 to 0.4 MPa) reflood-phase quench of a LOCA, as indicated from the FLECHT³ results.

Consideration of the LOFT blowdown fuel rod quenches that were produced by a two-phase, low-quality fluid front propagating through the core indicates the importance of the low-quality post-CHF data. Current post-CHF heat transfer mechanisms are not sufficiently understood to allow a complete phenomenological description of the processes. Figure 1 illustrates the current status of the efforts to describe the effect of low-quality flow on film boiling. Many film boiling heat transfer correlations 5,6 indicate a decrease in heat flux with a

decrease in quality, as represented by the solid line in Figure 1. As represented by the dashed line in Figure 1, a low-quality^a effect in the film boiling regime—synthesized by Nelson⁸ from the work of Iloeje, 9 Dougall and Rohsenow, 10 and Cheng, 11—indicates an increase in heat flux at low qualities. The approximate quality ranges of the data of Iloeje, Dougall and Rohsenow, and Cheng are also shown in Figure 1, indicating a complete coverage of the quality parameter.

Current correlations do not have this synthesized characteristic, because the data used for their development in the low-flow regime are primarily high-quality data. Figure 2 shows the open literature tube equilibrium film boiling data base upon which several current correlations are based. The figure also indicates the data region encountered in a calculation of the LOFT L2-3 large break LOCA. It has been hypothesized that this enhanced heat

a. The term quality as used here refers to the equilibrium quality. Reference 7 provides a review of the different definitions of quality that can be used.

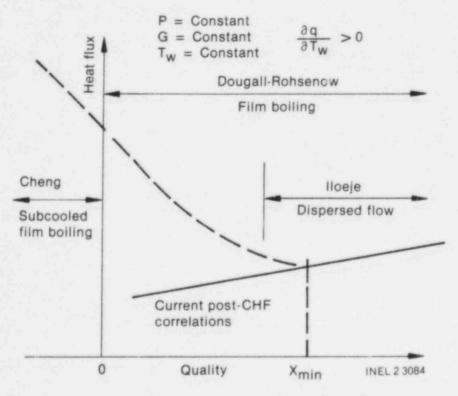


Figure 1. Synthesized low-quality effect on film boiling.

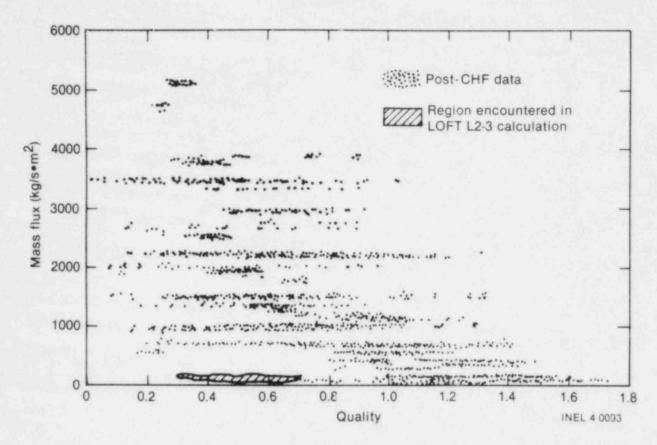


Figure 2. Worldwide post-CHF tube data base.

transfer at low quality shown in Figure 1 produces many forced convective quenches. The quenches are produced when a low-quality mixture advances past a given fuel rod location which is in film boiling and produces an increase in the convective heat flux, as would occur in Figure 1 if the dotted line were followed. If this increase in heat removal is sufficient (based on an energy balance at the cladding surface), the surface will be cooled. If the cooldown continues long enough, the surface will quench.

Recent low-pressure data taken by Barnard¹² and Fung¹³ support the synthesized low-quality effect in the low-flow film boiling region. Just as in the low-pressure convective quenches, such as occur during reflood, the same basic low-quality effect may initiate convective quenches at higher pressure. LOFT Experiment L2-3² provided an example of the influence of this type of convective-initiated quenching.^{4,8} Limited high-pressure data supporting this low-quality effect were obtained by Polomik.¹⁴ More recent high-pressure data (up to 9 MPa), obtained by Groeneveld¹⁵ at mass fluxes above 111 kg/m²·s, further support the low-quality effect. The need for additional post-CHF data to

investigate the low-quality effect at flow rates of less than 110 kg/m²·s and at high pressures was the motivation for this investigation.

The post-CHF data described in this report are also applicable to a second type of transient which involves what might be termed "uncovered core," post-CHF heat transfer and may arise from a number of scenarios, the Three Mile Island Unit 2 accident being one such example. Recent studies in the Severe Accident Sequence Analysis Program 16-18 at the INEL indicate that low-flow-rate (2 to 150 kg/s·m²), low-to-high-quality, post-CHF nonequilibrium conditions exist at high pressure during both pressurized water reactor station blackout accident sequences and boiling water reactor anticipated-transient-without-scram accident sequences. Accurate predictions of the early phases of cladding heatup (<1200 K) prior to significant cladding oxidation are important in determining if significant cladding oxidation and core damage will occur, as well as the timing of such events. If cladding oxidation occurs, the degree of oxidation determines the total amount of hydrogen generated. Whether or not a cladding rupture takes place determines whether the fission product source term is an

important factor during the later stages of the accident. When the fission product release does occur, fission product transport and deposition are also dependent on the degree of vapor superheat. The total amount of hydrogen generated, the fission product source term, and fission product transport are those factors currently felt to be of significant importance to nuclear reactor safety. ¹⁹

Thermodynamic nonequilibrium is also an important aspect of current state-of-the-art computer codes. Advanced computer codes such as RELAP5²⁰ and TRAC^{21,22} attempt to describe the post-CHF phenomena through the use of numerous heat and mass transfer models. These models incorporate methods to represent both wall and interfacial considerations and allow for unequal velocities between the phases as well as for thermodynamic nonequilibrium.

Thermodynamic nonequilibrium between the phases was first suggested by Parker and Grosh²³ and was measured in tubes by Mueller;²⁴ Polomik;²⁵ and, more recently, by Nijhawan;^{26,27} Annunziato, Cumo, and Palazzi;²⁸ and Evans, Webb, and Chen.²⁹ The nonequilibrium data of Mueller, Polomik, and Annunziato-Cumo-Palazzi are in the high-quality region, while those of Nijhawan and Evans-Webb-Chen cover a wide range of qualities at low pressures. These data, with the exception of that of Annunziato-Cumo-Palazzi, represent a measurement at a single point (elevation). All data are still limited in both number and parametric ranges. Only the data of Nijhawan and Evans-Webb-Chen are well documented. (The experiment discussed in this report was developed to extend the work of Nijhawan and run in parallel with Evans-Webb-Chen.)

Due to measurement difficulties, the measurement of thermodynamic nonequilibrium in rod bundles has received little attention. Measurements of vapor superheat in a rod bundle have been reported by Rosal³⁰ under reflood conditions. However, the definition of the local conditions that occur in a rod bundle are not as well determined as those in the single-tube experiments.

Thus, the need for additional nonequilibrium, post-CHF data for the development and verification of post-CHF heat and mass transfer models important to fuel rod quenching, uncovered core heatup, and fission product transport modeling is apparent.

Another important concern is the effect of fission product decay heat and vapor superheating on the transport of the fission products. It is believed that much of the transport of the important compounds (cesium iodide and cesium hydroxide) is caused by condensation of these species on silverindium-cadmium aerosols from the control rods. A key unresolved question is the distribution of the condensates between aerosol surfaces and immobile wall surfaces. The distribution is a function of the aerosol and wall temperatures. These temperatures are both dependent on the degree of vapor superheating occurring in the core. Since as much as 30% of the decay heat may be associated with material released from fuel assemblies, 31 detailed heat and mass transfer correlations will be required to understand the transport of fission products from reactor cores during hypothetical severe fuel damage accidents. Thus, one of the first steps required in this modeling of fission product transport is the determination of vapor superheat.

3. EXPERIMENT DESCRIPTION

This section presents a brief description of the experiment, providing only that information necessary to make use of the results of the experiments. Detailed descriptions of the test loop, test section, test conditions, operating procedure, data acquisition system, measurements, and measurement uncertainties are included as Appendixes A through F for those who require the information.

3.1 Experiment Objectives

The objectives of the experiment were to: (a) provide additional data to support the synthesized low-flow, low-quality effect in film boiling at pressures up to 7 MPa, (b) to provide nonequilibrium data, at pressures up to 7 MPa, over as wide a range of flow rates and fluid qualities as possible, and (c) to measure the rate of change of vapor superheat (and therefore, actual quality) with respect to length by measuring the vapor superheat at multiple axial locations in the test section.

3.2 Test Section Description

The post-CHF experiments were conducted in the Blowdown Loop of the Thermal-Hydraulics Experiment Facility at the INEL. The main loop configuration is schematically shown as part of Figure 3 and consists of a pressure vessel, a coolant pump, a warmup heater vessel, and associated valves and piping. The purpose of the main loop is to provide a high-temperature, high-pressure water supply to the test section (also shown as part of Figure 3) in a once-through manner. A feed and bleed system maintained the main loop in a subcooled, liquid full, constant pressure condition. The outlet of the test section was connected to a surge tank (Figure 3) with a regulated nitrogen supply to provide a constant back pressure during a test run. Details of the test loop configuration are included in Appendix B.

The test section, schematically shown in Figure 4, consisted of a vertical, Inconel-625, seamless tube with a 19.14-mm OD and a 15.7-mm ID. The initial heated length of the test section was 213.4 cm. The hot patch technique, developed by Groeneveld and Gardiner, ³² was used in this experiment to create dry patches at the test section inlet and exit in order to prevent a quench front from entering the test section during the steady-state experiments. Drawings of the test section and hot patches are provided in Appendix G. As shown in Figure 4, the test section wall temperature was measured at 38 different axial elevations. Vapor superheat was also measured at

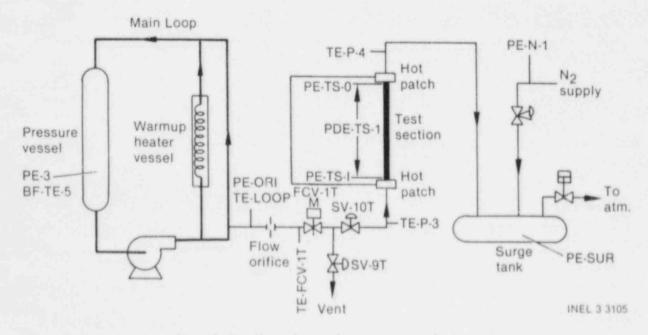


Figure 3. Experiment loop and instrumentation diagram.

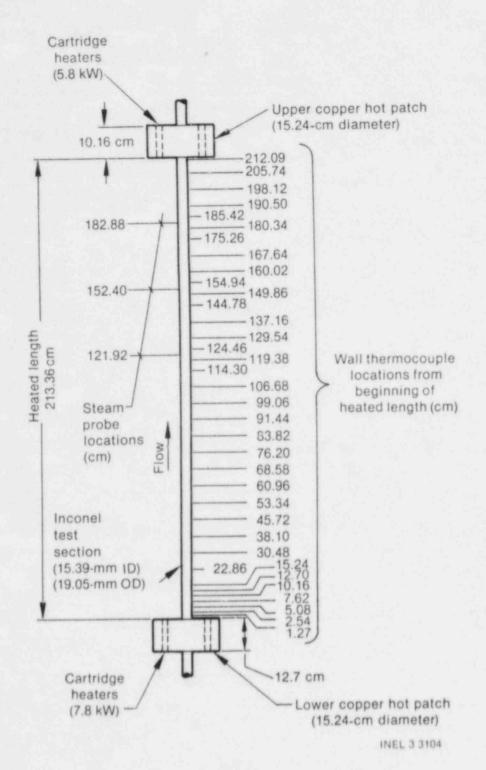


Figure 4. Test section geometry and instrument locations.

three elevations, using a double-aspirated steam probe developed by Nijhawan. 26,27 Details of the test section configuration and measurements are included in Appendixes A and E.

3.3 Test Conditions

Originally, the post-CHF experiments were to be conducted only in the steady-state mode, with the quench front stable at the inlet to the lower hot patch. Once testing began, however, it was determined that a quench front propagated into the test section for mass fluxes over 25 kg/m2 s and pressures greater than 0.7 MPa. This inability to perform a complete series of steady-state experiments over a wide parametric range of test conditions was shown, during a posttest dissection and metallurgical analysis, to be due to a faulty braze of the lower hot patch. The faulty braze resulted in the performance of two types of experiments. A steady-state series was performed over a limited data range, and a slowly moving quench front series (quasi-steady-state) was performed over a much wider data range. Section 4.1 justifies the use of this latter type of experiment to obtain steady-state data.

The steady-state series, performed over a limited data range, covered a pressure range of 0.2 to 0.7 MPa, a mass flux range of 12 to 24 kg/m²·s, a heat flux of 7.7 to 27.5 kW/m², and a test section inlet equilibrium quality range of 38 to 64%. The slowly moving quench front experiments covered a pressure range of 0.4 to 7 MPa, a mass flux range of 12 to 70 kg/m²·s, a heat flux range of 8 to 225 kW/m², and a test section inlet quality range of -7 to 47%.

3.4 Operating Procedure

To initiate an experiment, the main loop was first heated to a temperature that provided fluid at the desired test section inlet quality when flashed across the inlet flow control valve (FCV-1T in Figure 3) at a given test section pressure. The surge tank and test section were initially pressurized with nitrogen to the desired test pressure, with no flow in the test section. The test section and hot patches were slowly heated to the specified temperature for the experiment.

During performance of the steady-state experiments, when the main loop, test section, and hot patches were at the specified temperatures for a given test run, flow from the main loop was circulated through one of the flow orifice lines, the inlet flow control valve, and the test section in a once-through manner. Flow to the test section was then adjusted through the inlet flow control valve until the desired flow rate was obtained. In order to maintain the set temperatures, power to the hot patches and the test section was controlled automatically by an EPTAK microprocessor. To provide measurement of the vapor temperature, the vapor probe aspirating valves were opened and adjusted.

When all parameters were stable, their measurements (data) were recorded for a period of several minutes, with either the test section temperature or voltage (power) being controlled. The constant-voltage tests resulted in less fluctuation of the test section power. However, when the parameters for temperature- and voltage-controlled portions of the experiment were time averaged over a period of 60 s to obtain a data point, the values were basically the same.

The process of lowering the test section temperature and taking data was repeated until the test section inlet quenched. Each temperature counted as a test run. A backflow of nitrogen from the surge tank was initiated after quench, and low power was applied to dry out the test section. Conditions were then reset for another series of steady-state experiments.

The operating procedure for the quasi-steady-state experiments was similar to that for the steady-state experiments, with the following exceptions. The lower hot patch was heated to the saturation temperature at the corresponding test section pressure for a given test run. This process eliminated (a) heat transfer between the hot patch and the incoming fluid, to simplify determination of the test section inlet fluid quality, and (b) heat losses from the hot patch to the environment.

Data recording began just prior to initiating flow to the test section. During quasi-steady-state Runs 50 through 127, the inlet piping configuration was the same as for the steady-state runs. Due to flow control limitations with the inlet micrometering flow control valve, a period of up to about 120 s was required to obtain a steady flow rate during these experiments. The result was that the quench front had generally propagated from about 15 to 45 cm into the test section before the flow rate was stabilized.

Following Run 127, the inlet piping configuration was changed, as described in Appendix C, to allow a stable flow rate to be preset before diverting flow into the test section. This method of operation was found to be very successful, with useful data being obtained from the beginning of the test section quench.

The amount of nonequilibrium at each vapor probe decreased as the quench front moved up the test section during the quasi-steady-state test runs. The vapor probes encountered more frequent rewets and recoveries as the quench front approached, and generally quenched permanently when the quench front was within about 15 to 30 cm of the probe. When all of the vapor probes had encountered permanent quenches, the test run was terminated.

4. EXPERIMENT SELECTION AND DATA REDUCTION ANALYSIS

This section describes the steps taken to choose which experiments were to be analyzed, as well as the steps taken to reduce the raw data recorded at the facility to the final selected data points presented in this report. A heat transfer "data point" is defined by the measurement of the vapor temperature at a given elevation in the test section, along with the following quantities: test section pressure and associated saturation temperature; mass flux; test section inlet equilibrium quality and enthalpy; and wall temperature, equilibrium quality, and convective heat flux at each wall thermocouple location. For example, a data point was obtained corresponding to each operating vapor probe in the test section during a steady-state run.

4.1 Experiment Selection

A selection of which experiments were to be analyzed was required for two reason. First, a limited amount of the data taken was of marginal quality, generally due to nonexistent or poor vapor temperature measurements, that it was not analyzed. Second, sufficient funding was not available to reduce all of the data. These factors led to the selection procedure discussed in this section.

Selection of the steady-state experiments to be analyzed was a straightforward procedure in that only those experiments which had a stable operating condition were chosen. This eliminated those runs for which the lower hot patch was unable to hold the quench front out of the test section and resulted in 37 steady-state runs for analysis.

The selection of the quasi-steady-state experiments for analysis was more subjective, with three key considerations entering into the procedure. The first was that the quench transient be slow enough that steady-state heat transfer conditions existed; the second was the quality of the vapor probe measurement; the third was the relationship of the individual experiment to the parametric distribution of all experimental runs. The third consideration resulted in the analysis of some runs which were not as good as others (in terms of vapor probe readings, for example) in order that (a) a data base covering the widest parametric range possible be obtained and (b) a data base dominated by "easy to get" data be avoided.

Justification of the application of steady-state heat transfer to transients has received rather extensive study. The work of Sparrow and Siegel³³ and Siegel³⁴ is typical of this effort. Their studies show the regions over which this approximation is valid, but basically the requirement is that the thermal changes due to heat transfer at the wall be slow compared to the resident time of the fluid. This means that the fluid must move through a tube, such as that used for these experiments, with minimal change in the thermal state of the tube. All test runs met this condition.

In looking at the response of the vapor probes, it was necessary to make a qualitative judgment of each experiment. For some test runs, the vapor probes were quenched frequently and recoveries were not sustained, as shown in Figure 5 for Run 178. A confident vapor temperature could not be obtained from this type of response; therefore, this run was not analyzed. The quality of the vapor probe measurements for other test runs ranged from periodic quenches and sustained recoveries to essentially no quenches at all. Therefore, some engineering judgment was involved in selecting times or inferred vapor temperatures for data points. Figure 6 shows a vapor temperature measurement at the 152.4-cm elevation for Run 119, during which sustained recoveries were obtained between quenches of the probe. In this case, confident data points could be obtained during the sustained recoveries, or inferred data points could be confidently interpolated between the sustained recoveries. Figure 7 shows the measured vapor temperature at the 152.4-cm elevation for Run 78, during which there were essentially no quenches of the probe. A confident data point could be obtained at any time during this type of experiment. Each test run was evaluated on this basis and given a rating between one and five, called the priority number. A rating of one indicated an unacceptable test. A rating of two generally meant the test was acceptable from the standpoint of thermalhydraulics, but no valid vapor temperature measurements were obtained. Run 178 (Figure 5) provides an example of such a situation. Those runs with good, clear vapor temperature measurements and good thermal-hydraulics, such as shown in Figure 5 were given a rating of five. Runs with good thermal-hydraulics and vapor temperature measurements with quenches and sustained recoveries-

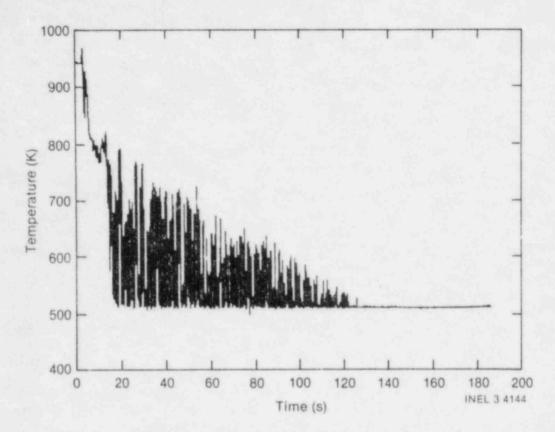


Figure 5. Vapor probe response with insufficient recovery for analysis.

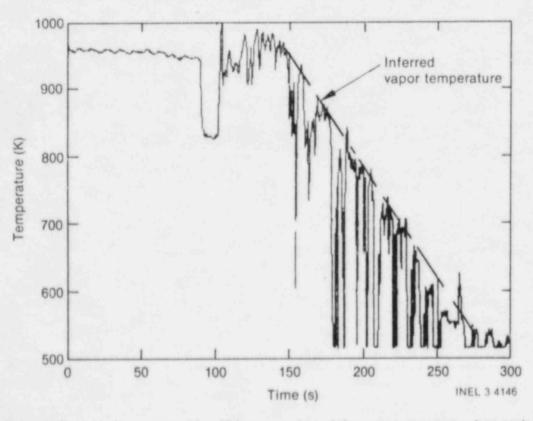


Figure 6. Vapor probe response with sufficient recoveries to infer vapor temperatures where needed.

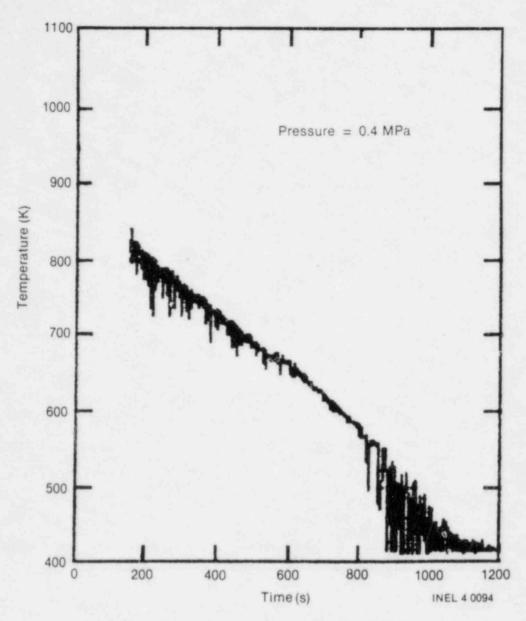


Figure 7. Vapor probe measurement for Test Run 78.

Figure 6 being an example—were given a rating of three or four, depending on the number and duration of the recoveries.

Having gone through these two considerations for each test run, the runs were then plotted in the inlet quality/mass flux plane for each pressure grouping used in these experiments. The run number, ranking, and a preliminary average heat flux (based on test section power) were noted for each run, as shown in Figure 8 for 3.5 MPa. From these plots, quasi-steady-state runs that were to be reduced were chosen on the following basis: (a) ensuring the widest possible parametric range,

(b) picking the better (higher ranking) of equivalent runs in a given region, and (c) ensuring that the data base obtained would not be dominated by data in a given subregion due to a surplus of good runs in that region.

4.2 Data Reduction Analysis

The data reduction effort was divided into (a) time averaging, (b) screening for spurious data points, and (c) calculating local hydraulic and heat flux conditions. These topics are discussed in the following subsections.

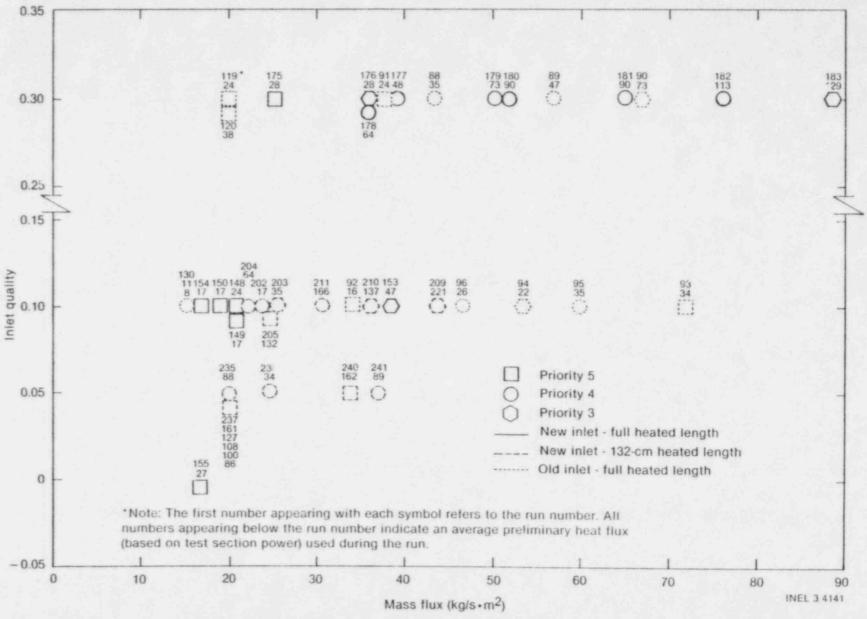


Figure 8. Parametric plot of inlet quality versus mass flux for experiments at 3.5 MPa.

4.2.1 Data Averaging. To reduce the amount of data to a manageable quantity, the raw data (taken at a rate of 50 samples per second) from those channels to be used in the analysis were averaged to obtain a single point to represent each second. This average was obtained by taking the mean value of the middle 10 points of each 50-point segment, and then setting the time to the midpoint of that segment. Although the selection of a 1-s time step was somewhat arbitrary, the averaged data were checked against the original data to ensure that a sampling frequency sufficient for the phenomena being measured was provided. The averaged data were stored on permanent file for later access.

4.2.2 Data Screening. Program DTAFIX was written to screen out any spurious data introduced by voltage spikes in the data acquisition system. The standard deviation was calculated at each data point using the point in question, as well as the 10 preceding and the 10 following. If the data point in question fell outside 2 standard deviations, it was replaced with the same value as the preceding data point.

Any corrections to the data were also made in program DTAFIX. These changes were a result of known offsets and/or uncertainties in the data, as detailed in Appendix E. The corrected data were also stored on permanent file to be used as input to the data reduction program.

4.2.3 Data Reduction and Calculation of Local Conditions. The data reduction program was written such that either steady-state (fixed quench front in the lower hot patch) or quasi-steady-state (moving quench front) runs could be analyzed.

Inherent in the reduction of the experimental data described in this section is the assumption that the mass flow, heat generation, and test section inlet conditions are constant over each time step. Neglecting the transient terms in the analysis of the hydraulic side of the experiment is in keeping with the assumptions of a quasi-steady-state experiment, as discussed in Section 4.1. The largest degree of uncertainty introduced by this assumption is due to the effects of mass storage in those low void and subcooled experiments. However, due to the long duration of these runs, the effect is minimal for even these cases. The change in the stored energy of the test section due to heating or cooling of the tube is, however, accounted for from time step to time step.

For the calculation of heat flux, the test section was divided into segments defined by the available wall thermocouples for that particular run. The segments were defined from the midpoint between adjacent thermocouples; consequently, the thermocouple is generally not at the midpoint of the segment, nor are the segments of equal length. If, for any given run, a thermocouple had failed, the adjacent segments were automatically increased in length. All thermal variables were considered constant throughout each segment for any given time step.

The hydraulic or fluid segments were defined from thermocouple location to thermocouple location such that the top of each fluid segment corresponded to a thermocouple elevation. When vapor probes were encountered in a fluid segment, additional calculations were made to define local hydraulic conditions at the probe locations.

The calculation sequence is shown in the flow chart in Figure 9. The function of the individual subprograms is discussed below.

Data input to the reduction program are read via subroutine SETUP. In addition to the experimental data which are read from the previously described DTAFIX file, the user must input identification and geometry information defining the location of the thermocouples and vapor probes. The start and stop times for the analysis are included, as well as the selection of options concerning heat loss calculations. Once the data are read in, the program sets up the tube heat transfer and fluid segments and then determines which segments are associated with the vapor probes. Further program description is supplied in Appendix E.

Subroutine QFRONT is called next to determine the quench times for each test section wall thermocouple location for the moving quench front runs. This subroutine looks at all the data on the file and is not limited by the start and stop time input by the user. The quench times are defined as the time when the dT/dt of the test section wall thermocouple is maximum, once the value exceeds 10 K/s. Figure 10 presents a typical thermocouple trace at the 115.6-cm elevation for Run 102, showing the maximum dT/dt determined, which was 39.5 K/s at 417.5 s. The subroutine then calculates the quench front location and velocity as a function of time and finds the quench times, regardless of whether the tube is quenching from top or bottom,

or both. Figure 11 is a typical plot obtained for Run 102. The computed quench front elevation and velocity are limited to the bottom-up quench.

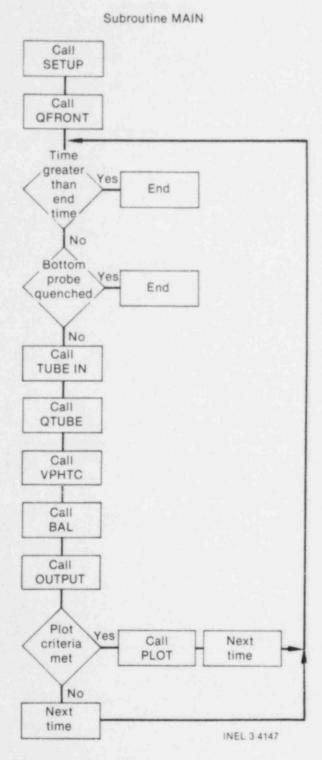


Figure 9. Flow chart for MAIN program showing calculational logic for data analysis.

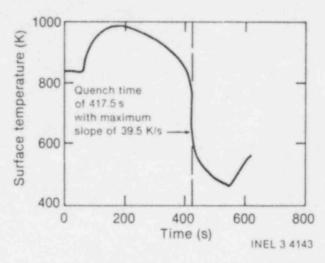


Figure 10. Typical thermocouple response denoting quench point (maximum dT/dt).

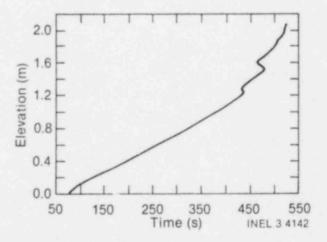


Figure 11. Typical plot of quench front elevation as a function of time.

The two previously described subroutines are called only once during the execution of the data reduction program. The balance of the analysis steps are performed for each time step (1 s) for only the duration selected by the user.

The thermal-hydraulic state of the fluid entering the test section is determined in subroutine TUBEIN. The fluid enthalpy entering the lower hot patch is determined from the loop pressure (PE-3) and the temperature at the flow control valve (TE-FCV-1T). This neglects heat losses between TE-FCV-1T and the lower hot patch, since that line has heater tape set to the saturation temperature. The flow rate is calculated from the orifice differential pressure measurement, and the fluid density is defined by the loop pressure and temperature. The change in enthalpy as a result of the lower hot patch

can be included, if the user desires and if the power input to the lower hot patch minus the calibrated heat losses to the environment are considered. As noted previously, except for the steady-state runs, the lower hot patch temperature was maintained as close as possible to the saturation temperature, thus minimizing any transfer of heat from the lower hot patch to the fluid.

Subroutine QTUBE calculates the inside tube wall temperature and the local heat flux from each tube segment to the fluid for each 1-s time interval. The local convective energy transport is calculated by considering each component separately in the energy balance for the individual tube wall segment, as shown in Figure 12.

$$Q_{gen} + Q_{acon} - Q_{conv} - Q_{loss}$$

$$= A_{metal} QC \Delta T \Delta Z$$
 (1)

Qcony, the heat transferred to the fluid, is then

$$Q_{conv} = Q_{gen} + Q_{acon} - Q_{loss}$$
$$- A_{metal} QC \Delta T \Delta Z$$
 (2)

where A_{metal} QC ΔT ΔZ represents the change in tube wall stored energy for a 1-s time interval. Appendix K presents greater detail on the evaluation of each of the above terms.

In actuality, the axial conduction term was not included in the above energy balance because it is small, except around the quench front, and even there does not affect the net deposition of energy to the fluid. The Q_{loss} term is optional, as specified by the user, and was used only for the steady-state runs. However, it did influence the selection of the data points chosen from the quasi-steady-state runs and is discussed in Section 4.3 and Appendix I.

The calculation of local fluid conditions at each thermocouple takes place in subroutine BAL. The program sums the heat flux from the tube wall to the fluid, calculates the local enthalpy, and then calculates the io al equilibrium quality from

$$XE = \frac{h_e - h_f}{h_{fg}}$$
 (3)

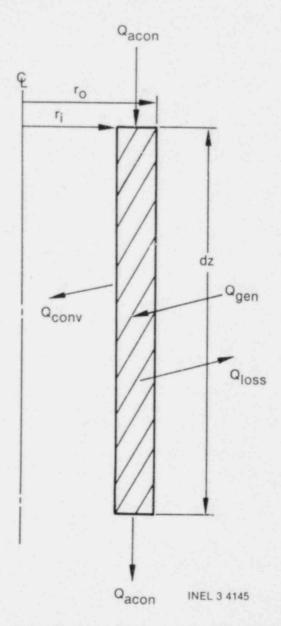


Figure 12. Energy balance for tube wall segment.

and equilibrium homogeneous (assuming no slip) void fraction from

VOIDE =
$$\frac{XE}{XE + \frac{\varrho_g}{\varrho_f}(1 - XE)}$$
 (4)

A heat transfer coefficient, based on saturation temperature, is defined for each level.

The actual vapor temperature is measured at the elevation of the vapor probes. Consequently, it is possible to calculate the actual quality as determined from

$$XA = \frac{h_e + h_f}{h_v - h_f} \tag{5}$$

and the actual homogeneous void fraction as given by

$$VOID = \frac{XA}{XA + \frac{\varrho_{V}}{\varrho_{f}}(1 - XA)}.$$
 (6)

The actual quality reflects the nonequilibrium of the process and may also be called the flow quality. See Lahey and Moody⁷ for a discussion of the different definitions of quality which may be used.

The results of the data reduction analysis are preserved in several ways. The printed output is stored on microfiche. As a part of the data reduction program, plots of wall temperature versus elevation are generated each time a thermocouple quenches; these plots are also stored on microfiche. The plot file is stored on permanent file so that hard copies can easily be made. All of the calculated variables are also stored on permanent file, which is ultimately reformatted to CWAF format for ease of plotting variables versus time. When all the permanent files for any one run are completed, they are all transferred to tape for storage.

The final magnetic tape for each run contains the following files:

AVE*** Averaged data FIX*** Corrected and screened data RZT*** Results from data analysis run PLT*** Plot file for temperature/elevation plots CALA*** CALB*** CWAF files of calculated variables as CALC*** a function of time CALD*** CALE*** CALF***

where *** represents the experiment run number.

4.2.4 Calculation of Vapor Generation Rates. From the vapor continuity equation, the volumetric vapor generation rate, Γ , may be written as

$$\Gamma = G \frac{d(XA)}{dz} . (7)$$

The actual quality, XA, could be determined as discussed in the preceding section. For those experiments which had multiple probes operating, the rate of change of actual quality with respect to length was obtained using a simple forward finite difference evaluation. As shown, multiplication of the resulting value by the measured mass flux yields the volumetric vapor generation rate. If only two vapor probes were in operation, a single value of volumetric vapor generation resulted and, due to the difference scheme, was defined as the \(\Gamma \) at the lowest probe. With three probes in operation, two values of Γ were obtained. The first Γ was found from Probes 1 and 2 and was defined as the \(\Gamma \) at Probe 1. The second Γ was found from Probes 2 and 3 and was defined as the Γ at Probe 2. This forward difference definition of Γ was utilized, as opposed to a central difference scheme which might define the \(\Gamma \) as halfway between the probes, in order that a measured value of vapor temperature at a probe could be used instead of an interpolated vapor temperature from the two probe measurements during the comparison of Γ models with the

The use of multiple vapor probe measurement stations in the calculation of Γ has an advantage over the single-probe measurement coupled with a moving quench front test, such as employed by Evans, Webb, and Chen. 29 The single-probe technique obtains a vapor temperature measurement as the distance from the quench front decreases during the quenching process. Thus, a rate of change of actual quality with respect to length can be calculated; however, this is not with all parameters constant. For this type of experiment, the quality at CHF is changing. Thus, numerous data points must be obtained in order that Γ may be correlated. However, the multiple-probe configuration provides a direct measure of Γ for either steady-state or quasi-steady-state experiments. The data may then also be utilized in the same manner as singleprobe data. One hundred and sixty-two vapor generation rate measurements were obtained from the multiple-probe data. The vapor generation rate data are presented in Appendix H.

4.3 Selection of Reportable Data Points

This section describes the procedure used to select the heat transfer data points reported in Appendix H. Thirty-seven steady-state runs and seventyone quasi-steady-state runs were selected for analysis to cover the range of parameters investigated. One data point at each functioning vapor probe was generally obtained for each steady-state test run, resulting in 83 heat transfer data points. Vapor temperature, wall temperature, flow rate, test section power, and other experimental measurements were analyzed over a period of approximately 100 s to obtain the data point values reported.

Data exist at 1-s intervals for the quasi-steadystate runs, as noted earlier. However, each point does not necessarily represent new information, since these runs change relatively slowly in order to yield steady-state data. Thus, a criterion was developed so that unique data points might be selected. Early analysis of the data indicated that distance from the quench front seems to be one of the key parameters in the results, so that a simple criterion to select unique data points became the quench of each wall thermocouple. This provided measurements with the quench front location typically changing 7.62 cm between each data point. This was the general criterion used in the selection of each quasi-steady-state data point, with some liberties taken if a measured vapor temperature could be obtained, instead of an inferred one, by selecting the point slightly earlier or later than the exact time of quench indicated by a given wall thermocouple.

Using this criterion, the 71 quasi-steady-state experiments yielded actual data points and inferred data points. For each actual data point, the vapor temperature, wall temperature, wall heat flux, and other reported parameters were averaged over a certain time interval, depending on the variation in parameters at the time of the data point. This method resulted in the local time-averaged values reported in Appendix H; and primarily smoothed the variations in calculated wall stored energy, which otherwise would have been large enough to cause a significant error in instantaneous wall heat flux. An alternative method is that suggested by Delhaye, 35 which applies a double-time-integration technique to ensure a continuous first derivative, thus controlling the stored energy term.

As noted earlier in Subsection 4.2.3, the Q_{loss} term of Equation (1) did influence the selection of the quasi-steady-state data points. The Q_{loss} term is caused by two factors; (a) the insulation around the test section, and (b) a gamma densitometer which was installed after Run 50 in an effort to measure density at the 121.92-cm elevation. Generally, the influence of the insulation occurred at

all axial locations along the tube. The influence of the insulation, discussed in greater detail in Appendix I, has a second-order effect, due to the operational procedure and the data selection procedure. The gamma densitometer was installed in an effort to measure density and the calculated slip. The measurement proved unsuccessful and is not reported; however, the gamma densitometer and the clamps used to position the test section produced greater heat losses than those associated with the insulation, causing a local temperature depression due to the nearness of the gamma source (1.27 cm from the tube).

Since a calculation of the local losses to the gamma source and centering clamps was not feasible, a procedure was required to select data for which the losses at the gamma densitometer had become small. From Equation (I-7) of Appendix I, the local cooldown rate is given by

$$\frac{dT}{dt} = \frac{1}{\varrho C} \left[q_{gen} - \left(\frac{4d_i}{d_o^2 - d_i^2} \right) (q_{conv} + q_{loss}) \right], \quad (8)$$

which is the same as Equation (2), except that it is written in terms of heat flux instead of energy. Equation (8) may be rewritten as

$$q'_{conv} = q_{gen} \cdot \left(\frac{d_o^2 - d_i^2}{4d_i^2}\right) \varrho C \frac{dT}{dt}$$
 (9)

where $q'_{conv} = q_{conv} + q_{loss}$. Similarly, Equation (2) yields

$$Q'_{conv} = Q_{gen} - A_{metal} \varrho C \Delta T \Delta Z$$
 (10)

where $Q'_{conv} = Q_{conv} - Q_{loss}$. Thus, q'_{conv} or Q'_{conv} are the quantities which the current data analysis procedure yields, and by ensuring that Q_{loss} or $q_{loss} \approx 0$, the desired Q_{conv} or q_{conv} are obtained.

Two steps were taken to ensure that the heat losses were small enough to yield valid data. If it is required that $dT/dt \le 0$, the losses must be decreasing. This decrease in heat losses results from the fact that the insulation next to the tube or the clamp contacting the tube must have reached the

maximum temperature and be decreasing in temperature. As seen in Equation (8), this requirement only implies that

$$q_{gen} \le \left(\frac{4d_i}{d_0^2 - d_i^2}\right) (q_{conv} + q_{loss})$$
 (11)

and does not yield any information as to the relative magnitudes of q_{CONV} and q_{loss}. The second step employed is to estimate q_{CONV} and compare it to q'_{CONV}. Once this difference is made small enough by waiting until later in the experimental run before data are selected, valid data will be obtained.

To estimate the q_{conv} required by this second step, it is assumed that the heat transfer coefficient upstream of any vapor probe location is continuous and smooth with respect to axial position z. This heat transfer coefficient is obtained on the basis of saturated fluid temperature instead of the superheated vapor temperature, since the vapor temperature is not known. Then, the saturated heat transfer coefficient data upstream of the gamma densitometer is curve fit to yield values through the temperature depression region to yield an estimated saturated heat transfer coefficient which, in combination with the saturated wall superheat, yields the estimated q_{CONV}. Once the difference between the estimated q_{CONV} and q'_{CONV} becomes less than 10% for all thermocouples more than 2 cm upstream of vapor Probe 1, data point selection for that run may proceed.

5. RESULTS

This section discusses the work done both to ensure the validity of the data and to analyze it. To ensure the validity of the data, the replication of several tests was investigated, and a comparison of steady-state to quasi-steady-state test runs was made. In analyzing the data, parametric plots of the ranges and distributions of the test variables are presented. This is followed by the results of a regression analysis, performed to help identify the key parameters. Finally, comparisons between the data and existing correlations and correlation packages used by the advanced computer codes are presented.

5.1 Repeatability

The repeatability of the current tests was checked from several aspects. First, repeated runs of several tests were made to investigate replication for both the steady-state and quasi-steady-state tests. Second, comparison of test results from this test series was made with previously obtained data. Third, comparison was made between different vapor probes as the quench front progressed up the test section during the quasi-steady-state testing.

5.1.1 Repeatability of Individual Tests. The results of three repeated steady-state experiments (12,14, and 36), at a mass flux of approximately 19.5 kg/m²·s and a pressure of 0.4 MPa, are shown in Figure 13. The axial temperature distribution of the test section wall is shown in addition to the vapor superheat measurements. Good replication was observed for these test runs with the vapor temperature within the uncertainty of the measurement. It can be seen that significant vapor superheat occurs and increases with increasing local equilibrium quality or distance from the quench location (lower hot patch). The vapor superheat at the measurement elevations was approximately 75% of the wall superheat, typical of differences encountered in the steady-state experiments. Superheating of this magnitude represents relatively inefficient vapor-to-liquid heat transfer.

The results of two repeated quasi-steady-state experiments are shown in Figure 14. The wall temperature and vapor superheat measurements at the first vapor probe location, 121.92 cm, are plotted as a function of distance from the quench front. This type of plot is obtained for the wall

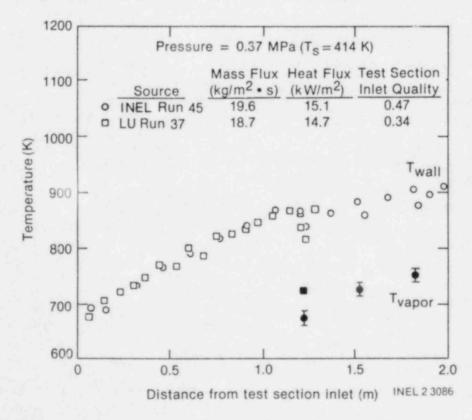


Figure 13. Wall and vapor superheat repeatability for steady-state INEL experiments.

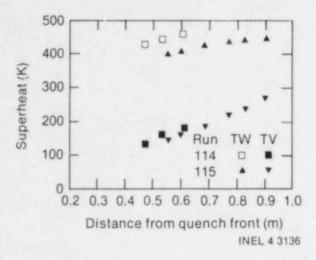


Figure 14. Wall and vapor superheat repeatability for first vapor probe during quasi-steady-state INEL experiments.

temperature by combining the wall temperaturetime history and the quench front elevation history,
as shown in Figures 10 and 11 respectively, in order
to obtain wall temperature as a function of distance
from quench front. Since the test section inlet flow
could not be readjusted during the test and was
somewhat difficult to set up, identical operational
conditions could not be obtained, which accounts
for most of the differences shown in Figure 14. To
investigate how these operational differences
affected the results, the data shown in Figure 14
were used to determine the heat transfer coefficients
shown in Figure 15. The influence of flow differences was then taken into account by assuming that
the functional form of the Chen-Sundaram-

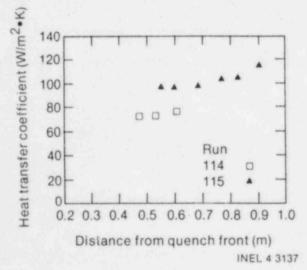


Figure 15. Heat transfer coefficient repeatability for first vapor probe during quasi-steady-state INEL experiments.

Ozkaynak (CSO) phenomenological correlation³⁶ (see Table 1) was correct and using these flow corrections from the CSO to eliminate the flow dependence from the heat transfer coefficient to produce Figure 16. This comparison shows excellent agreement between the two runs. Comparison at other levels is also good and within the data uncertainty.

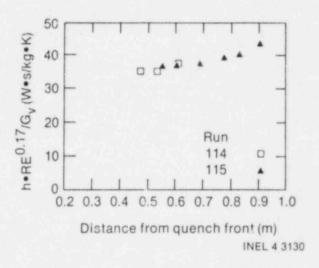


Figure 16. Heat transfer coefficient repeatability for first vapor probe, corrected for flow differences, during quasi-steady-state INEL experiments.

5.1.2 Repeatability With Respect To Other Experimental Data. Two experiments were conducted for the purpose of comparing the results with data taken previously at Lehigh University. ²⁶ Good agreement of wall superheat and vapor superheat was observed for the experiments shown in Figure 17. Reasonable agreement was obtained between the experiments shown in Figure 18. The larger vapor superheat for the Lehigh experiments shown in Figure 18 is due partially to the higher test section wall temperatures upstream of the vapor probe. No data are shown for the Lehigh experiments above the 1.3-m level, since that was the length of their test section.

5.1.3 Repeatability of Multiple Probe Levels for Quasi-Steady-State Runs. As shown in Figure 14, measurements at a given vapor probe location can be plotted as a function of distance from the quench front for the quasi-steady-state runs. With multiple vapor probes available in the test section, multiple measurements are available for a given distance from the quench front. Thus, as shown in Figure 19

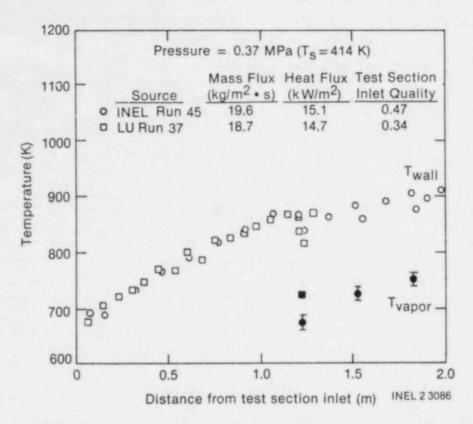


Figure 17. Comparison of wall and vapor superheat between INEL and Lehigh University experiment.

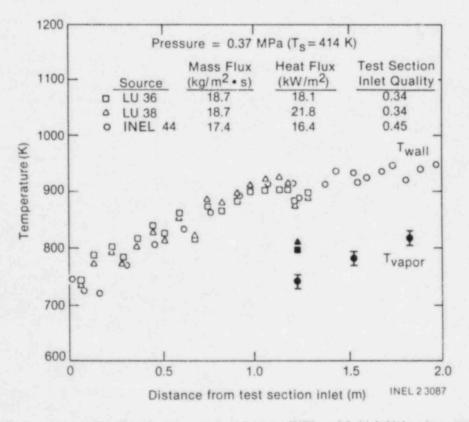
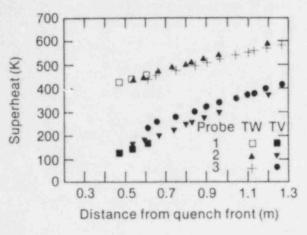


Figure 18. Comparison of wall and vapor superheat between INEL and Lehigh University experiments.



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Figure 19. Multiple-probe wall and vapor superheat measurements for INEL quasi-steady-state Run 114.

for Experiment 114, a comparison can be made for each of the vapor probes available. The three wall temperatures show close agreement. The vapor probe measurements for Probes 1 and 2 are in agreement, with some differences shown in the Probe 3 results.

Since the wall and vapor temperatures are relatively close together, showing significant non-equilibrium, the heat transfer coefficients, shown in Figure 20, indicate a larger difference in heat transfer coefficient for the third vapor probe. Since the dryout quality at the quench front is changing as the quench front progresses up the test section, an exact overlay of the results for the three probes depends on the sensitivity of the heat transfer to the

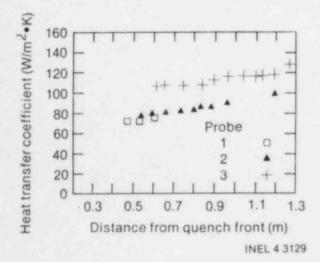


Figure 20. Multiple-probe heat transfer coefficients for INEL quasi-steady-state Run 114.

dryout quality. Thus, the heat transfer coefficients for all three probes should overlay if this sensitivity to dryout quality is low, indicating a slight problem with the third probe measurement. However, if the sensitivity to dryout quality is great enough that an exact overlay should not result, a slight problem with either the first or second measurement must exist. Figure 21 further investigates the results for Experiment 114 by accounting for the vapor flow differences occurring at the different measurement levels, using the same factors as previously used to obtain Figure 16. This indicates that the flow differences which occur between the different levels do not significantly affect the results.

To further investigate the replication of the multiple-level probe results, the results of Experiment 115, which was a repeat of Experiment 114, are presented in Figure 22. Generally, more scatter is observed with both the wall temperatures and vapor temperatures than occurred during Experiment 114, resulting in more general scatter of the heat transfer coefficients of the three probe levels, as shown in Figure 23. Including the flow effect slightly improves the comparison, as shown in Figure 24, but this is not a significant improvement.

From the replication results presented in Subsections 5.1.1 through 5.1.3, it is concluded that good repeatability generally exists within the INEL data base, as well as reasonable comparison with data taken at Lehigh University. Generally, as good or better comparisons are obtained between probes at

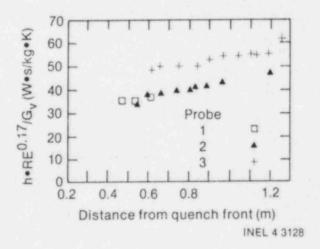


Figure 21. Multiple-probe heat transfer coefficients corrected for flow difference for INEL quasisteady-state Run 114.

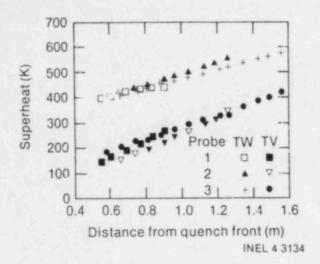


Figure 22. Multiple-probe wall and vapor superheat measurements for INEL quasi-steady-state Run 115.

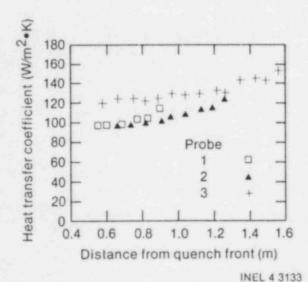
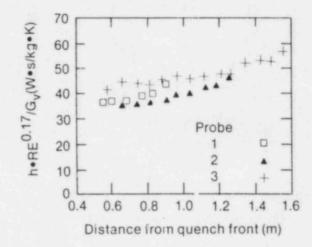


Figure 23. Multiple-probe heat transfer coefficients for INEL quasi-steady-state Run 115.

the same elevation during different runs with similar hydraulic conditions than are obtained between multiple probe results during the same run. This again indicates that the results are repeatable from experiment to experiment, but it also indicates that our capability to account for the differences between experiments (such as power and flow rates) is better than our capability to account for changing local quality or dryout quality within an experiment.



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Figure 24. Multiple-probe heat transfer coefficients corrected for flow difference for INEL quasisteady-state Run 115.

5.2 Steady-State and Quasi-Steady-State Comparison

Quasi-steady-state Experiments 114 and 115, which were discussed in the previous subsection relative to their repeatability, were also performed as counterpart experiments for steady-state Experiments 12, 14, and 36, which were discussed in Subsection 5.1.1. This allows a comparison to be made between steady-state and quasi-steady-state results to help verify the fact that the two types of experiments yield the same results, as suggested in Section 4.1.

Figure 25 shows an overlay of the wall and vapor superheats for these five experiments using the data from all three measurement elevations. A considerable amount of scatter exists, but most of it results from differences between Experiments 114 and 115, as previously discussed. The steady-state superheats generally agree with the quasi-steady-state superheats. Figure 26 provides a plot of the heat transfer coefficient with the previously noted corrections for the flow effect. Here, the steady-state results for the first two vapor probes are in reasonable agreement with the quasi-steady-state results. The steady-state data from the third probe, which are above the quasi-steady-state results, seem to follow the same trends.

5.3 Data Base Comparison of Measured and Calculated Variables

This section presents selected plots of the reduced data obtained from this experimental program. This

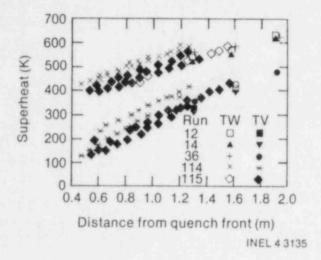


Figure 25. Comparison of wall and vapor superheats for steady-state and quasi-steady-state tests.

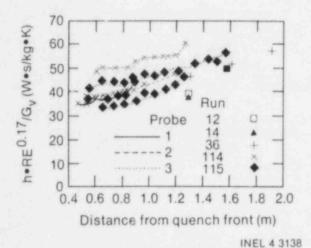


Figure 26. Comparison of heat transfer coefficients for steady-state and quasi-steady-state tests, corrected for flow differences.

is done in order to provide an understanding of the distribution of the data which cannot be obtained from quoted data ranges. Additional parameter-versus-parameter plots are presented on microfiche at the end of the report. Also, a discussion of the synthesized low quality effect, as shown in Figure 1, is presented, since this is available as one data comparison.

As a general rule, the distribution of data over the various parameter ranges is quite uniform, with certain exceptions caused by physical limitations of the system. Figure 27 is a plot of pressure versus mass flux for all the reduced data. There are basically three pressure levels, 0.5, 3.5, and 7.0 MPa, each having a range of mass flux from 10.0 to 70.0 kg/m²·s. There is a slight concentration of low mass flux data at the low pressure range, arising from the steady-state data.

Figure 28 shows the ranges of equilibrium quality and actual quality. There is a uniform spread of data over the equilibrium quality range from 0.1 to 1.1, resulting in an actual quality range of 0.1 to 0.8.

The data ranges for critical heat flux quality and distance from critical heat flux are shown in Figure 29. The quality at the CHF location spans the range from 0 to 0.7 and is fairly uniformly distributed over that range. Data were taken very close to the CHF location and up to about 2 m downstream from the CHF location.

Vapor and wall temperatures are shown in Figure 30. The vapor temperatures cover the range from 400 to 950 K, whereas the wall temperatures range from 650 to 1250 K. The diagonal line on the figure, given by $T_{vapor} = T_{wall}$ - 100, represents a minimum temperature difference between the wall and vapor of 100 K for all of the data.

The two parameters, heat flux and heat transfer coefficient, are plotted in Figure 31. The heat flux spans the range from 0 to 1.8 x 10^5 W/m², whereas the heat transfer coefficient, defined as heat flux/(T_{wall}-T_{vapor}), ranges from 0 to $600 \text{ W/m}^2 \cdot \text{K}$.

Figure 32 is a plot of heat flux versus distance from CHF, and it indicates a lack of data in the distance range above 1.2 m and in the heat flux range above 6.0 x 10⁴ W/m². This data void is a result of having to reduce the length of the test section in order to achieve the higher heat fluxes, thus eliminating the upper two vapor probes.

Figures 33 and 34 show the equilibrium quality and the actual quality plotted against the quality at CHF, respectively. The diagonal line on each plot indicates where the equilibrium quality or the actual quality is equal to the quality at CHF. The equilibrium quality is always greater than the CHF quality for the data, and, theoretically, the actual quality should also be greater than the CHF quality; however, there are a few points where the actual quality is shown to be less than CHF quality. This is caused by the uncertainty in the measured vapor temperature which is used in the calculation of actual quality.

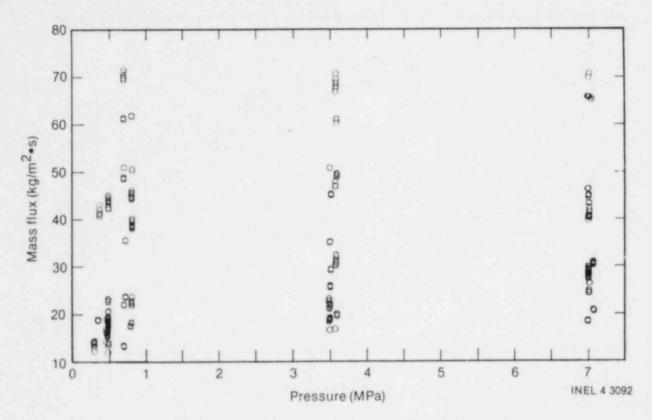


Figure 27. Mass flux and pressure range of reduced data.

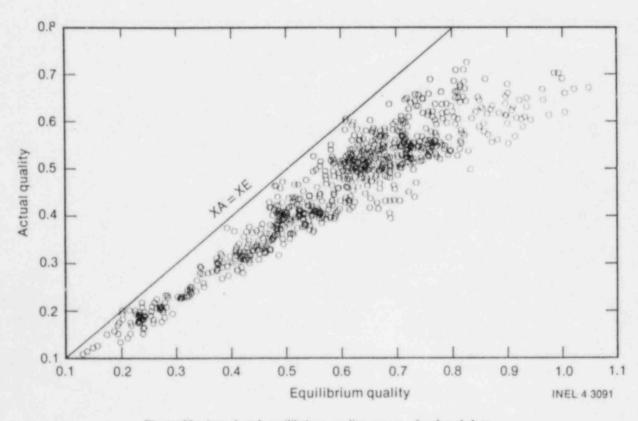


Figure 28. Actual and equilibrium quality ranges of reduced data.

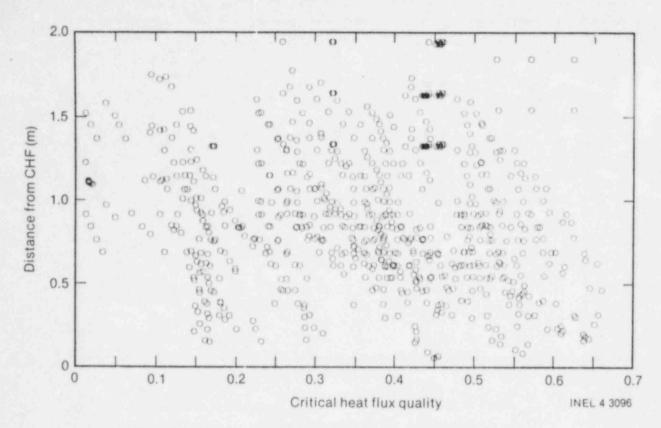


Figure 29. Distance from CHF and CHF quality ranges of reduced data.

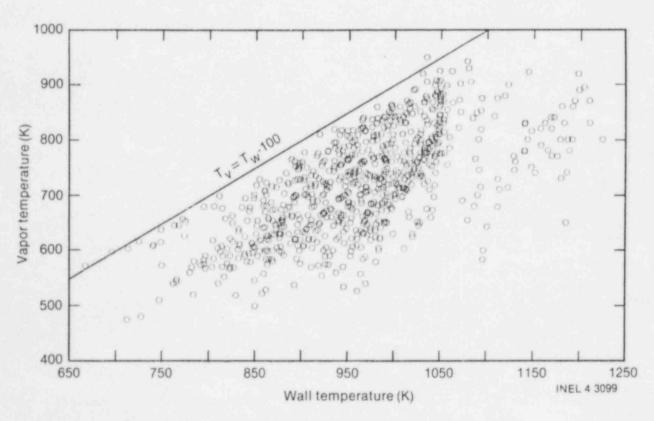


Figure 30. Vapor temperature and wall temperature ranges of reduced data.

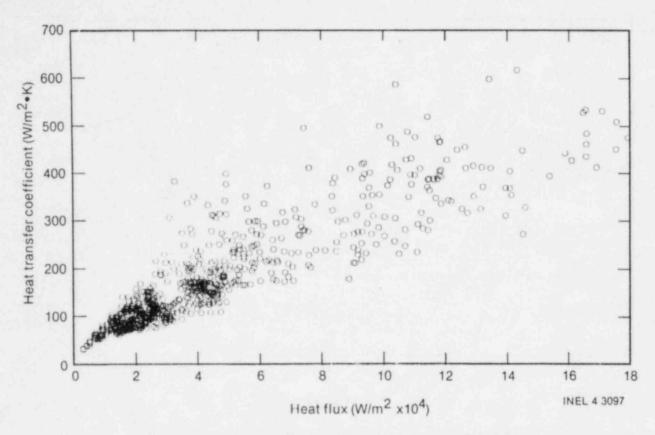


Figure 31. Heat transfer coefficient and heat flux ranges of reduced data.

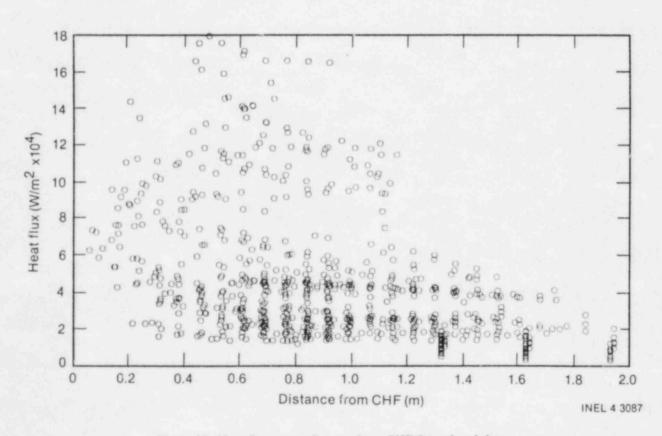


Figure 32. Heat flux versus distance from CHF for reduced data.

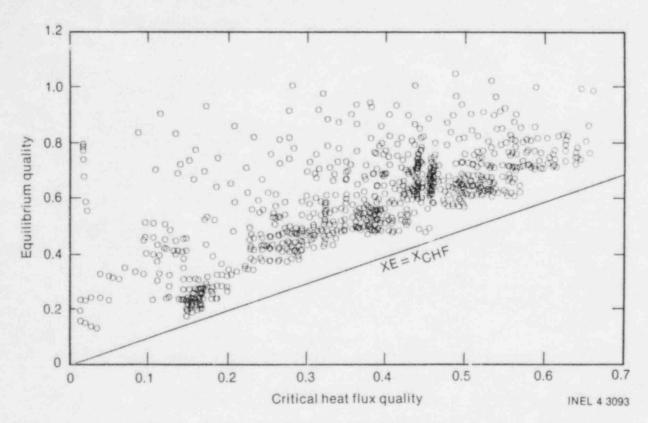


Figure 33. Equilibrium quality versus CHF quality for reduced data.

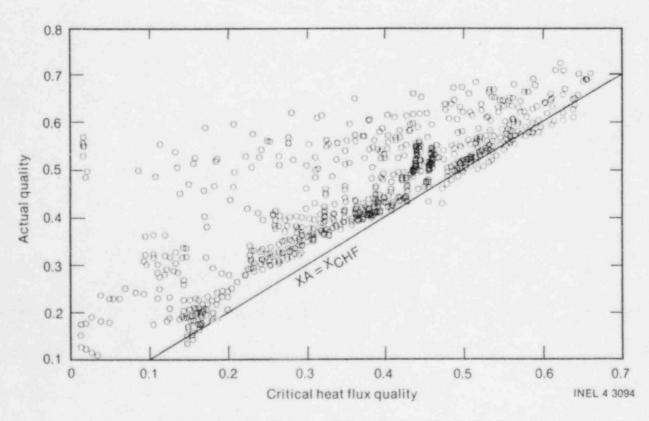


Figure 34. Actual quality versus CHF quality for reduced data.

A plot of the data shown in the equilibrium quality/heat flux plane is shown in Figure 35. No obvious trends exist, such as indicated in Figure 1, due to the influence of the many other variables. For a given experimental run, the equilibrium quality increases as the distance downstream of the quench front increases. The energy added from the wall decreases as the distance downstream of the quench front increases due to the effect of stored energy from the wall. Thus, it can be argued that the heat flux increases as the equilibrium quality decreases for a given experimental run. This trend can be observed in Figure 35 in several strings of the data associated with particular runs. However, this is not the same information as indicated in Figure 1, due to the fact that the wall temperature changes as a function of distance from the quench front. A plot of the data within restricted ranges, in order to produce plots similar to Figure 1, yields results with only limited data for each case, such that direct conclusions cannot be drawn concerning the low-quality effect.

From a thermodynamic nonequilibrium point of view, the quality effect with respect to equilibrium

quality is not meaningful. It was originally suggested that the actual quality would have a trend similar to the equilibrium quality. Plotting the actual quality and heat flux relationship, with respect to Figure 1-type plots, also yields insufficient data on each plot to draw any conclusions. Current thinking, however, questions the validity of the suggested low-quality effect with respect to the actual quality. The void fraction may be a more representative quantity than quality when the non-equilibrium, nonhomogeneous (unequal velocities between the phases) case is considered. Void fraction should replace the quality, x-axis, in Figure 1. Since

void fraction =
$$\frac{XA}{XA + \frac{\varrho_V}{\varrho_f} S(1 - XA)}$$
, (12)

the effects of actual quality (thermal nonequilibrium) and slip combine to yield the void fraction. Due to this coupling of the actual quality and slip to produce the void, the actual quality may or may not exhibit the low-quality effect shown in Figure 1, depending on the slip between the phases.

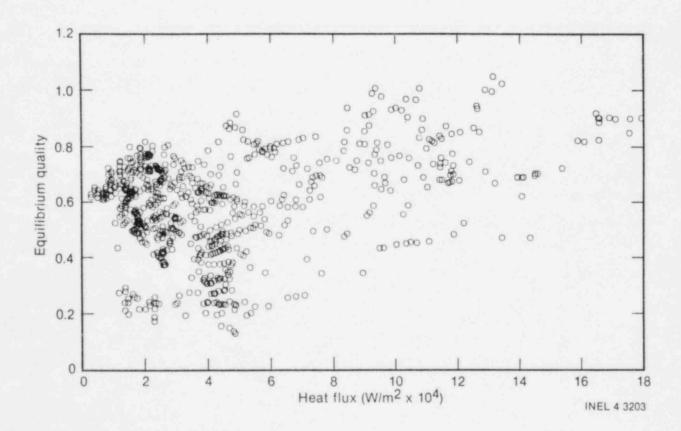


Figure 35. Equilibrium quality versus heat flux for reduced data.

5.4 Statistical Analysis of Wall Heat Transfer Data

A statistical fit of the data was performed using linear regression analysis techniques. It is not intended that the fit of the data provide a new correlation to be applied in the film boiling region, but rather that it provide (a) insight into the data trends from this experiment and (b) a means to determine which parameters are important to the heat transfer process.

The primary tool for this analysis was the STEP-WISE linear regression code.³⁷ The STEPWISE regression analysis procedure uses a forward stepwise regression method to analyze a linear regression model having as many as 25 terms, including the intercept and dependent variable.

In the stepwise procedure, intermediate results are used to give valuable statistical information at each step in the calculation. These intermediate answers are also used to control the method of calculation. A number of intermediate regression equations are obtained by adding one variable at a time, thus giving the following intermediate equations:

$$Y = B_0 + B_1 X_1 (13)$$

and

$$Y = B_0 + B_1 X_1 + B_2 X_2$$
, etc.

The coefficients for each of these intermediate equations and the reliability of each coefficient are obtained by the stepwise procedure. The values and reliability may vary with each subsequent equation. The coefficients represent the best values when the equation is fitted by the specific variables included in the equation. The variable that is added is the one which gives the greatest reduction in variance of the dependent variable.

A variable may be significant at an early stage and enter the regression equation. After several other variables are added to the regression equation, a variable in the equation may become insignificant. Under this situation, the stepwise regression procedure will remove the insignificant variable before adding an additional variable. Thus, at the various steps in the regression procedure, only those variables which are significant will be included in the regression equation.

The terms used in the statistical fit were selected on the basis of the following criteria:

- Parameters thought to be important to the mechanism involved.
- Appropriate dimensionless parameters.
 The variables in the dimensionless parameters may be evaluated at more than one set of conditions.
- Parameters suggested by their use in other correlations.

On the basis of the above criteria and initial results from the regression analysis, key parameters for the heat transfer coefficient of the phenomena were obtained. These were found to be: (a) the vapor Reynolds number, RE_V, reflecting the influence of vapor flow rate on the process; (b) the vapor Prandtl number, Pr_V, accounting for the physical properties of the superheated vapor; (c) an (XE/XA) term, representing nonequilibrium effects [its presence indicates that heat flux is not a true linear function of (T_{wall} - T_{vapor})]; and (d) the two remaining terms, X_{CHF} and (1-DZQF/D), which represent the influence of the quench front hydraulics and distance from the quench front

The Reynolds and Prandtl numbers are standard parameters included in many correlations. Nonequilibrium effects have been included by several investigators, indicating their influence on post-CHF heat transfer. Andersen³⁸ included a term for the vapor superheat or the vapor enthalpy for a model of inverted annular flow. Within the data base obtained in this program, it is probable that the inverted annular flow regime existed near the quench front for the higher pressures and lower inlet qualities. Chen, Sundaram, and Chen³⁹ included a nonequilibrium term, A, attributed to an increased sink effect of the liquid drops in dispersed flow. The effects of distance from the quench have also been included by several post-CHF researchers. Andersen's inverted annular film boiling model³⁸ with a laminar vapor film yielded a heat transfer coefficient proportional to DZQF-1/4. Similar models, requiring a numerical solution, have been obtained by Chan and Yadigaroglu40 and Denham. 41 Chen, Sundaram, and Chen 39 also included an entrance region effect in their dispersed flow, post-CHF correlation, which was written in terms of the distance from the quench front, DZQF. This entrance region was determined to exist for

length-to-diameter ratios of 100 or less. For the 15.39-mm tube tested here, the entrance region effect for dispersed flow should be considered for DZQF < 1.539 m. As shown in Figure 32, this is a significant portion of the data.

The effect of quality at CHF has been shown by Yu and Yadigaroglu⁴² to have an influence on inverted annular flow. They included the effect in the quality rise at the quench front due to its passage and the differences between the subcooled inlet and saturated coolant at the quench front. They also correlated a heat transfer coefficient exponentially decaying with respect to distance from the quench front. No models are known which have included the effects of CHF quality in the dispersed flow regime.

It is important to realize that these quantities [(XE/XA), X_{CHF}, and (1-DZQF/D)] represent effects which were found to be significant but which may not be formatted in terms of the physical variables truly influencing the phenomena. For example, distance from the quench front may, in reality, be only the best parameter available to reflect the effects of slip between the phases. However, since slip was not measured, it cannot be included in the analysis.

The correlation obtained for the vapor Nusselt number, Nu, from the regression analysis yielded the results shown in Table 1. The importance of each term is reflected by the absolute value of the t-value (first column) relative to the others. It is interesting to note that the vapor Reynolds number (RE_V) correlates with an exponent of approximately 0.8, as it should. To simplify the correlation, the exponents of RE_V and Pr_V were then set to 0.8 and 1.0, respectively, and a final statistical fit was made. The t-values obtained from the final fit are listed in the right-hand column of Table 1.

The final statistical fit of the 766 data points is

$$h = \frac{0.073454 \text{ RE}_{V}^{0.8} \text{ Pr}_{V} (\text{XE/XA})^{2.6314} \text{ k}_{V}}{X_{CHF}^{0.28459} \left(1.0 + \frac{\text{DZQF}}{\text{D}}\right)^{0.44031} \text{ D}}.$$
(14)

The heat transfer coefficient is defined as $h = q_{total}/(T_{wall} - T_{vapor})$. The tube diameter would not be shown to be statistically important, because all the data were taken with the same tube. It was used to maintain nondimensionality in the correlating parameters. As can be seen in Table 1, the t-values (right-hand column) for the remaining quantities, once RE_V and Pr_V are fixed, change little.

Figure 36 shows a plot of measured heat flux versus predicted heat flux using the above regression

Table 1. Parameters for nonequilibrium wall heat transfer correlation

Term	Exponent	't' Value	Exponenta	't' Value
RE_{V} Pr_{V}	0.80272	41.8	0.8	-
	1.0487	6.6	1.0	-
XE/XA	2.6557	21.8	2.6314	24.9
X_{CHF}	-0.28479	-19.0a	-0.28459	-19.8a
1 + DZQF/D	-0.43605	-19.9a	-0.44031	-25.3a

a. Negative t-values accompany negative exponents.

b. Obtained by fixing exponents for RE_v to 0.8 and Pr_v to 1.0.

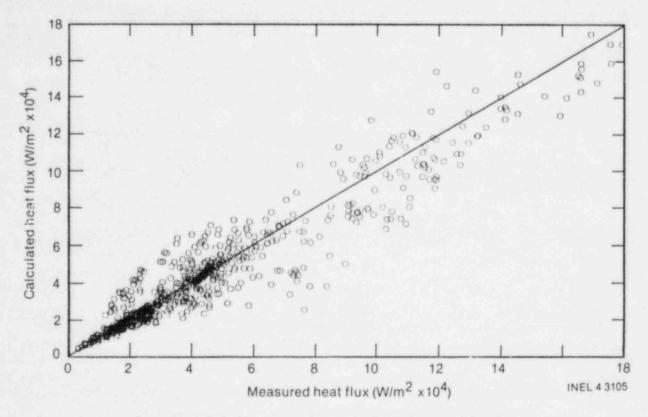


Figure 36. Calculated versus measured heat flux for statistical data fit.

fit, where the calculated heat flux is defined as h(T_{wall}-T_{vapor}). The regression fit has a standard deviation of about 24% with respect to the data used for its development. Figures 37 through 44 show residuals [(q_{meas}-q_{calc})/q_{meas}], for several parameters, some of which were included in the regression analysis and some of which were not. No parametric trends were observed, indicating a good representation of the data using the key parameters which have been discussed.

As noted earlier, it is not intended that the results of this regression analysis provide a new film boiling correlation, even though a 24% standard deviation does indicate a respectable result. The problem is that such a statistically based correlation cannot be used with any confidence outside its data base. It is also questionable whether a single mechanism is controlling the entire data base, as a single correlation implies. This is particularly true of the high-pressure, low-quality data compared to the low-pressure, highquality data. Also, the vapor Reynolds number spans the range of 2000 to 25,000, indicating that both laminar and turbulent data exist in the data base. Therefore, the modeling of a data base this broad may require the use of an additive-type correlation, such as developed by Chen-Sundaram-Chen 39 to incorporate several mechanisms.

5.5 Data Comparison With Existing Wall Heat Transfer Correlations

This section presents comparisons of the final data base with six correlations and a correlation package which are currently in use throughout the nuclear safety industry. The correlations are given in Table 2. The heat transfer package is that used in TRAC-PD2/MOD1, ⁴³ which is summarized in Appendix L.

Three of the correlations used in the data comparisons were developed and are commonly applied, assuming saturation conditions for both the liquid and the vapor. The comparisons for these correlations—which include the Dougall-Rohsenow, the Groeneveld 5.7, and the Condie-Bengston IV correlations—were made on the basis of heat flux, with the calculated flux defined as h(T_{wall} - T_{sat}).

The Dougall-Rohsenow correlation, when applied in this manner, produced the best overall fit of the data of all the correlations, as shown in Figure 45.

The Groeneveld 5.7 and the Condie-Bengston IV are both statistically based correlations and were

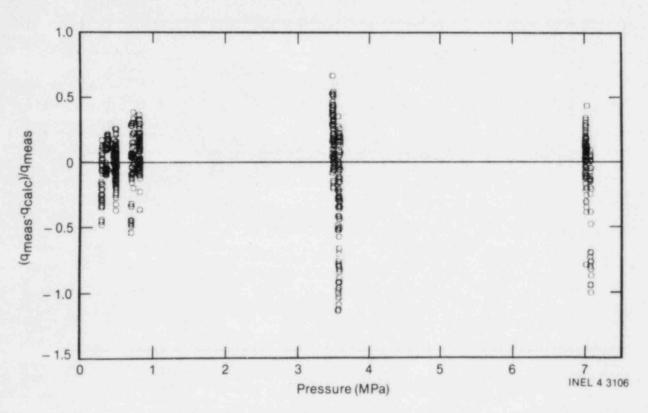


Figure 37. Pressure residual for statistical data fit.

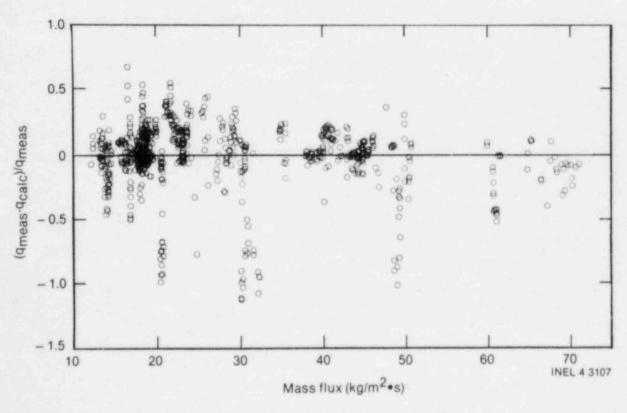


Figure 38. Mass flux residual for statistical data fit.

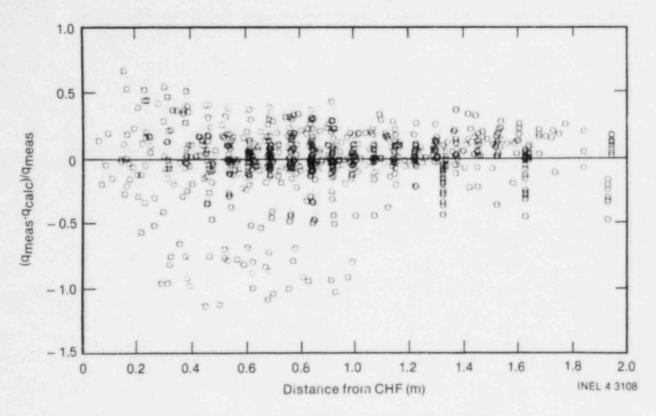


Figure 39. Distance from CHF residual for statistical data fit.

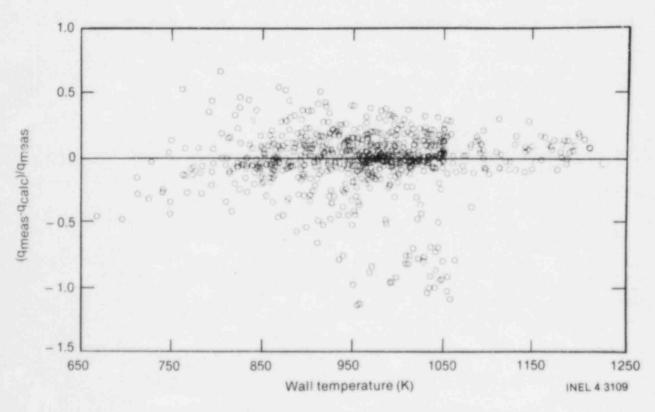


Figure 40. Wall temperature residual for statistical data fit.

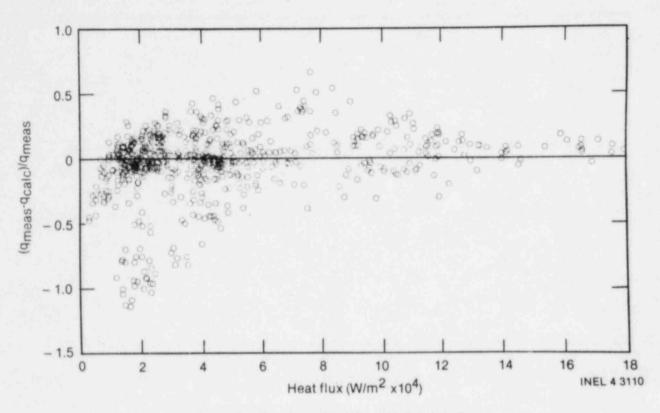


Figure 41. Heat flux residual for statistical data fit.

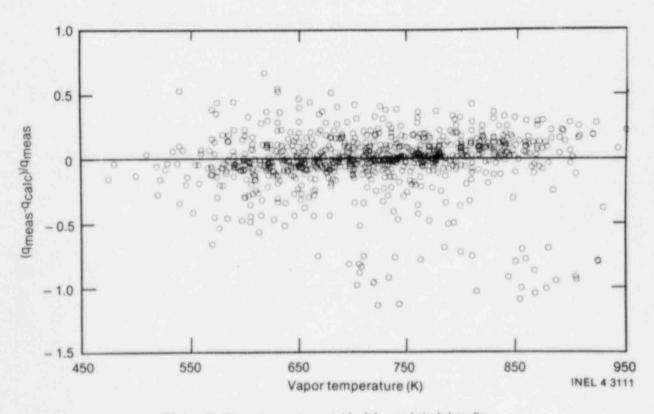


Figure 42. Vapor temperature residual for statistical data fit.

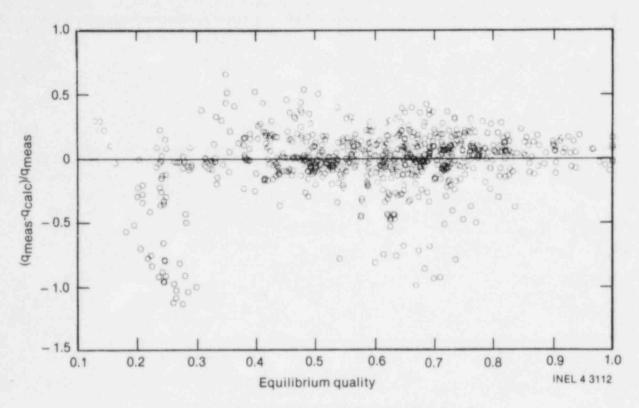


Figure 43. Equilibrium quality residual for statistical data fit.

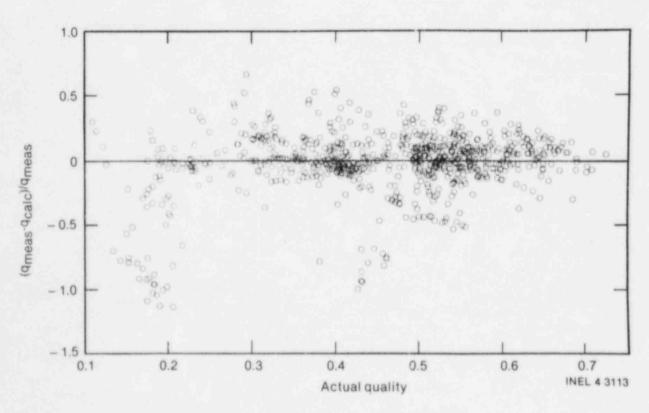


Figure 44. Actual quality residual for statistical data fit.

(1) Dittus-Boelter44

$$h \; = \; 0.023 \, \frac{k}{D} \, RE_{_{_{\boldsymbol{V}}}}^{}^{} 0.8 \, Pr_{_{_{\boldsymbol{V}}}}^{}^{} \ . \label{eq:hamiltonian}$$

The heat flux q is defined as

$$q = h(T_{wall} - T_{vapor}).$$

(2) Chen-Sundaram-Ozkaynak³⁶

$$h = 0.5 F G_v C_{vf} Pr_{vf}^{-2/3}$$

where

$$F = 0.037 RE^{(-0.17)}$$

$$RE = \frac{D\varrho_{v} V_{ft}}{\mu_{v}}$$

$$V_{ft} = (G XA/\varrho_v) + [G(1 - XA)/\varrho_f]$$

$$C_{vf}$$
 = specific heat evaluated at $\frac{T_{wall} + T_{vapor}}{2}$

$$Pr_{vf} = Prandtl number evaluated at \frac{T_{wall} + T_{vapor}}{2}$$

The heat flux is defined as

$$q = h(T_{wall} - T_{vapor}).$$

(3) Dougall-Rohsenow (saturated vapor)⁴⁵

$$h = 0.023 \frac{k_g}{D} \left\{ RE_g \left[XE + \frac{\varrho_g}{\varrho_f} (1 - XE) \right] \right\}^{0.8} Pr_g^{-0.4}$$

The heat flux is defined as

$$q = h(T_{wall} - T_{sat}).$$

(4) Dougall-Rohsenow (evaluated using superheated vapor temperature)

$$h \, = \, 0.023 \, \frac{k_v}{D} \left\{ \!\! RE_v \!\! \left[\, XA \, + \frac{\varrho_v}{\varrho_f} (1 - XA) \right] \!\! \right\}^{0.8} \, Pr_v^{-0.4} \quad . \label{eq:hamiltonian}$$

Table 2. (continued)

All terms are the same as (3), but evaluated at the superheated vapor conditions.

The heat flux is defined as

$$q = h(T_{wall} - T_{vapor}).$$

(5) Groeneveld 5.75

$$h = 0.0520 \frac{k_g}{D} \left\{ RE_g \left[XE + \frac{\varrho_g}{\varrho_f} (1 - XE) \right] \right\} 0.688 Pr^{1.26} Y^{(-1.06)}$$

where

$$Y = 1.0 - 0.1 \left(\frac{e_g}{e_f} - 1.0\right)^{0.4} (1 - XE)^{0.4} .$$

The heat flux is defined as

$$q = h(T_w - T_{sat}).$$

(6) Condie-Bengston IV46

$$h = \frac{0.05345 k_g^{0.4593} Pr_w^{2.2598} RE_g^{[0.6249 + 0.2043 ln (XE + 1)]}}{D^{0.8095} (XE + 1)^{2.0514}}$$

where

Prw = Prandtl number evaluated at wall temperature.

The heat flux is defined as

$$q = h(T_{wall} - T_{sat}).$$

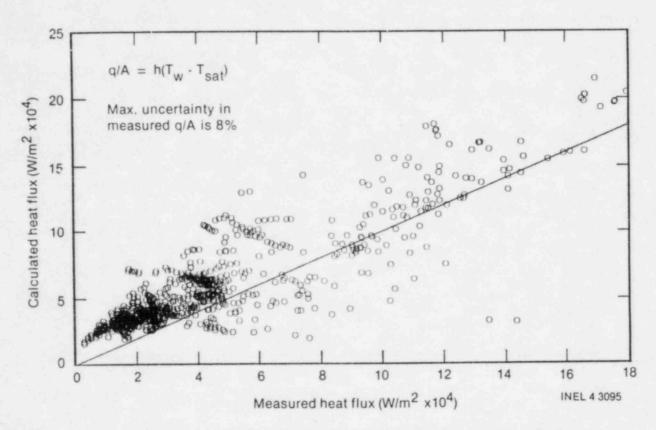


Figure 45. Calculated versus measured heat flux for Dougall-Rohsenow saturated correlation.

developed from similar data sets. As a result, the two correlations are similar. The Groeneveld 5.7 correlation generally overpredicts the data, whereas the Condie-Bengston IV correlation falls somewhere in the middle. The scatter is very large for both correlations, as shown in Figures 46 and 47.

The Dittus-Boelter and Dougall-Rohsenow correlations were developed without consideration of nonequilibrium effects. They have since been applied in nonequilibrium situations by evaluating the properties at the superheated conditions and using a temperature potential of (Twall - Tvapor). Comparisons of the nonequilibrium correlations were made on the basis of heat transfer coefficient. Comparison to the data shows similar results for both correlations, which underpredict most of the data, as shown in Figures 48 and 49, with the Dougall-Rohsenow correlation calculating somewhat smaller heat transfer coefficients than the Dittus-Boelter Correlation.

The Chun-Sandaram-Ozkaynak (CSO) correlation was developed as a mechanistic, non-equilibrium correlation, using mostly tube film boiling data in which the vapor temperatures were inferred. Figure 50 shows the calculated heat

transfer coefficient as the measured value. The response is very similar to the Dittus-Boelter and Dougall-Rohsenow correlations in that it underpredicts the majority of the data.

The TRAC heat transfer package is made up of several correlations representing individual heat transfer mechanisms. The package calculates the heat transfer from the wall to the liquid and from the wall to the vapor and then sums to define the total. The comparison shown in Figure 51 is based on heat transfer coefficient, where the calculated heat transfer coefficient is defined as h = (qliquid qvapor)/(Twall - Tvapor). The correlation package significantly overpredicts all of the data, except for two points. As noted in the description of the package in Appendix L, the vapor heat transfer is taken as the maximum of the Bromley, Dougall-Rohsenow, and natural circulation correlations. For the range of these data, the Bromley correlation is the maximum in each case and dominates the calculated heat transfer.

During the reduction of the data, no attempt was made to separate the wall heat flux into radiation and convection components, because the radiation was assumed small relative to the convection. For

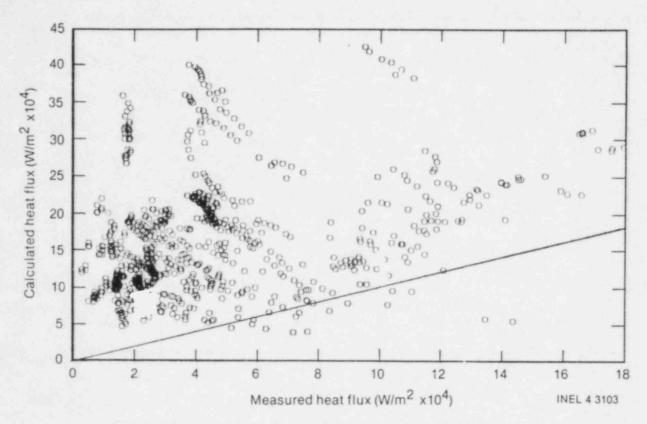


Figure 46. Calculated versus measured heat flux for Groenevelt 5.7 correlation.

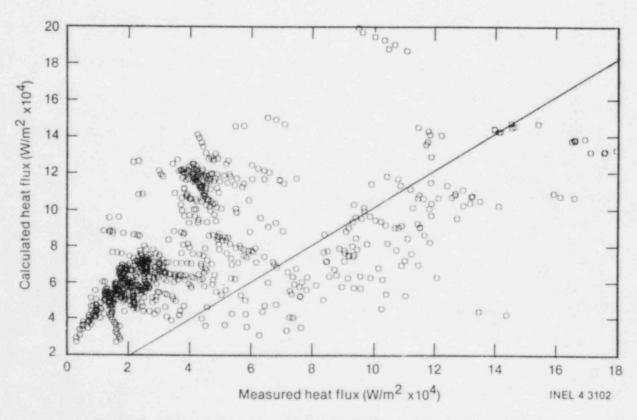


Figure 47. Calculated versus measured heat flux for Condie-Bengston IV correlation.

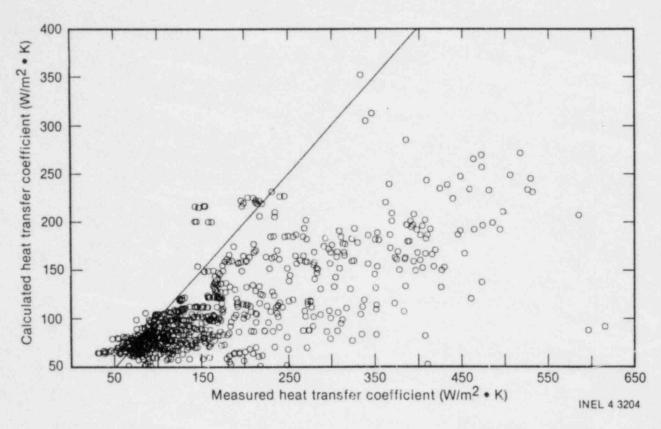


Figure 48. Calculated versus measured heat transfer coefficient for Dittus-Boelter correlation using superheated properties.

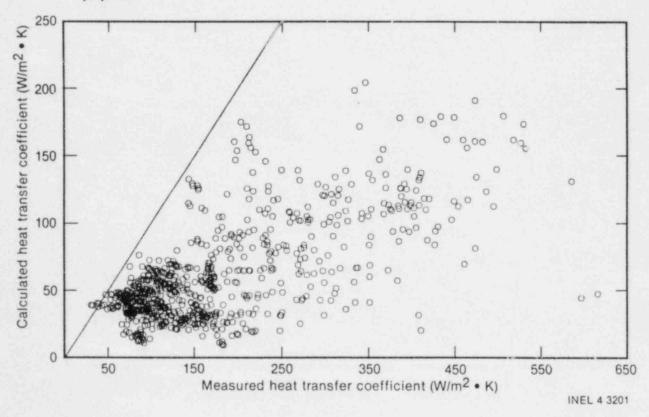


Figure 49. Calculated versus measured heat transfer coefficient for Dougall-Rohsenow correlation using superheated properties.

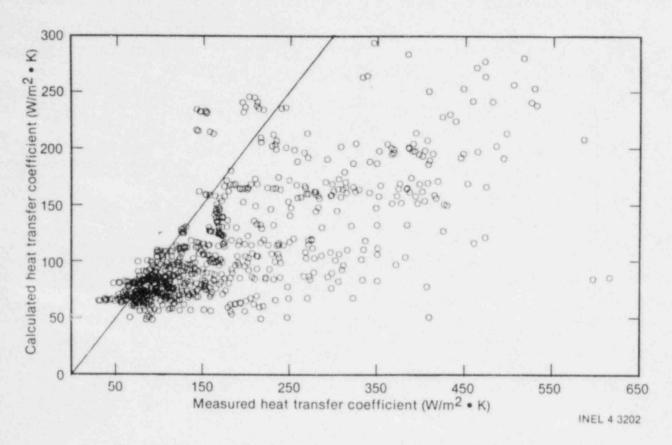


Figure 50. Calculated versus measured heat transfer coefficient for CSO correlation.

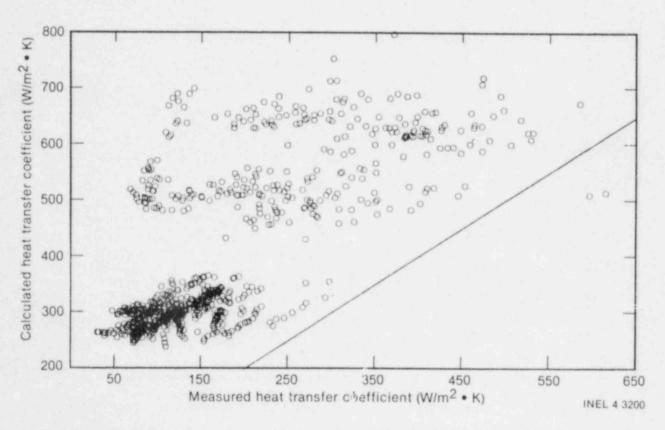


Figure 51. Calculated versus measured heat transfer coefficient for TRAC heat transfer package.

the same reason, no special attempt was made to include a radiation term in the correlations. The TRAC heat transfer package includes a radiation term in the liquid heat transfer, but it was negligible for these data ranges. The Groeneveld 5.7 and the Condie-Bengston IV correlations are statistical fits of data which were also reduced without separating the radiation term. Consequently, the radiation effects are inherent in the correlations.

Residual plots for each of the correlations were made as functions of pressure, mass flux, distance from CHF, wall temperature, heat flux, vapor temperature, and equilibrium and actual quality. The residual plots provide visual examination of the trends of the correlations with respect to the individual parameters. These plots are contained in Appendix M. A discussion of each parameter, with respect to the correlations in general, is presented next. As a general rule, parameter trends exhibited in one correlation were observed in several or all of the others.

- **5.5.1 Pressure.** There is a definite trend in each correlation at pressures below about 1.0 MPa. If the correlation generally underpredicts the data, it underpredicts less at these low pressures. If the correlation overpredicts the data, in general it overpredicts more at the low pressures. The trend is most pronounced in the Groeneveld 5.7 correlation and least obvious in the TRAC package.
- **5.5.2** Mass Flux. There is a general trend in all of the correlations to overpredict the heat flux at the lower mass flow rates. In the Condie-Bengston IV and the TRAC correlations, the trend is observed over the full range of mass flows; whereas, for the rest of the correlations, the trend is limited to mass fluxes below 20 kg/m²·s.

The trends in pressure and mass flux are very similar. However, there appears to be sufficient data over both the pressure and mass flux ranges to conclude that these trends are independent.

5.5.3 Distance from CHF. Except for the TRAC correlation package, there is an observable trend to overpredict the data as the distance from CHF increases. The trend is general in the Dittus-Boelter, Dougall-Rohsenow, and CSO correlations, and more severe in the Condie-Bengston and Groeneveld correlations. None of the correlations include terms to correlate the distance effect.

5.5.4 Wall Temperature. There is a general trend in all the correlations to overpredict the heat flux at the lower wall temperatures. As the temperature increases, the correlations overpredict less or begin to underpredict the heat flux. At wall temperatures above approximately 1050 K, there is a noticeable decrease in the data scatter; and the above-described trend is no longer evident. There does not appear to be a data void in any of the other parameters which could be associated with this change at 1050 K.

5.5.5 Heat Flux. There is a trend associated with heat flux that is very similar to that described earlier for pressure, i.e., overprediction at low values. There is a heavy concentration of data with heat fluxes below $6 \times 10^4 \, \text{W/m}^2$ which also have pressures below $1.0 \, \text{MPa}$; consequently, it is impossible to determine whether this trend is actually associated with heat flux.

5.5.6 Vapor Temperature. None of the correlations appears to have a significant trend with respect to vapor temperature. There is, however, a definite increase in the data scatter as the vapor temperature decreases.

5.5.7 Quality. Residual plots were made for both equilibrium and actual quality, but the exhibited trends were basically the same for both, except that the trends were shifted to a lower value for the actual quality. The most obvious trend is for all the correlations to overpredict the data for equilibrium qualities of about 0.6. Some of the correlations show this trend more than others and some over a slightly wider quality range. The Condie-Bengston IV and TRAC correlation packages also overpredict the data at equilibrium qualities of about 0.25.

The residual plots also show the trend of underprediction of the heat flux at the lower equilibrium qualities, as would be suggested by Figure 1. As noted earlier, from a nonequilibrium nonhomogeneous standpoint, the trend with respect to quality has limited meaning.

5.6 Vapor Generation Rate Correlations and Comparisons

The vapor generation rate has two bounding cases. The thermodynamic equilibrium model implies that the vapor temperature is always equal

to the saturation temperature. No vapor superheating occurs, and all of the energy from the heated walls goes directly into evaporation of the liquid droplets. The other bounding case is the frozen droplet model. This model implies that the flow quality is frozen at a fixed quality, with none of the energy from the heated walls going into evaporation of the liquid droplets. Figure 52 shows the change in equilibrium quality with the change in actual quality for each data point. The quality change was from either Probe 1 to Probe 2 or from Probe 2 to Probe 3 consistent with the location where the data point was obtained. The diagonal line represents the terminal equilibrium condition, while the x-axis represents the frozen droplet condition. As indicated in Figure 52, the data are fairly evenly scattered between the two bounding conditions. Some of the data indicate very little heat transfer between the vapor and liquid droplets and approach the frozen droplet model, whereas other data have significant heat transfer between the vapor and liquid droplets and lie between the frozen droplet and thermodynamic equilibrium models.

The vapor generation rate was calculated for those data points with more than one vapor probe having a good reading during an experimental run. There were a total of 162 data points fitting this criterion and for which the vapor generation rate was calculated. These data were compared with the Webb^{47,48} and the modified Saha⁴⁹ vapor generation correlations, which are given in Table 3.

The Webb correlation passes through the data with a large scatter. The correlation overpredicts all of the steady-state data, as shown by the circles in Figure 53. The steady-state data are primarily lowflow, high-void data. The modified Saha correlation significantly overpredicts all of the INEL data, as noted in Figure 54.

The Webb correlation was based on only lowpressure data (0.4 MPa or less) with vapor temperature measurement available at only a single elevation, whereas the modified Saha correlation was based on data having only inferred vapor temperatures. The above comparisons should not be unexpected, and the factors influencing the nonequilibrium vapor generation are believed to be the same as those previously discussed for the wall heat transfer, i.e., quench front quality, distance from quench front, and degree of nonequilibrium.

Residual plots for the two correlations as a function of mass flux, pressure, distance from CHF, actual quality wall temperature, and vapor temperature are presented in Appendix M.

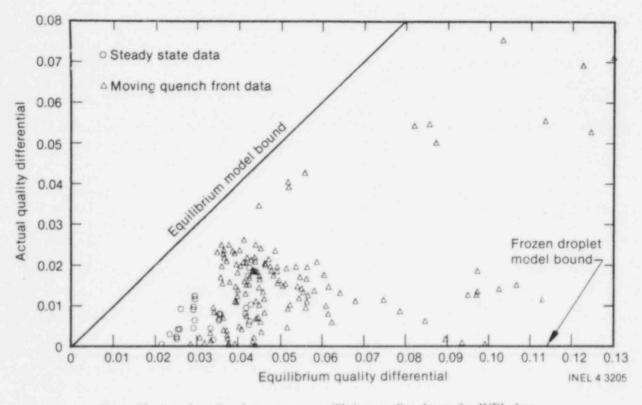


Figure 52. Actual quality change versus equilibrium quality change for INEL data.

Table 3. Vapor generation correlations

(1) Webb^{47,48}:

$$\Gamma = 1.32 \left(\frac{P}{P_c}\right)^{-1.1} \left(\frac{G \cdot XA}{\alpha_h}\right)^2 \frac{(1 - \alpha_h)^{2/3} (T_v - T_s)k_v}{\varrho_v^{\sigma h_{fg}D}}$$

(2) Modified Saha⁴⁹:

$$\Gamma = 6300 \ 1 \cdot \left(\frac{P}{P_c}\right)^2 \left[\left(\frac{G \cdot XA}{\alpha_h}\right)^2 \frac{D}{\varrho_v^{\sigma}}\right]^{1/2} \frac{k_v (1 - \alpha_h)(T_v - T_s)}{D^2 h_{fg}}$$

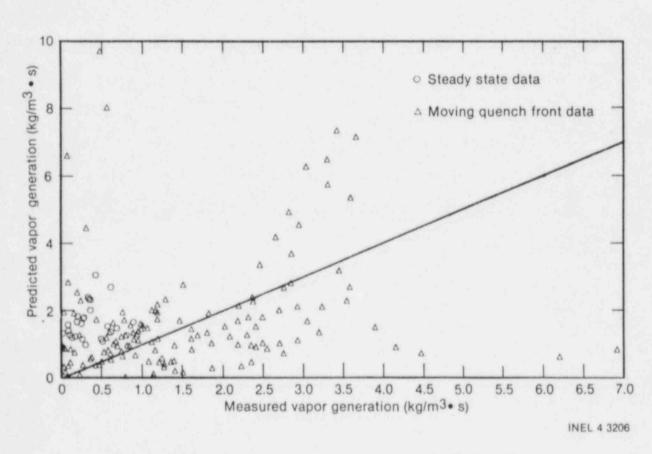


Figure 53. Predicted versus measured vapor generation rate for Webb correlation.

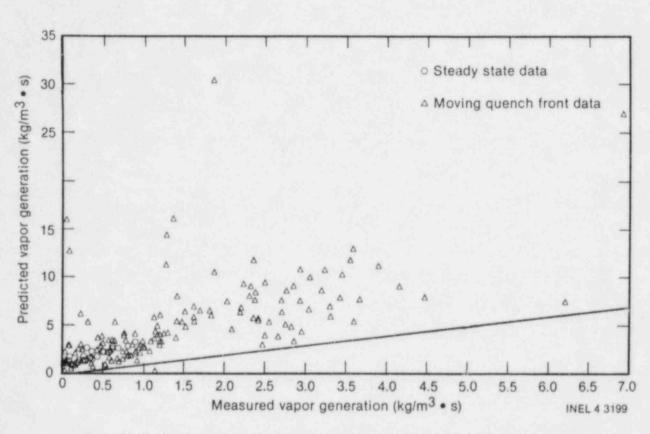


Figure 54. Predicted versus measured vapor generation rate for modified Saha correlation.

6. CONCLUSIONS

This report has presented a detailed description of the INEL forced convective post-CHF heat transfer experimental hardware and test setup, test conditions, measurements and uncertainties, and the operating procedures used to perform the experiment. In addition, discussions have been presented concerning the data analysis procedure, the resulting reduced data, repeatability of the data, comparison of these data to other correlations or models for both wall heat transfer and interfacial mass transfer, and limited correlation of the data for wall heat transfer to determine key parameters.

A total of 244 experimental runs were made, consisting of 49 steady-state and 195 quasi-steady-state runs. From the steady-state runs, 37 were analyzed, with 83 heat transfer data points obtained over a pressure range of 0.2 to 0.7 MPa, a mass flux range of 12 to 24 kg/m²·s, a heat flux range of 7.7 to 27.5 kW/m², and a test section inlet quality range of 38 to 64%. Seventy-one quasi-steady-state runs were analyzed, producing 683 heat transfer data points over a pressure range of 0.4 to 7.0 MPa, a mass flux range of 12 to 70 kg/m²·s, a heat flux range of 8 to 225 kW/m², and a test section inlet quality range of -7 to 47%. In addition, 162 vapor generation rate data points were obtained in this experiment. The uncertainties associated with the measured data have been discussed in Appendix F. Comparison of the heat transfer data base within itself, by cross-plotting both measured and calculated variables, indicates a data base with a generally even distribution of data.

The data contained in this report (a) provide a valuable addition to the forced convection post-CHF data base and (b) represent the only high pressure, nonequilibrium data available. Multiple vapor superheat probes were employed during a number of the test runs to provide information on the axial variation of vapor superheat.

Investigations to determine the existence of an equilibrium, low-quality effect on heat flux have been inconclusive. This results from the fact that, even with 766 data points, when heat flux versus equilibrium quality is plotted with all other parameters fixed, insufficient data exist to establish the trend. When current film boiling correlations are compared to the equilibrium quality, the data are underpredicted at the lower qualities, indicating that the low-quality effect may exist but not prov-

ing it. From the nonequilibrium, nonhomogeneous standpoint of the advanced codes, the effect of equilibrium quality on heat flux is not important in some post-CHF regimes. For these cases, the trend of heat flux with respect to void fraction is probably more important; the low-quality effect of the actual quality is coupled with the slip. Plots of heat flux versus actual quality, with all other parameters fixed, do not have sufficient data on each plot to reach conclusions.

Good replication of both steady-state and quasisteady-state experiments has been shown, as well as reasonable comparison to existing data. A comparison of the steady-state data with the quasisteady-state data from counterpart runs has shown good comparison, further supporting the theoretical basis for using quasi-steady-state experiments to develop steady-state correlations. Comparison of multiple-probe results for individual runs indicates a better understanding of the influence of crossexperiment variables (such as mass flux, pressure, and power) than the length effect within a single experiment.

A regression analysis to obtain a nonequilibrium wall heat transfer correlation yielded four important parameters. The most significant was the flow effect represented by the vapor Reynolds number. The effects of nonequilibrium (XE/XA), quench front quality (XCHF), and distance from the quench front (1 - DZQF/D) were all of approximately equal importance behind the Reynolds number. The Prandtl number was also included but was not as significant as any of the other parameters.

The influence of the Reynolds number has been known for years and obtaining a correlated exponent very near 0.8 adds confidence in the data. The influence of the other three major factors indicates the needs for model improvements in these areas. The thermal nonequilibrium factor shows that the heat flux is not a linear function of Twall - Tvapor alone. This is not surprising, since the wall heat transfer is a balance between a number of competing mechanisms such as wall-to-vapor and vapor-to-liquid interfacial heat transfer (often referred to as interfacial mass transfer). The interfacial heat transfer is again related to the amount of liquid available to be vaporized. This is determined by the amount of liquid carried along (entrained) by the

vapor flow and is reflected by the presence of the quality-at-CHF and distance-from-CHF terms. The quality-at-CHF term indicates a measure of the liquid at the CHF point available to be entrained. In reality, all this liquid at CHF is not swept out of the tube in a homogeneous (i.e., equal velocity) manner. The distance from quench front may well substitute then for the slip between the phases, which changes as the two-phase mixture progresses up the tube.

On the basis of the results of the regression analysis in defining key parameters, it is not surprising that current post-CHF heat transfer correlations do not predict the data very well. The best comparative results were, in fact, obtained by application of the Dougall-Rohsenow equilibrium correlation applied in its standard form, using (Twall - Tsat) as the thermal potential to predict heat flux. Thus, the error associated with the thermal potential is compensated for in the heat transfer coefficient. Application of equilibrium correlations to the nonequilibrium situations by evaluating them with vapor properties did not produce good comparisons. This is not surprising, since although the vapor properties were included in the correlations, the influence of XCHF, XE/XA, and (1 - DZQF/D), as indicated by the regression analysis, was still required. Correlations investigated in this report do not contain these factors, and therefore would not be expected to compare well with the data.

The vapor generation rate models, which are another method of representing interfacial heat transfer, were also compared to the data. The modified Saha correlation produced significantly erroneous results, whereas the Webb correlation produced results with significant scatter. Since the Saha correlation was obtained without any

measured vapor superheat data and the Webb correlation had only low pressure (0.4 MPa or less), single-elevation vapor measurement data available, this poor comparison should be expected. The factors influencing the comparison are believed to be those discussed relative to the wall heat transfer; i.e., nonequilibrium, quench front quality, and quench front location.

The comparison of the vall heat transfer and vapor generation correlations with the INEL data reported herein indicate a definite need for further post-CHF model development, including such factors as quench front conditions and elevation. These are needed for advanced codes to predict the post-CHF heat transfer, thermal nonequilibrium, and quenching phenomena. These factors are important because; (a) maximum fuel rod cladding temperatures, coupled with the pressure, determine whether fuel damage occurs and, if it occurs, the extent of damage; (b) vapor superheating influences the maximum cladding temperature, and, if fuel damage occurs, influences the transport and deposition of fission products; and (c) quenching determines when elevated cladding temperatures end and significant removal of the fuel rod energy can begin.

These comparisons also indicate the need for further experimental work. This requires the measurement of factors which will enable the characterization of the phenomena at the quench front, such as entrainment and the slip between the phases downstream of the quench front. This is necessary in order that the advanced computer codes be able to model the processes from a phenomenological viewpoint, as opposed to using quantities such as quality at the quench front and distance from the quench front.

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APPENDIX A EXPERIMENT DESCRIPTION

APPENDIX A EXPERIMENT DESCRIPTION

This section contains a description of the experiment configuration and associated hardware, as well as a detailed description of the test section. Drawings of the test section are provided in Appendix G.

A-1. Experiment Loop Configuration

The post-CHF experiments were conducted in the Blowdown Loop of the Thermal-Hydraulics Experiment Facility at the INEL. The main loop configuration is shown schematically as part of Figure A-1 and consists of a pressure vessel, a coolant pump, a warmup heater vessel, and associated valves and piping. The purpose of the main loop was to provide a high-temperature, highpressure water supply to the test section (also shown in Figure A-1) in a once-through manner. A feed and bleed system maintained the main loop in a subcooled, liquid full, constant-pressure condition. The outlet of the test section was connected to a surge tank (Figure A-1), to provide a constant back pressure during a test run. The outlet line was electrically isolated from the surge tank to prevent shorting of the test section. A regulated nitrogen supply was connected to the surge tank to provide the initial test section pressure.

The main loop was capable of supplying fluid at temperatures up to 619 K and pressures up to 16.2 MPa. The fluid was maintained in a subcooled condition so that the flow rate to the test section could be accurately measured through an orifice. The fluid was then flashed across a flow control valve (FCV-1T) downstream of the flow measuring orifice, which resulted in equilibrium fluid qualities at the inlet to the lower hot patch of up to 47% at a test section pressure of 0.4 MPa.

The initial inlet piping configuration from the main loop to the test section is shown schematically in detail in Figure A-1. To measure test section flow rate, subcooled fluid from the main loop was transmitted through one of two parallel lines. One contained a 1.016-mm-diameter orifice and the other a 2.464-mm-diameter orifice. The initial inlet piping configuration was designed for steady-state experiments, only allowing flow through the inlet piping as well as the test section and establishing the desired test conditions. Since unlimited time was available to establish a desired steady flow rate and stable test conditions prior to recording data, this configuration was satisfactory for the steady-state experiments. A photograph of the inlet pipe to the lower hot patch is shown in Figure A-2; however,

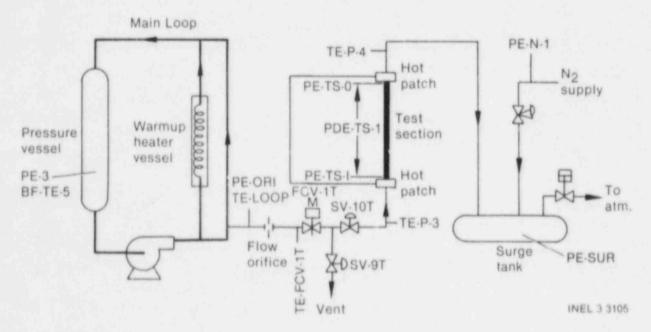


Figure A-1. Experiment loop and instrumentation diagram.

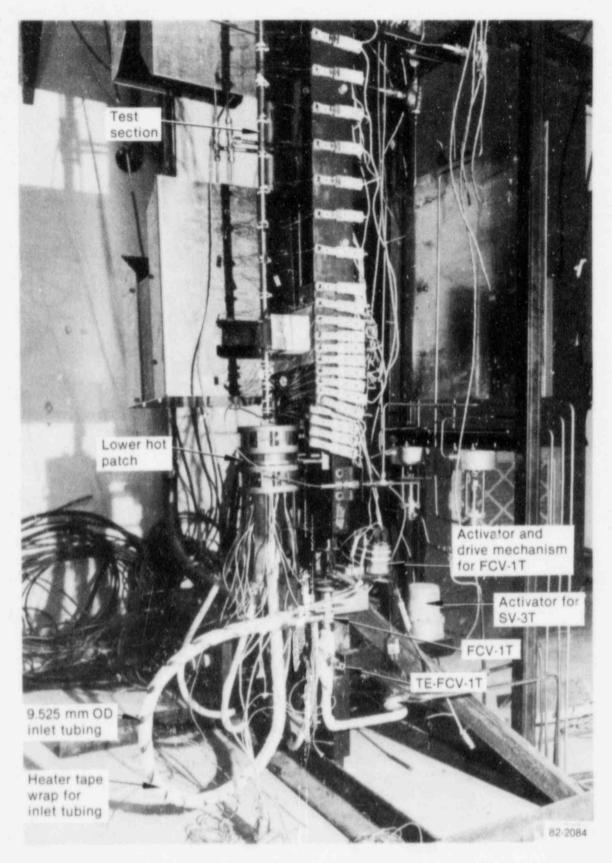


Figure A-2. Test section inlet configuration.

the vent line and vent valve (SV-9T) had not been installed at the time this photograph was taken.

The initial inlet piping configuration was not satisfactory for the quasi-steady-state experiments. The flow rate was quite sensitive to the position of the flow control valve (FCV-1T), with hysteresis in the drive mechanism adding to the problem. The delay caused by the time required to stabilize the test section are and inlet quality while the test section was quenching resulted, during many of the quasi-steady-state test runs, in propagation of the quench front up to 45 cm into the test section before the flow rate was stabilized. Therefore, following Rain 127, the inlet piping configuration was changed to that shown schematically in Figure A-3, so that flow could be circulated through the flow control valve (FCV-1T) but not through the test section.

This allowed heatup of the inlet piping and stabilization of the flow rate prior to starting the experiment. The flow was then diverted through the test section by first opening Valve SV-10T and then immediately closing Valve SV-9T, thus providing a steady flow rate to the test section during the entire experiment.

The inlet piping from the main loop to flow control Valve FCV-1T was 9.525-mm-OD (0.89-mm wall thickness) stainless steel tubing. The inlet line from Valve FCV-1T to the lower hot patch was 19.05-mm-OD (0.89-mm wall thickness) tubing approximately 1.2 m long.

A vent line at the inlet to the test section was provided, as shown in Figures A-1 and A-3. At the completion of each test run and after the flow to

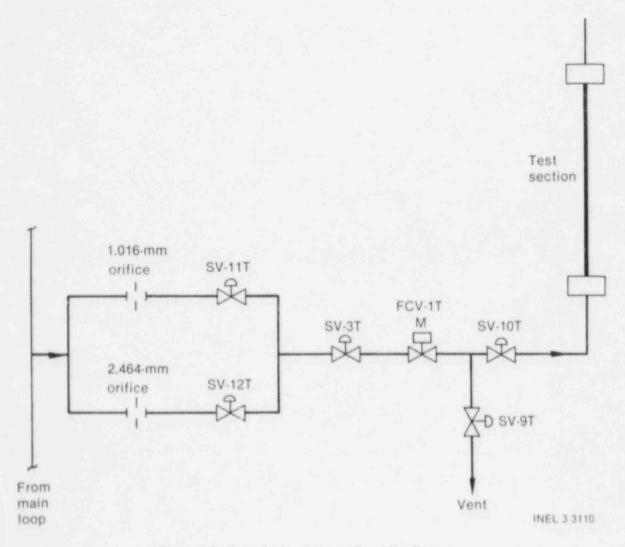


Figure A-3. Revised inlet piping configuration diagram.

the test section was stopped, Valve SV-9T was opened to allow backflow of nitrogen from the surge tank to dry out the test section.

A-2. Test Section Description

The test section, shown schematically in Figures A-1 and A-3, consisted of a vertical, Inconel-625, seamless tube with a 19.14-mm OD and a 15.7-mm ID. The initial heated length of the test section was 213.4 cm. The hot patch technique, developed by Groeneveld and Gardiner, A-1 was used in this experiment to create dry patches and prevent a quench front from entering the test section during the steady-state experiments. Drawings of the test section and hot patches are provided in Appendix G: a photograph of the machined hot patch parts is presented in Figure A-4. Cartridge heaters in the inlet (lower) hot patch, along with two band heaters around the periphery of the hot patch, were capable of delivering 7.8 kW of power. Cartridge heaters in the outlet (upper) hot patch were capable of providing 5.8 kW of power. The copper hot patches also functioned as the electrical connectors to the test section. Bus bars, to which electrical power leads were bolted, were brazed to the upper and lower hot patches. Figure A-5 shows the lower hot patch with the cartridge heaters and band heaters installed.

Construction of the test section began by cutting the Inconel tube into three pieces. Copper hot patches, 15.24 cm in diameter, were brazed to the 30.48-cm-long inlet and outlet segments of the Inconel tube, as shown in Figure A-6 for the lower hot patch, with the tube having been coated with a thin layer of nickel prior to brazing. Braze alloy Bag-8, which has a melting temperature of 1050 K, was used. Prior to the production braze, dissection of qualification samples revealed an excellent braze with essentially no voids, as shown in Figure A-7. After the brazing operation, the test tube sections were welded back together using an Astro-arc welder. Weld qualification samples were also made prior to the production weld to ensure a uniform test section wall thickness of 1.72 mm after welding.

A 75-kW dc power supply was used to provide joule heating of the test section. The power supply

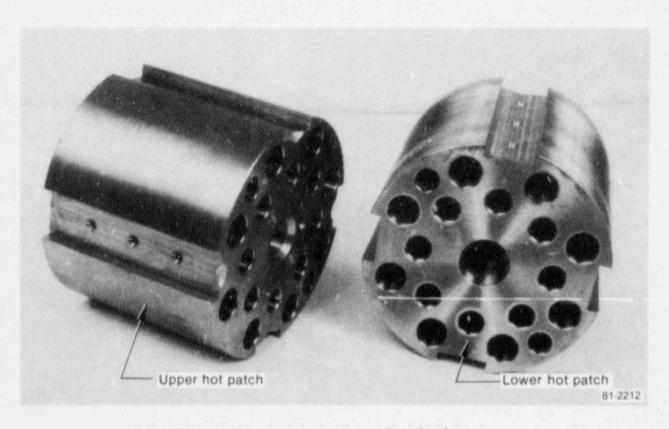


Figure A-4. Lower and upper hot patch machined parts.

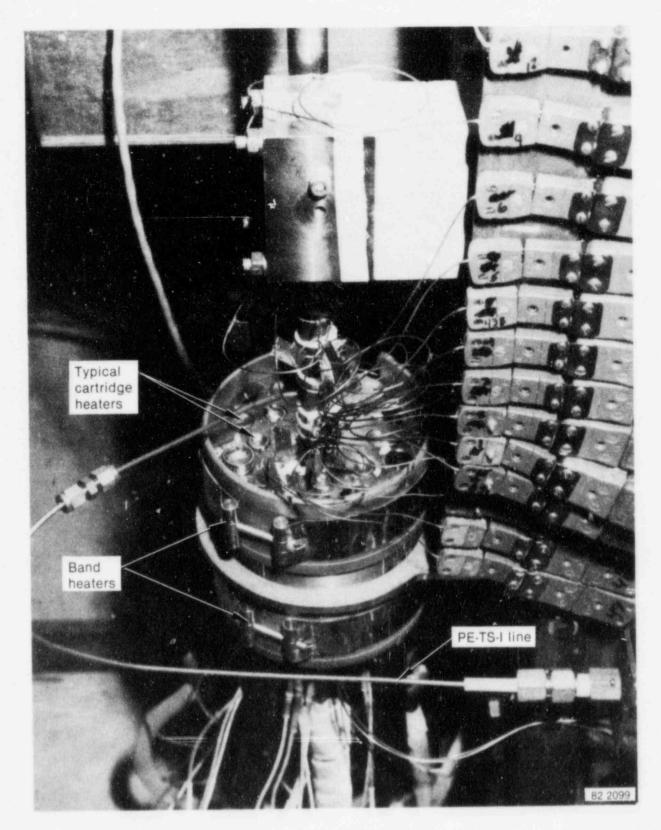


Figure A-5. Lower hot patch.

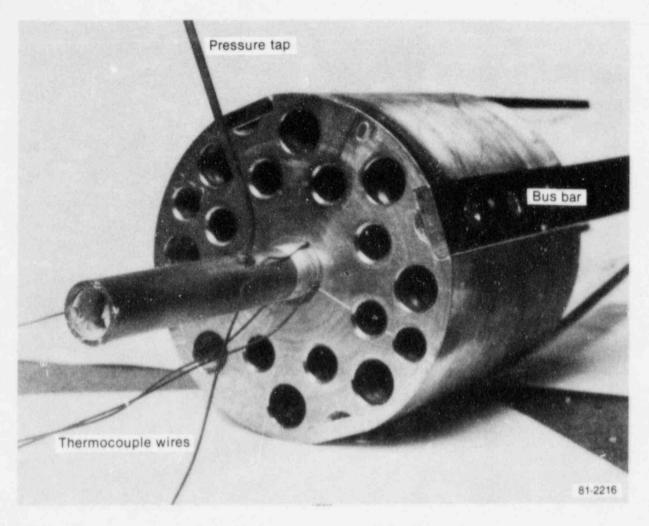


Figure A-6. Lower hot patch with bus bars.

was capable of providing 0 to 1300 A at voltages of 0 to 60 V-dc.

A vertical stand, shown in Figure A-8, was built to hold the test section. The upper hot patch was bolted to and electrically isolated from the test stand. The entire test section was suspended from the upper hot patch, and 50 lb of lead were suspended from the lower hot patch to put the test section in tension and aid in keeping it straight during heatup.

An outlet tee was connected to the Inconel test tube about 10 cm above the upper hot patch (Figure A-9) to divert the flow to the outlet pipe leading to the surge tank. The outlet tee was designed with a contour to change the flow direction 90 degrees while achieving a minimum deflection of liquid droplets back into the test section. The outlet tee was covered with heater tape and fiber-frax insulation and heated to 800 K for each test

run to minimize condensation and backflow of liquid droplets into the test section. The fiberfrax insulation had a density of 128.2 kg/m³ and a specific heat of 1130.5 W·s/kg·K. The thermal conductivity of the insulation varied with temperature, as shown below.

Thermal Conductivity (W/m·K)	Temperature (K)
0.2265	1200
0.1624	1000
0.1062	800
0.0591	600

The test section and lower and upper hot patches were covered with 10 cm of fiberfrax insulation during the experiment. Heat loss tests were performed to determine the percentage of test section and lower hot patch power lost to the atmosphere during steady-state operation.

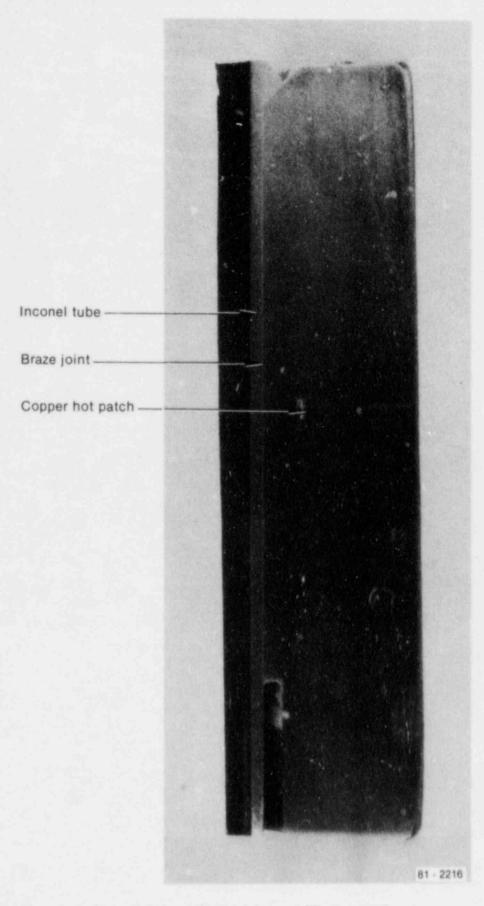


Figure A-7. Lower hot patch braze qualification sample.

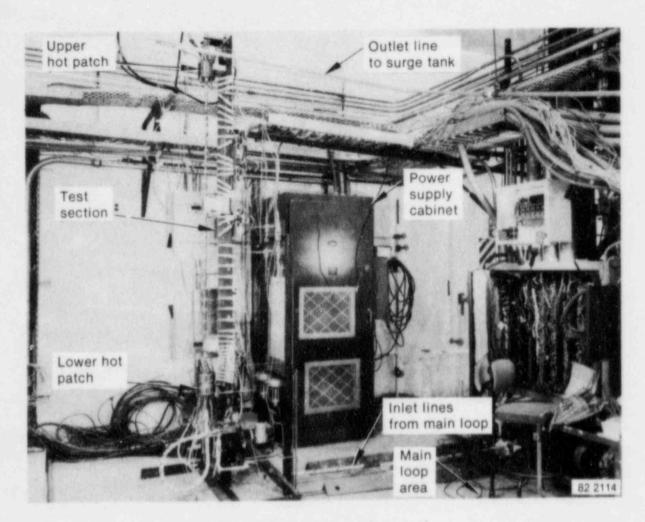


Figure A-8. Test section and test stand.

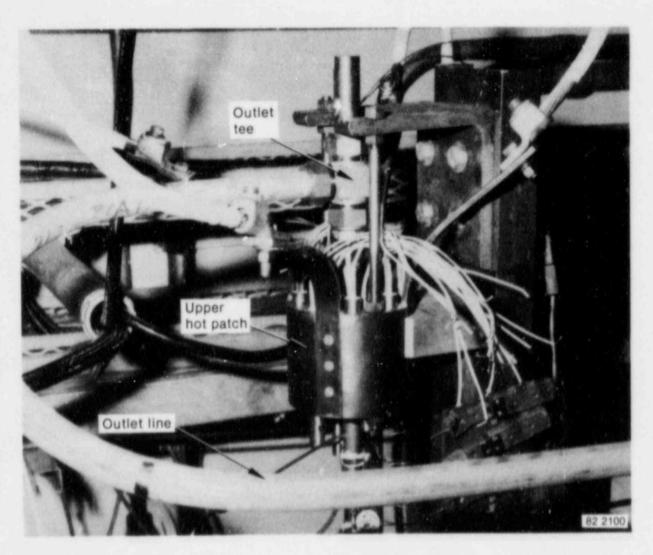


Figure A-9. Test section outlet configuration.

Following Run 189, the test section heated length was shortened from a nominal 213.4 to 132.1 cm, which allowed higher heat flux and higher flow rate experiments to be conducted without overheating the outlet of the test section. This was accomplished

by moving the power leads from the upper hot patch to a new bus bar bolted to the test section, as shown in Figure A-10. Special precautions were taken to minimize the electrical resistance between the bus bar and the test section.

Reference

A-1. A. W. Bennett et al., Heat Transfer to Steam-Water Mixtures Flowing in Uniformly Heated Tubes in Which the Critical Heat Flux Has Been Exceeded, UKAEA Research Group Report AERE-R5373, 1967.

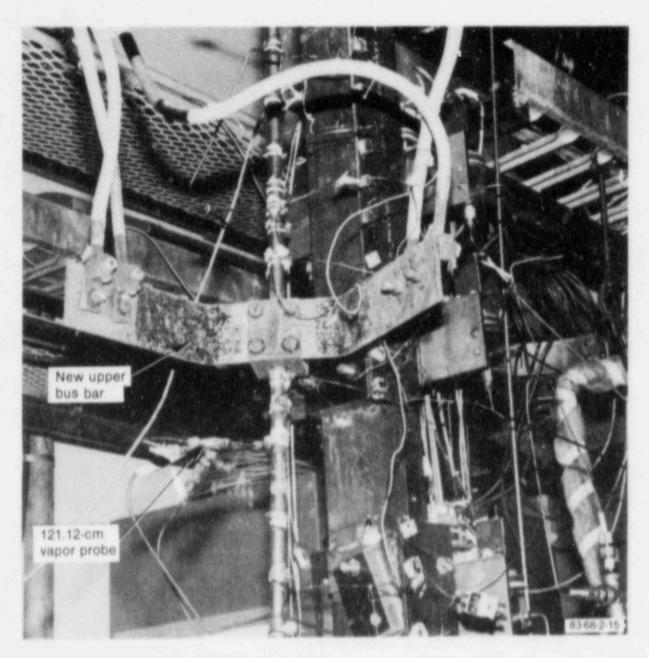


Figure A-10. Bus bar at the 132.1-cm elevation on the test section.

APPENDIX B TEST CONDITIONS

APPENDIX B TEST CONDITIONS

Originally, the post-CHF experiments were to be conducted only in the steady-state mode, with the quench front stable at the inlet to the lower hot patch. Once testing began, however, it was determined that, for mass fluxes over 25 kg/m2 s and pressures greater than 0.7 MPa, a quench front propagated into the test section. This inability to perform a complete series of steady-state experiments over a wide parametric range of test conditions was shown, as a result of a posttest dissection and metallurgical analysis, to be due to a faulty braze of the lower hot patch to the test section. The faulty braze led to the conduct of two types of experiments. A steady-state series was performed over a limited data range, and slowly moving quench front series (quasi-steady-state) was performed over a much wider data range. (Section 4 of the main text presents the justification for using this latter type of experiment.) This Appendix describes the conditions of these two types of experiments, as well as the heat loss tests.

B-1. Steady-State (Fixed Quench Front) Test Runs

Test Runs 1 through 49 were conducted as steady-state experiments at pressures of 0.2, 0.4, and 0.7 MPa; mass fluxes of 12 to 24 kg/m²·s; test section inlet equilibrium qualities of 38 to 64%; and heat fluxes of 7.7 to 27.5 kW/m². Thirty-seven of these test runs were later determined to be good, in terms of data reduction, and are reported in Appendix H.

A "data point" is defined by the measurement of the vapor temperature at a given elevation in the test section, along with the following quantities: test section pressure, and its associated saturation temperature; mass flux; test section inlet equilibrium quality and enthalpy; and the wall temperature, equilibrium quality, and convective heat flux at each wall thermocouple location. Thus, a data point was obtained corresponding to each vapor probe in the test section which was operating during a steady-state run. Eighty-five steady-state heat transfer data points were obtained.

B-2. Quasi-Steady-State (Moving Quench Front) Test Runs

Test Runs 50 through 247 were conducted as quasi-steady-state runs, with a slowly moving quench front in the test section in order to expand the ranges of the test conditions. The resulting test conditions were pressures of 0.4, 0.7, 3.5, and 7.0 MPa, mass fluxes of 15 to 100 kg/m²·s, test section inlet fluid qualities of -7 to 47%, heat fluxes of 8 to 225 kW/m², and test section wall temperatures of 650 to 1150 K. Mass fluxes greater than 100 kg/m²·s were not obtained, as originally intended, due to sustained quenching of the vapor probes.

Seventy-one quasi-steady-state test runs were chosen on the basis of covering the widest possible parametric range with unique run conditions and are reported in Appendix H.

The quasi-steady-state runs provided a large number of data points, since the local fluid quality changed at each vapor probe as the quench front slowly moved up the test section. Data points were obtained from each run by evaluating test section conditions at various points in time as the quench front moved upward. The rationale for determining the number of data points from each test run is given in Section 4 of the main text. A total of 683 heat transfer data points are reported for the quasi-steady-state portion of the experiment program.

B-3. Steady-State Heat Loss Tests

To determine the heat loss from the lower hot patch and the test section to the environment during steady-state operation, eight test runs were performed. The tests were conducted at various temperature levels for the hot patches and test section, so that heat losses could be accounted for at any temperature in the data reduction analysis for a given test run. The test section and hot patches were completely insulated for these tests. Results of the heat loss tests are given in Appendix I, and the method in which the results were incorporated into the data reduction analysis is described in Section 4 of the main text and in Appendix I. Conditions for the heat loss tests were:

Run	Lower Hot Patch Temperature (K)	Upper Hot Patch Temperature (K)	Test Section Wall Temperature (K)
9.4 A	500	500	500
9.4 B	500	500	700
9.4 C	500	500	900
9.4 D	700	700	500
9.4 E	700	700	700
9.4 F	700	700	900
9.4 G	800	800	900
9.4 H	700	700	700

APPENDIX C OPERATING PROCEDURE

APPENDIX C OPERATING PROCEDURE

This appendix describes the operating procedure used for both the steady-state and quasi-steady-state experiments.

Due to a 12-V common-mode rejection limitation on most of the thermocouple amplifiers, a few of the test section wall thermocouples, near the upper end (outlet) of the test section where the voltage was highest, experienced a common-mode voltage problem, with the readings influenced by the test section voltage. Therefore, during most steady-state and quasi-steady-state experiments, the test section voltage was given a step-change off and then on again after 2 s to calibrate the affected thermocouple readings. For most of the experiments, these voltage steps can be observed on the voltage plot. Any affected thermocouple readings were corrected during the data reduction process.

C-1. Steady-State Experiments

To initiate a steady-state film boiling experiment, the main loop was first heated to a temperature that provided fluid at the desired test section inlet quality when flashed across the inlet flow control valve (FCV-1T in Figure C-1) at a given test section pressure. The surge tank and test section were

initially pressurized with nitrogen to the desired test pressure, with no flow in the test section.

The test section was slowly heated to the specified temperature for the experiment, based on a thermocouple measurement at the 180.34-cm elevation (TE-TS-71), and the lower and upper hot patches were heated to 800 K. For a few of the steady-state experiments, the lower hot patch was heated to temperatures as high as 1025 K in an attempt to prevent a quench front from entering the test section. However, this resulted in no improvement in the ability to hold the quench front out of the test section.

Heater tape on the inlet line from the flow control valve (FCV-1T) to the lower hot patch (see Figure C-2) maintained the inlet line at the saturation temperature corresponding to the test pressure to eliminate heat loss problems. Heater tape on the inlet line from the main loop to Valve FCV-1T maintained the inlet piping and valves at the main loop fluid temperature.

When the main loop, test section, and hot patches were at the specified temperatures for a given test run, flow from the main loop was circulated through one of the flow orifice lines, the inlet flow

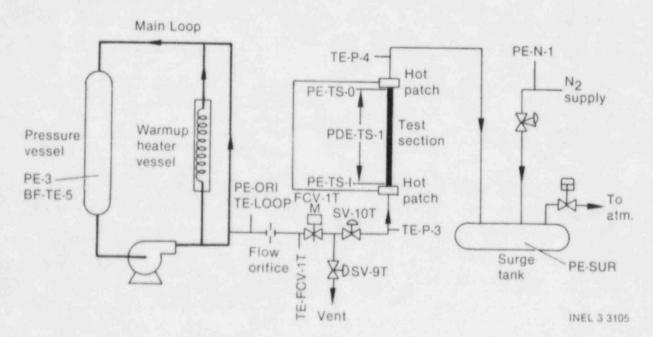


Figure C-1. Experiment loop and instrumentation diagram.

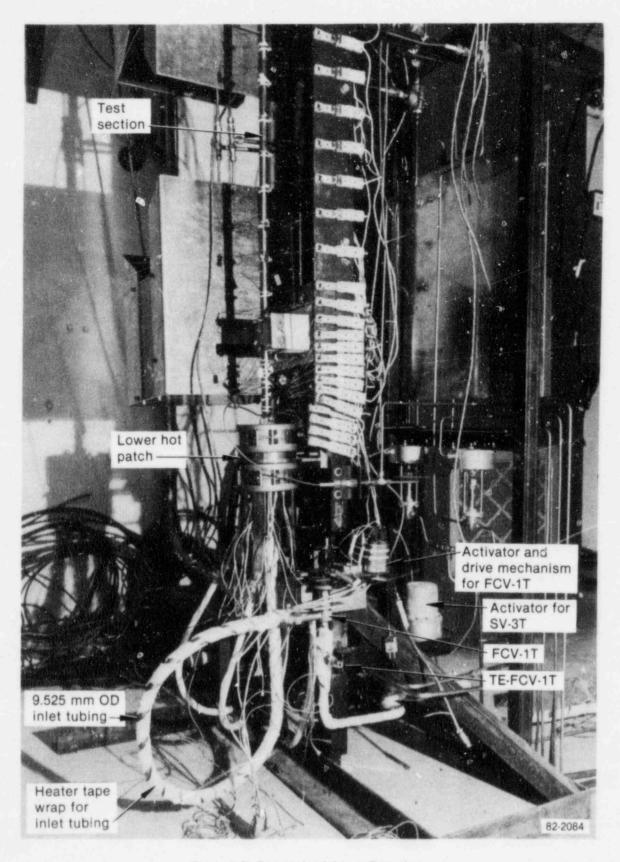


Figure C-2. Test section inlet configuration.

control valve, and the test section in a once-through manner. Flow to the test section was then adjusted through the inlet flow control valve until the desired flow rate was obtained. The test section pressure was held constant during an experiment by using a flow control valve to vent nitrogen and steam from the surge tank to atmosphere (see Figure C-1). To maintain the set temperatures, power to the hot patches and the test section was controlled automatically by an EPTAK microprocessor.

To aid in setting up the test conditions and to verify when parameters were set for a test run, all process and experimental measurements were monitored on a CRT. Also, selected test section wall thermocouples were monitored on strip charts to determine when the temperature profile on the test section had stabilized after the flow had begun. The vapor probe aspirating valves were opened and adjusted in order to provide measurement of the vapor temperature. The positions of the aspirating valves were indicated on meters on the control panel. For high-quality, low-flow inlet conditions typical of the steady-state test runs, infrequent rewets were indicated on the vapor probe thermocouples. When a rewet was indicated, particularly if it was a sustained rewet, the aspirating valves were adjusted to remove the liquid droplets from the lines so that the vapor probe would recover and measure vapor temperature again.

When all parameters were stable, data measurements were recorded for a period of several minutes, with the test section temperature being controlled at the 180.34-cm level. Data were also recorded by setting a constant voltage (power) on the test section, which resulted in less fluctuation of the test section power. However, when the parameters for temperature- and voltage-controlled portions of the experiment were averaged over a period of 60 s to obtain a data point, the values were basically the same.

The process of lowering the test section temperature and taking data was repeated until the test section inlet quenched; each temperature was counted as a test run. Following quench, a backflow of nitrogen from the surge tank was initiated and low power applied to dry out the test section. Conditions were then reset for another series of experiments.

C-2. Quasi-Steady-State Experiments

The operating procedure for the quasi-steadystate experiments was similar to that for the steadystate experiments, with the following exceptions. The lower hot patch was heated to the saturation temperature at the corresponding test section pressure for a given test run. This process eliminated (a) heat transfer between the hot patch and the incoming fluid to simplify determination of the test section inlet fluid quality and (b) heat losses from the hot patch to the environment.

Data recording began just prior to initiating flow to the test section. For Runs 50 through 127, the inlet piping configuration was the same as for the steady-state runs (see Figure C-1). When flow to the test section was initiated in this configuration, a period of up to about 120 s was required to obtain a steady flow rate, due to flow control limitations of the inlet micrometering flow control valve (FCV-1T). The result was that the quench front had generally propagated from about 15 to 45 cm into the test section before the flow rate was stabilized. This resulted in a loss of that portion of the data for rapidly varying flow rates.

Following Run 127, the inlet piping configuration was changed, as described in Section 3.2 of the main text (see Figure C-3), to allow preheating of the inlet line through Valve FCV-1T and presetting of a stable flow rate before diverting flow into the test section. This method of operation was found to be very successful, with useful data being obtained after the tube heatup was completed. This was discussed in Section 4 of the main text.

For the quasi-steady-state test runs, the amount of nonequilibrium at each vapor probe decreased as the quench front moved up the test section. The vapor probes encountered more frequent rewets and recoveries as the quench front approached, and generally quenched permanently when the quench front was within about 15 to 30 cm of the probe. When all of the vapor probes had encountered permanent quenches, the test run was terminated.

For some of the quasi-steady-state test runs, the quench front progression slowed, stopping at an elevation in the test section similar to Bennett's C-1 experiments. When this occurred, the test section was allowed to sit with the quench front at this stable location. The test section power was then

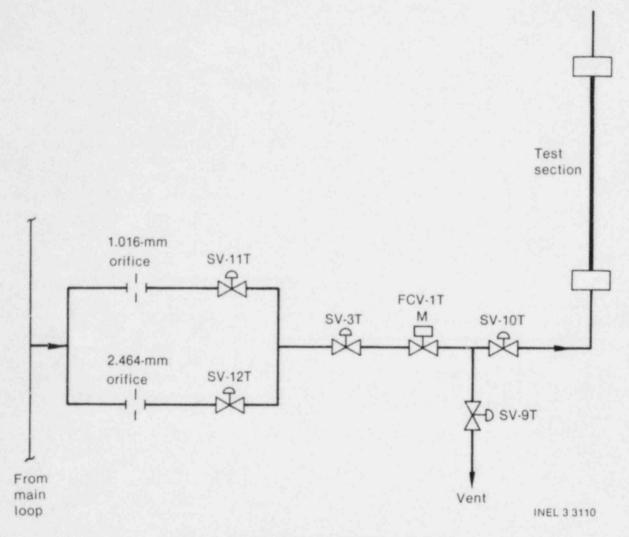


Figure C-3. Revised inlet piping configuration diagram.

lowered to allow the quench front to propagate farther up the test section. Data were recorded continuously.

C-3. Steady-State Heat Loss Tests

The steady-state heat loss tests were conducted with nitrogen at ambient pressure and with no flow

in the test section. The inlet pipe from the inlet flow control valve (FCV-1T) to the lower hot patch was heated with heater tape to 558 K. The outlet pipe above the upper hot patch was heated to 675 K. The lower and upper hot patches and the test section were heated to specified temperatures, and the system was allowed to stabilize for at least 15 min to provide a steady-state temperature distribution through all components. After steady-state conditions were obtained, data were recorded for a minimum of 120 s.

Reference

C-1. A. W. Bennett et al., Heat Transfer to Steam-Water Mixtures Flowing in Uniformly Heated Tubes in Which the Critical Heat Flux Has Been Exceeded, UKAEA Research Group Report AERE-R5373, 1967.

APPENDIX D DATA ACQUISITION SYSTEM

APPENDIX D DATA ACQUISITION SYSTEM

This appendix describes the hardware used for automatic process control of the main loop and test section parameters, as well as for the acquisition of all data.

D-1. Control System

Test loop process measurements and controls were accomplished using an EPTAK microprocessor controller. All loop operations, from startup through experiment sequencing, were programmed into the controller; and a complete experiment series was conducted with minimum operator intervention. The process measurements and ioop parameters were displayed on a CRT terminal, allowing monitoring by an operator. The keyboard allowed on-line set-point modifications at any time prior to the actual period of experiment sequencing and data acquisition.

D-2. Data Acquisition System

Experiment measurements on the test loop and test section were monitored by a central data acquisition system comprised of a 256-channel digital recording system. The digital system is equipped with a NEFF 620 acquisition system which converts analog input signals to digital format for processing by a MODCOMP II/45 computer. The analog-to-digital conversion provides 16-bit resolution at a throughput rate of 50,000 samples/s. The signal conditioning system provides the input conditioning required for Type K thermocouples, bridge transducers, and resistance temperature detectors (RTDs). Filter bandwidths of 1 Hz to 1 kHz are available. All parameters in the experiment were recorded at a rate of 50 samples/s.

Data plotting was accomplished immediately following an experiment. Standard 6- by 8-in. plots were produced in engineering units. The MODCOMP data tapes were later converted to the Common Word Addressable File (CWAF) format on the CDC computer for data reduction and processing.

APPENDIX E MEASUREMENTS

APPENDIX E MEASUREMENTS

Measurements for the experiment included both process and experimental instrumentation for the test section. To ensure the quality of the water, water chemistry measurements were also made. The process instrumentation included measurements of the main loop fluid temperature and pressure, surge tank pressure, and test section inlet line pipe temperatures for controlling heater tape on the inlet line. Experimental measurements included test section wall temperatures, hot patch temperatures, vapor temperatures in the test section, test section pressure, test section and hot patch voltage and current, and flow orifice pressure drop to determine test section flow rate. A complete list of measurements is given in Table E-1, including the instru-

ment identification number, a description of the instrument and its location, and the measurement uncertainty. Determination of the measurement uncertainties is discussed in Appendix F.

The water chemistry measurements were made whenever any additional water was added to the test loop makeup tank with the following chemical concentration required:

pH	9.0 - 10.5
Conductivity	1 - 60 μohms/cm
Oxygen	0.1 ppm maximum
Chloride	0.15 ppm maximum
Hydrazine	1.0 ppm minimum

Table E-1. Measurements list

Measurement Identification	Measurement Description and Location	Measurement Uncertainty
TE-TS-05	Test section wall temperature at 1.27-cm elevation	See Footnote a
TE-TS-1	Test section wall temperature at 2.54-cm elevation	See Footnote a
TE-TS-2	Test section wall temperature at 5.08-cm elevation	See Footnote a
TE-TS-3	Test section wall temperature at 7.62-cm elevation	See Footnote a
TE-TS-4	Test section wall temperature at 10.16-cm elevation	See Footnote a
TE-TS-438	Test section wall temperature at 11.13-cm elevation	See Footnote a
TE-TS-5	Test section wall temperature at 12.7-cm elevation	See Footnote a
TE-TS-6	Test section wall temperature at 15.24-cm elevation	See Footnote a
TE-TS-9	Test section wall temperature at 22.86-cm elevation	See Footnote a
TE-TS-12	Test section wall temperature at 30.48-cm elevation	See Footnote a
TE-TS-15	Test section wall temperature at 38.1-cm elevation	See Footnote a
TE-TS-18	Test section wall temperature at 45.72-cm elevation	See Footnote a
TE-TS-21	Test section wall temperature at 53.34-cm elevation	See Footnote a
TE-TS-24	Test section wall temperature at 60.96-cm elevation	See Footnote a

Table E-1. (continued)

Measurement Identification	Measurement Description and Location	Measurement Uncertainty
TE-TS-27	Test section wall temperature at 68.58-cm elevation	See Footnote a
TE-TS-30	Test section wall temperature at 76.2-cm elevation	See Footnote a
TE-TS-33	Test section wall temperature at 83.82-cm elevation	See Footnote a
TE-TS-36	Test section wall temperature at 91.44-cm elevation	See Footnote a
TE-TS-39	Test section wall temperature at 99.06-cm elevation	See Footnote a
TE-TS-42	Test section wall temperature at 106.68-cm elevation	See Footnote a
TE-TS-45	Test section wall temperature at 114.3-cm elevation	See Footnote a
TE-TS-47	Test section wall temperature at 119.38-cm elevation	See Footnote a
TE-TS-49	Test section wall temperature at 124.46-cm elevation	See Footnote a
TE-TS-51	Test section wall temperature at 129.54-cm elevation	See Footnote a
TE-TS-54	Test section wall temperature at 137.16-cm elevation	See Footnote a
TE-TS-57	Test section wall temperature at 144.78-cm elevation	See Footnote a
TE-TS-59	Test section wall temperature at 149.86-cm elevation	See Footnote a
TE-TS-61	Test section wall temperature at 154.94-cm elevation	See Footnote a
TE-TS-63	Test section wall temperature at 160.02-cm elevation	See Footnote a
TE-TS-66	Test section wall temperature at 167.64-cm elevation	See Footnote a
TE-TS-69	Test section wall temperature at 175.26-cm elevation	See Footnote a
TE-TS-71	Test section wall temperature at 180.34-cm elevation	See Footnote a
TE-TS-73	Test section wall temperature at 185.42-cm elevation	See Footnote a
TE-TS-75	Test section wall temperature at 190.5-cm elevation	See Footnote a
TE-TS-78	Test section wall temperature at 198.12-cm elevation	See Footnote a
TE-TS-795	Test section wall temperature at 201.93-cm elevation	See Footnote a
TE-TS-81	Test section wall temperature at 205.74-cm elevation	See Footnote a
TE-TS-835	Test section wall temperature at 212.09-cm elevation	See Footnote a

Table E-1. (continued)

Measurement Identification	Measurement Description and Location	Measurement Uncertainty
TE-LHP-1	Lower hot patch temperature adjacent to Inconel tube, 7.62 cm from upper edge of hot patch	See Footnote a
TE-LHP-2	Lower hot patch temperature adjacent to Inconel tube, 5.08 cm from upper edge of hot patch	See Footnote a
TE-LHP-3	Lower hot patch temperature adjacent to Inconel tube, 2.54 cm from upper edge of hot patch	See Footnote a
TE-LHP-4	Lower hot patch temperature adjacent to Inconel tube, 1.57 cm from upper edge of hot patch	See Footnote a
TE-LHPS-1	Lower hot patch temperature 1.905 cm radially and 2.54 cm depth from lower edge of hot patch	See Footnote a
TE-LHPS-2	Lower hot patch temperature 2.54 cm radially and 3.81 cm depth from lower edge of hot patch	See Footnote a
TE-UHPS	Upper hot patch temperature 1.905 cm radially and 3.81 cm depth from upper edge of hot patch	See Footnote a
TE-LHP-000	Temperature in ceramic plug adjacent to Inconel tube at lower end of lower hot patch, at a depth of 2.54 cm in the ceramic plug	See Footnote a
TE-LHP-050	Temperature in ceramic plug adjacent to Inconel tube at lower end of lower hot patch, at a depth of 2.413 cm in the ceramic plug	See Footnote a
TE-LHP-100	Temperature in ceramic plug adjacent to Inconel tube at lower end of lower hot patch, at a depth of 2.286 cm in the ceramic plug	See Footnote a
TE-FCV-IT	Fluid temperature 10 cm upstream of test section inlet flow control Valve FCV-1T	See Footnote a
TE-BUS	Temperature of bus bar on lower hot patch, 7.62 cm from TE-BUS-A	See Footnote a
TE-BUS-A	Temperature of bus bar near lower hot patch	See Footnote a
TE-LOOP	Fluid temperature upstream of flow orifices	See Footnote a
TE-V-1	Vapor temperature at 121.02-cm elevation in the test section	See Footnote a
TE-V-2	Vapor temperature at 152.4-cm elevation in the test section	See Footnote a

Table E-1. (continued)

Measurement Identification	Measurement Description and Location	Measurement Uncertainty
TE-V-3	Vapor temperature at 182.88-cm elevation in the test section	See Footnote a
TE-P-1	Inlet pipe temperature just upstream of inlet flow control Valve FCV-1T	See Footnote a
TE-P-2	Temperature of body of inlet Valve FCV-1T on upstream side	See Footnote a
TE-P-3	Pipe temperature between Valve FCV-1T and lower hot patch	See Footnote a
TE-P-4	Test section outlet pipe temperature about 45 cm downstream of outlet tee	See Footnote a
TE-P-5	Pipe temperature of 1.016-mm flow orifice inlet line	See Footnote a
TE-P-6	Pipe temperature of 2.464-mm flow orifice inlet line	See Footnote a
BF-TE-5	Pressure vessel fluid temperature in main loop	$[(1.1)^2 + (0.0031 \text{ T})^2]^{1/2}$ or <2.2 K ^b
PE-3	Pressure vessel pressure in main loop	$[(0.655)^2 + (0.001 \text{ P})^2]^{1/2}$ or < 0.0677 MPa ^c
PE-TS-I	Test section inlet pressure at 3.81-cm elevation	$[(0.00343)^2 + (0.001 P)^2]^{1/2}$ or < 0.00358 MPa
PE-TS-0	Test section outlet pressure at 209.55-cm elevation	$[(0.00348)^2 + (0.001 \text{ P})^2]^{1/2}$ or < 0.00363 MPa
PE-SUR	Surge tank pressure	$[(0.0631)^2 + (0.001 \text{ P})^2]^{1/2}$ or < 0.0654 MPa
PE-ORI	Absolute pressure upstream of flow orifices	$[(0.0623)^2 + (0.001 \text{ P})^2]^{1/2}$ or < 0.0647 MPa
PE-N-1	Nitrogen supply tank pressure	$[(0.0619)^2 + (0.001 P)^2]^{1/2}$ or < 0.0643 MPa
PDE-TS-1	Test section pressure drop	$[(0.498)^2 + (0.042 \Delta P)^2]^{1/2}^d$ or < 1.16 kPa ^e
PDE-0-1	Pressure drop across 2.464-mm flow orifice (12.45 kPa transducer)	$[(0.238)^2 + (0.042 \Delta P)^2]^{1/2}$ or <0.573 kPa

Table E-1. (continued)

Measurement Identification	Measurement Description and Location	Measurement Uncertainty
PDE-0-2	Pressure drop across 2.464-mm flow orifice (124.5 kPa transducer)	$[(2.39)^2 + (0.042 \Delta P)^2]^{1/2}$ or <5.75 kPa
PDE-0-3	Pressure drop across 2.464-mm flow orifice (689.5 kPa transducer)	$[(13.2)^2 + (0.042 \Delta P)^2]^{1/2}$ or <31.8 kPa
PDE-0-4	Pressure drop across 1.016-mm flow orifice (12.45 kPa transducer	$[(0.24)^2 + (0.042 \Delta P)^2]^{1/2}$ or <0.573 kPa
PDE-0-5	Pressure drop across 1.016-mm flow orifice (124.5 kPa transducer)	$[(2.74)^2 + (0.042 \Delta P)^2]^{1/2}$ or < 5.78 kPa
PDE-0-6	Pressure drop across 1.016-mm flow orifice (344.7 kPa transducer)	$[(6.61)^2 + (0.042 \Delta P)^2]^{1/2}$ or <15.9 kPa
TS-VOLT	Test section voltage drop across bus bars on lower and upper hot patches	0.0787 V
LHP-VOLTS	Voltage on cartridge heaters in lower hot patch	0.25 V
UHP-VOLTS	Voltage on cartridge heaters in upper hot patch	0.143 V
TS-AMPS	Test section current	1.69 A
LHP-AMPS	Current in lower hot patch cartridge heaters	0.585 A
UHP-AMPS	Current in upper hot patch cartridge heaters	0.585 A

a. 2 K at 300 K, 3.3 K at 625 K, 4.6 K at 1075 K, and 5.4 K at 1300 K.

- b. Temperature (T) is in K.
- c. Pressure (P) is in MPa.
- d. Differential pressure (ΔP) is in kPa.
- e. See Section 2.3 of this Appendix.

The remainder of this appendix presents a detailed description of the process and experimental instruments used, including installation procedures and locations of the instruments. Process measurement locations are shown in Figures E-1 and E-2.

E-1. Temperature

This section describes the various process and experimental temperature measuring instruments and their installation. These include temperature

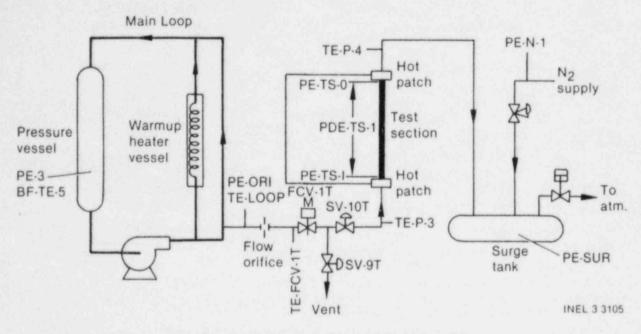


Figure E-1. Experiment loop and instrumentation diagram.

measurements of the test section wall, the superheated vapor in the test section, the hot patches, the inlet piping, and the fluid in the main loop and inlet pipe.

E-1.1 Test Section Wall Temperature. The test section wall temperature was measured at 38 different axial elevations over its heated length between the lower and upper hot patches. The measurement locations are shown in Figure E-2. Inconel sheathed, Type-K, ungrounded thermocouples, with an outer diameter of 1.016 mm, were used. The tip of each thermocouple was slightly flattened and laser welded to the outer surface of the test section with a very small bead. The small bead provided good thermal contact with the test section and minimized local variations in test section electrical resistance and heat flux. Each thermocouple was wrapped 180 degrees around the test section circumference to minimize conduction heat losses from the thermocouple. This wrap around the test section was done at a slight vertical angle, to allow placing a clamp over the thermocouple for mechanical support so that the laser weld would not break. To avoid electrical current flow axially through the thermocouple or clamp, a thin layer of fiberfrax insulation was installed between the thermocouple and the test section; and a thicker layer was installed between the clamp and the test section. To prevent shorting of the test section, each thermocouple sheath was electrically isolated. A photograph of an installed test section wall thermocouple is shown in Figure E-3.

Installation of replacements of failed thermocouples was the same as described above, except that the junctions were clamped tightly against the test section wall rather than being laser welded. This had no noticeable effect on the measured wall temperatures. A description of the replaced thermocouples is given in Appendix F.

E-1.2 Vapor Temperature. Vapor superheat measurements were made at the 121.92-cm (TE-V-1), 152.4-cm (TE-V-2), and 182.88-cm (TE-V-3) elevations in the test section, as shown in Figure E-2. A double-aspirated steam probe, as developed by Nijhawan, E-1, E-2 was used. The measurement concept, shown conceptually in Figure E-4, utilized (a) inertial separation of liquid droplets from the sampled vapor, (b) differential aspiration of the separated phases to minimize probe quench by liquid, and (c) multiple radiation shielding of the thermocouple junction to minimize radiation heat transfer from the neighboring hot walls. The probe assembly was inserted into the twophase flow in such a way that the sampled mixture had to traverse through a 180-degree change of direction and then a second 90-degree change of direction before passing over the thermocouple junction. These directional changes provided the inertial shielding for separation of liquid drops from the vapor. Due to the small linear dimensions involved, residence time of the sample vapor and liquid mixture within the probe was minimal, thus preventing any significant equilibration between the phase temperatures before the vapor passed over

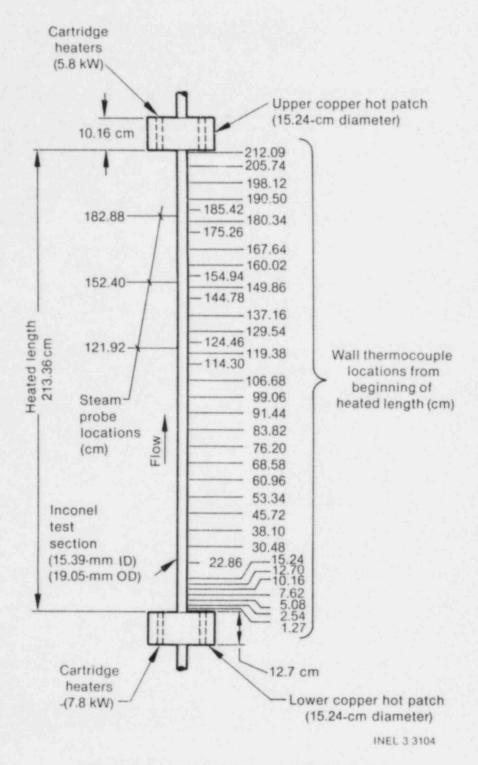


Figure E-2. Test section geometry and instrument locations.

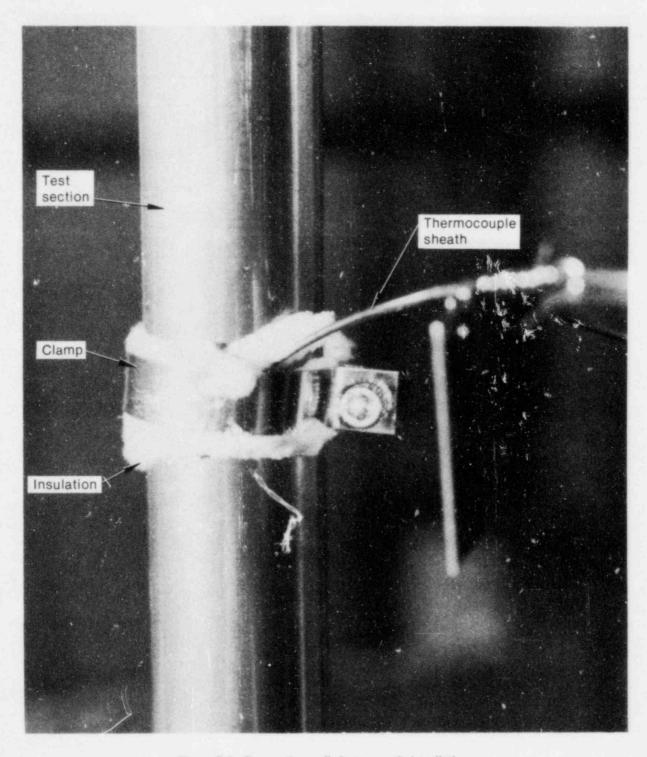


Figure E-3. Test section wall thermocouple installation.

the thermocouple junction. Liquid drops which were drawn into the probe were collected and drawn off, to the extent possible, by aspiration through the annular space, ideally producing liquid-free vapor to be aspirated through the inner tube and past the sensing thermocouple junction. Aspiration of the inner tube also provided a means of removing those liquid drops that had not been prevented from entering the tube. The double tube arrangement also provided radiation shielding. For this design, the error caused by radiation from hot walls at operating conditions was calculated to be less than 2 K.

To assemble the probe, the outer tube was inserted into a hole in the test section wall and laser welded in place, as shown in Figures E-4 and E-5. The inner tube was then placed inside the outer tube, and the assembly and vent lines were connected with Swagelok fittings, as shown in Fig-

ure E-5. A Type-K, 0.25-mm-diameter microthermocouple was within the inner of the two concentric tubes, as shown in Figure E-4. Access holes to the outer and inner tubes were drilled at displacements of 90 degrees, as indicated in Figure E-4, and one end of each tube was closed. The outer diameters of the tubes were 3.175 and 1.588 mm, with a wall thickness of 0.381 mm. The thermocouple wire extended from the inner tube to its connector through a brazed joint.

Remote, motor-controlled micrometering valves were used to provide fine control of the differential aspiration between the inner tube and outer annulus. A photograph of the valve configuration is shown in Figure E-6. A potentiometer was used to monitor the number of turns each valve was open, with the signal being displayed on a meter in the control room. The downstream side of the micrometering valves was vented to atmosphere,

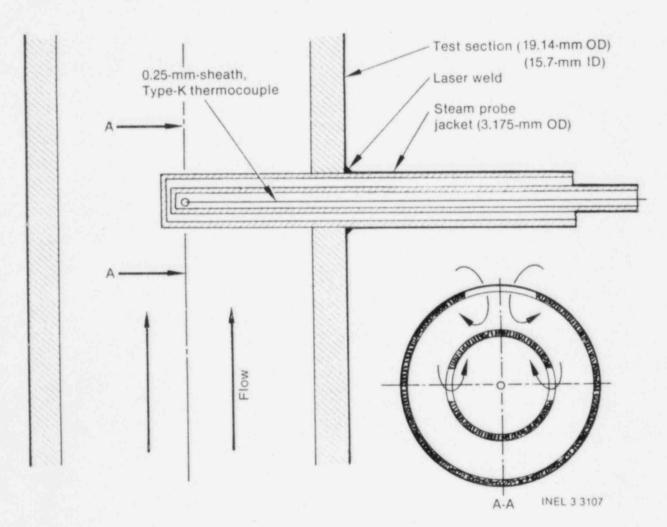


Figure E-4. Vapor probe design.

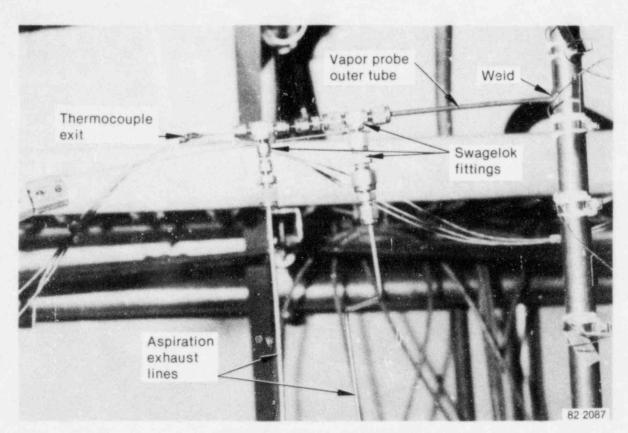


Figure E-5. Vapor probe installation.

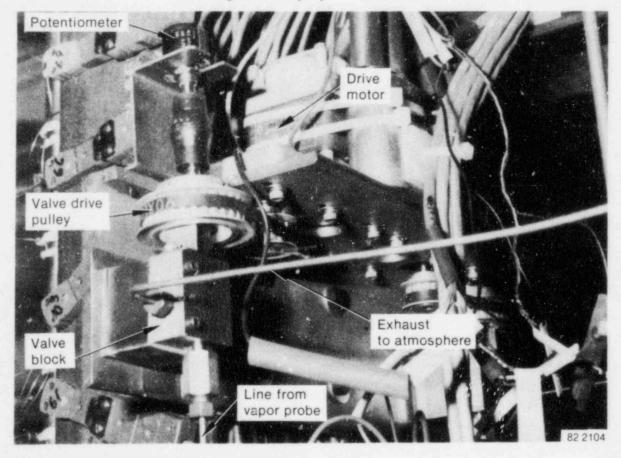


Figure E-6. Aspiration line valves.

resulting in critical flow through the valves for most of the test runs. For the high pressure experiments at 3.5 and 7 MPa, the micrometering valves were just "cracked" open to keep the flow rate out the vapor probes very small, compared to the flow rate in the test section.

Due to the high fluid qualities and resulting high void fractions typical of these test runs, very few rewets were observed on any of the three vapor probes during the steady-state runs. Figure E-7 shows a typical rewet and recovery of the first probe (TE-V-1) during Test Run 20. Figure E-8 shows an example of a sustained quench, followed by recovery, of the first probe (TE-V-1) during Run 19. The recoveries were obtained by varying the flow rates in the two aspiration lines to remove liquid droplets at the thermocouple junction.

During the quasi-steady-state (slowly moving quench front) test runs, frequent quenches and recoveries of the vapor probes were noted. This was due to the lower quality, higher flow rate conditions, as well as to the quench front in the test section approaching the vapor probes. The vapor probes tended to quench and remain quenched at mass fluxes above about 100 kg/m²·s, possibly due

to increased liquid droplet entrainment. A typical vapor temperature measurement for a quasi-steady-state test run is shown in Figure E-9. The decreasing vapor temperature and more frequent quenches with time are directly related to the distance of the probe from the moving quench front.

When the heated length of the test section was changed to 132.1 cm following Run 189 (see Section 3.2 of the main text), only the first vapor probe at the 121.92-cm elevation was used, since the other two probes were now above the heated length of the test section. The upper two vapor probe aspiration lines were plugged for Runs 190 through 247.

To reduce heat losses from the test section and prevent liquid from condensing and collecting in the aspiration lines, the vapor probes and aspiration lines to the micrometering valves were heavily insulated with fiberfrax insulation. See Appendix I for further discussion of heat losses at the vapor probe locations.

E-1.3 Hot Patches. Temperatures of the lower and upper hot patches were measured at various locations. Two Type-K thermocouples (TE-UHP-S)

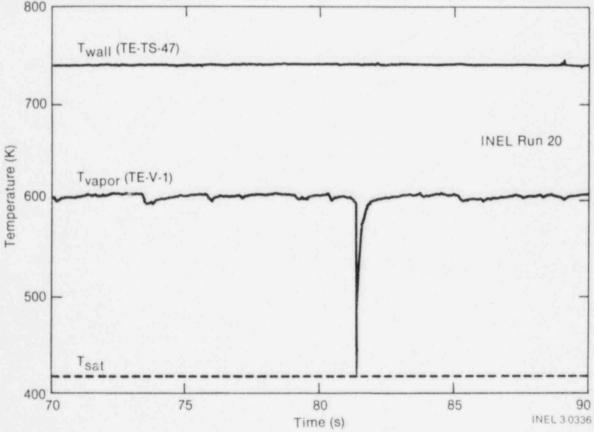


Figure E-7. Vapor probe measurement for Test Run 20.

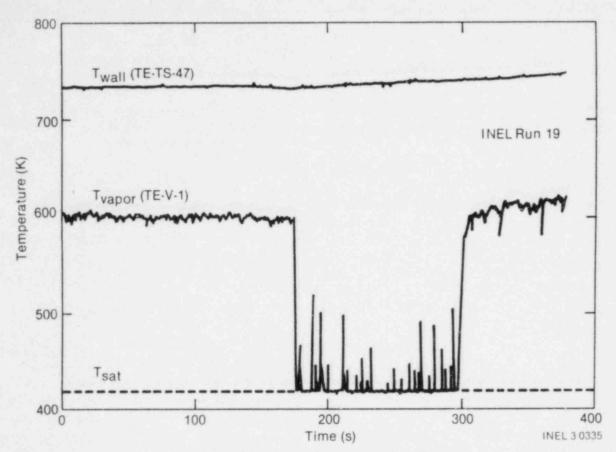


Figure E-8. Vapor probe measurement for Test Run 19.

were embedded at the same location in the upper hot patch, as shown in Figure E-10 (one for redundancy). The signal was sent to the microprocessor for control of the hot patch temperature. The thermocouples were located at a depth of 3.81 cm (from the upper surface) into the hot patch and 1.905 cm radially from the center of the hot patch (0.953 cm from the outer diameter of the test section Inconel tube in the hot patch).

Similar dual thermocouples were embedded at two different locations in the lower hot patch (TE-LHPS-1 and TE-LHPS-2), as shown in Figure E-11. They were used to measure the radial temperature gradient in the lower hot patch, as well as being available for process control. The locations of these thermocouples were (a) at a depth of 2.54 cm up from the lower edge of the lower hot patch and 1.905 cm radially from the center of the hot patch (TE-LHPS-1) and (b) at a depth of 3.81 cm up from the lower edge of the lower hot patch and 2.54 cm radially from the center of the hot patch (TE-LHPS-2). These thermocouple locations were separated 127.5 degrees azimuthally.

Also, four Inconel-sheathed Type-K thermocouples, with 1.016-mm OD, were installed in individual slots in the lower hot patch adjacent to the Inconel tube. The purpose of these thermocouples was to measure, as closely as possible, the temperature of the Inconel tube at various elevations, to verify that a quench front was not in the lower hot patch or to determine its approximate position if it were. These four thermocouples were located 90 degrees apart azimuthally and were brazed into position at the same time the lower hot patch was brazed to the Inconel tube. The axial elevations of these thermocouples, measuring down from the test section inlet, were (see Figure E-12) 1.27 cm (TE-LHP-4), 2.54 cm (TE-LHP-3), 5.08 cm (TE-LHP-2), and 7.62 cm (TE-LHP-1). The signal from TE-LHP-3 was sent to the microprocessor for control of the lower hot patch temperature. Due to the existence of a poor braze between the copper hot patch and the Inconel tube, the four thermocouples in the slots were in much better contact with the copper than with the Inconel tube and, therefore, basically measured the temperature of the copper hot patch and did not give an accurate indication of the location of a quench front in the lower hot patch, if there had been one.

E-1.4 Inlet and Outlet Piping. To eliminate the effect of heat losses on the fluid, the incoming fluid was maintained at a constant temperature by installing several different segments of heater tape on the

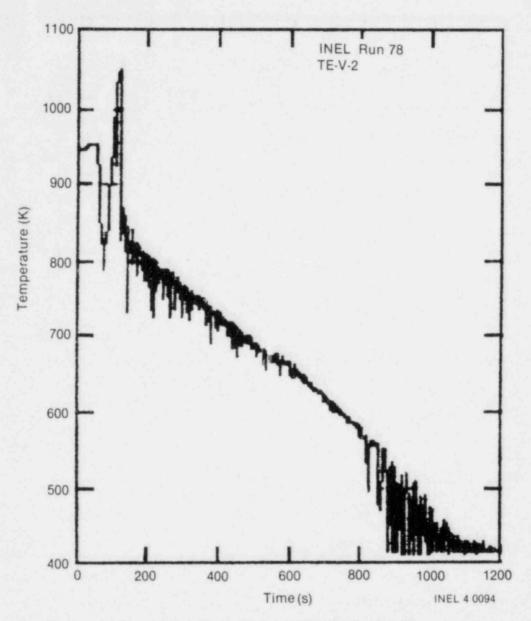


Figure E-9. Vapor probe measurement for Test Run 78.

inlet piping from the main loop to the lower hot patch. Several thermocouples were also installed on the inlet piping to aid in controlling the power on the independent segments of heater tape. The locations of these thermocouples are shown schematically in Figure E-2. Thermocouple TE-P-1 was located about 10 cm upstream of flow control Valve FCV-1T. Thermocouple TE-P-2 was mounted directly on the upstream side of the body of Valve FCV-1T. Thermocouples TE-P-5 and TE-P-6 were located on the two parallel inlet lines from the main loop containing the two different flow orifices. The heater tape corresponding to each of these inlet pipe thermocouples (TE-P-1, -2, -5, and -6) was set to maintain the inlet piping at the desired temperature

of the fluid entering Valve FCV-1T for a given test run. Thermocouple TE-P-3 was located on the inlet pipe between Valve FCV-1T and the lower hot patch. To eliminate heat transfer between the fluid and the pipe from the flow control valve to the lower hot patch, the heater tape on this pipe was set to maintain the pipe at the saturation temperature corresponding to the test section pressure. All of the inlet piping and valves were heavily covered with fiberfrax insulation.

Thermocouple TE-P-4 was located on the test section outlet pipe about 0.3 m downstream of the outlet tee above the upper hot patch. This thermocouple aided the control of the heater tape located

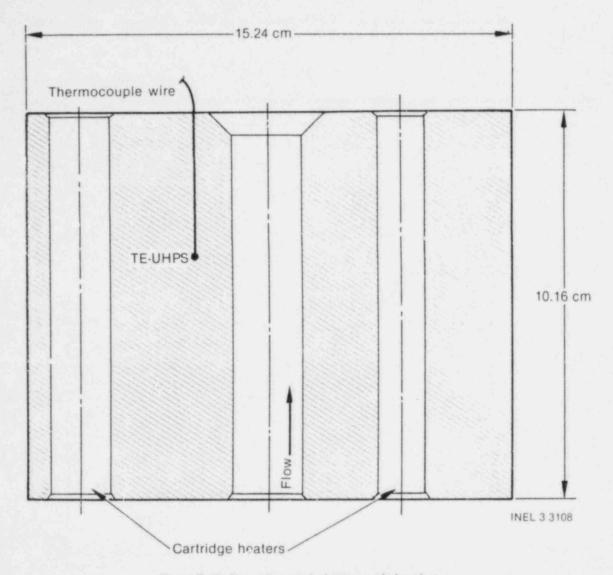


Figure E-10. Upper hot patch thermocouple locations.

on the outlet piping and tee. In an effort to prevent condensation from forming and liquid from draining back into the test section, the set point on the controller for TE-P-4 was 800 K for all test runs.

E-1.5 Fluid Temperatures. A resistance thermometer (BF-TE-5 in Figure E-1) measured the main loop fluid temperature in the pressure vessel. This was done in order to prevent overheating of the main loop and to set the desired loop temperature for a given test run.

A grounded Type-K thermocouple (TE-LOOP in Figure E-1) measured the fluid temperature downstream of the tee, where main loop fluid was diverted to the test section, and just upstream of the tee to the two parallel inlet lines containing the flow orifices. This fluid temperature measurement

was used to determine the density of the subcooled fluid for calculating test section flow rate.

To accurately measure the subcooled inlet fluid temperature just prior to flashing across the flow control valve, an exposed-junction Type-K thermocouple (TE-FCV-1T in Figure E-1) was located about 10 cm upstream of flow control Valve FCV-1T. This measurement was used to determine the enthalpy of the fluid to calculate test section inlet quality.

E-2. Pressure

E-2.1 Main Loop. The absolute pressure in the main loop (PE-3 in Figure E-1) was used for process control to prevent overpressurization and to ensure

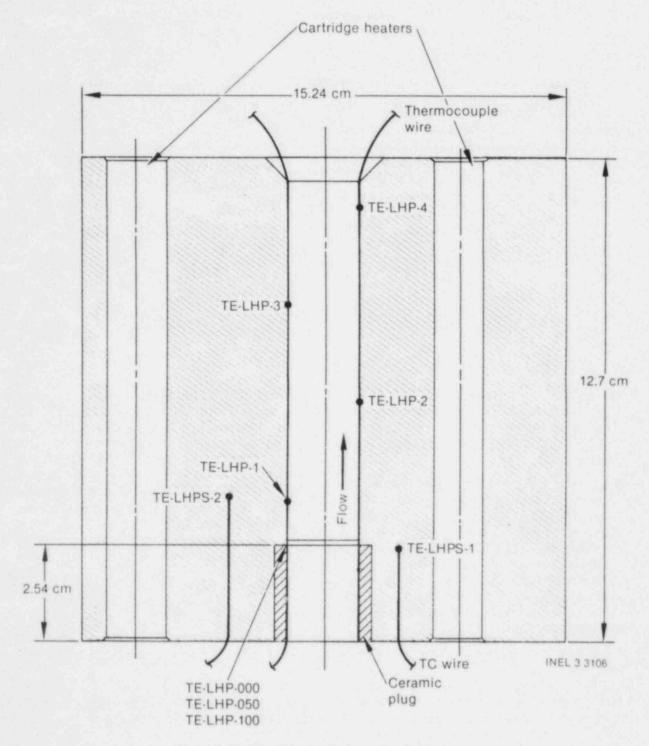


Figure E-11. Lower hot patch thermocouple locations.

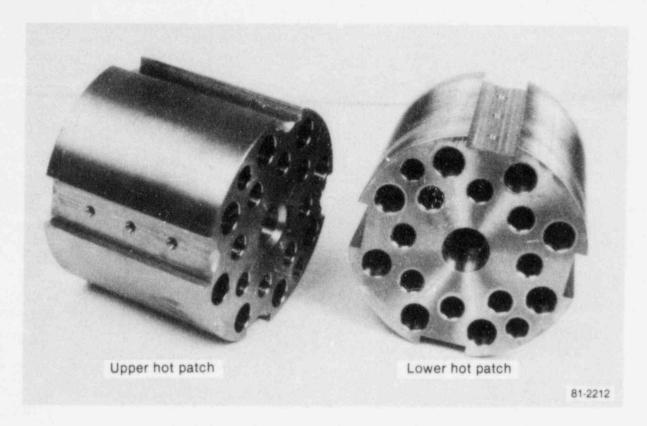


Figure E-12. Lower and upper hot patch machined parts.

that the fluid was subcooled in the main loop and inlet pipe, up to flow control Valve FCV-1T. Absolute pressure was measured at the flow orifices (PE-ORI in Figure E-1) in order to determine fluid density.

E-2.2 Test Section. Absolute pressure was measured at the inlet (PE-TS-I in Figure E-1) and outlet (PE-TS-O) of the test section. The pressure taps (3.175-mm-diameter tubing) were laser welded onto the heated length of the test section, 3.81 cm from both the lower and upper hot patches (see Figures E-13 and E-14), and were electrically isolated to prevent shorting the test section. Absolute pressure was also measured at the surge tank (PE-SUR in Figure E-1).

E-2.3 Test Section Pressure Drop. The pressure drop across the heated length of the test section (PDE-TS-1 in Figure E-1) was measured, using the same pressure taps as for the absolute pressure measurements. However, little confidence should be placed in this measurement due to inconsistent filling of the pressure lines with water.

E-3. Test Section Flow Rate

The flow rate in the test section was determined by measuring the subcooled fluid pressure drop across an orifice upstream of the test section inlet flow control valve (FCV-1T). Two parallel inlet lines (see Figures E-2 and E-15) were used, one with a 1.016-mm-diameter orifice and the other with a 2.464-mm-diameter orifice. Flow was directed through either line, depending on the desired flow rate for a given test run. Each orifice had three transducers with different differential pressure ranges, which provided for a large range of flow rate measurements. The ranges of the transducers are listed below.

Sn	nall Orifice	La	arge Orifice
12.45	kPa (PDE-0-4)	12.45	kPa (PDE-0-1)
124.5	kPa (PDE-0-5)	124.5	kPa (PDE-0-2)
344.7	kPa (PDE-0-6)	689.5	kPa (PDE-0-3)

Each orifice was calibrated over a large range of Reynolds numbers. Based on curve fits to the calibration data, the following algorithm was used to calculate flow rate:

$$\dot{m} = COEF \sqrt{\varrho \Delta P}$$
 (E-1)

where m is the flow rate (kg/s), ΔP is the orifice pressure drop (kPa), and ϱ is the calculated fluid density (kg/m³) using fluid temperature TE-LOOP

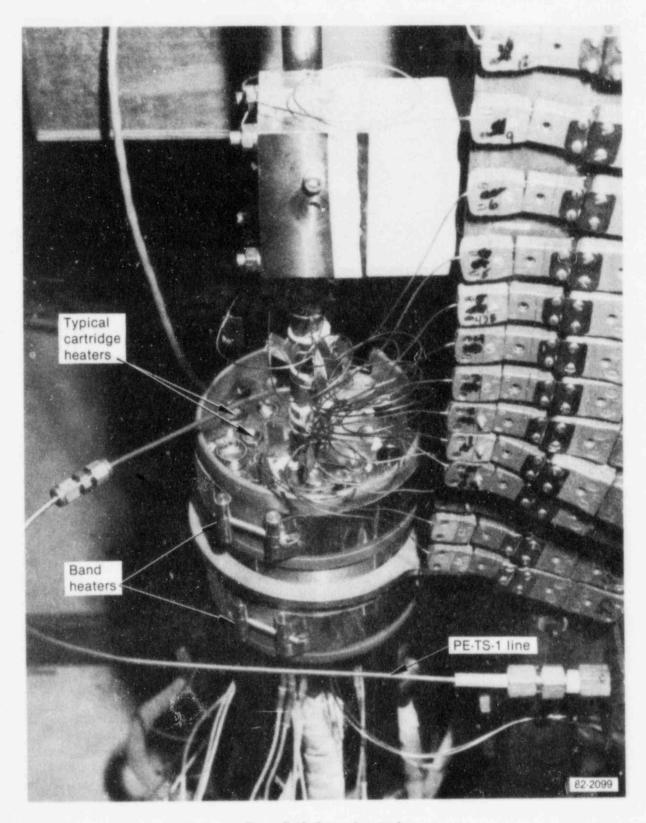


Figure E-13. Lower hot patch.

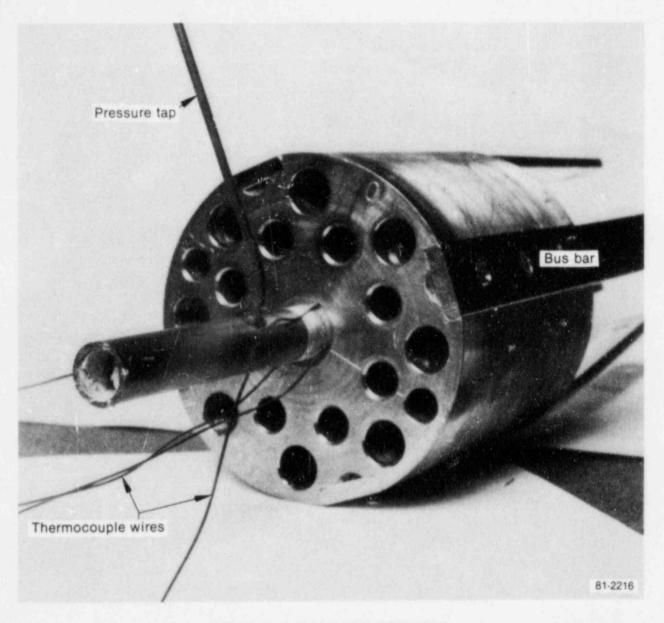


Figure E-14. Lower hot patch with bus bars.

and pressure PE-ORI. The calibration coefficients, COEF, for the different pressure transducers were:

Measurement	Coefficient, COEF
PDE-0-1	1.453 x 10 ⁻⁴
PDE-0-2	1.441 x 10 ⁻⁴
PDE-0-3	1.419 x 10 ⁻⁴
PDE-0-4	2.400 x 10 ⁻⁵
PDE-0-5	2.436 x 10 ⁻⁵
PDE-0-6	2.360 x 10 ⁻⁵

E-4. Test Section Voltage

A voltage divider was used to measure test section voltage across the bus bars. The hot voltage lead was attached to the bus bars brazed to the upper hot patch. The voltage divider leads were attached to a clamp holding the cable leads and bolted to the lower and upper hot patch bus bars. The electrical resistance measurement from the clamp to the bus bar was 0.001 ohms. This can be compared to the resistance across the heated length of the test section of 0.028 to 0.031 ohms, depending on temperature. In the data reduction program, the measured voltage drop was corrected for this clampto-bus bar resistance in order to obtain the voltage drop across the heated length of the test section.

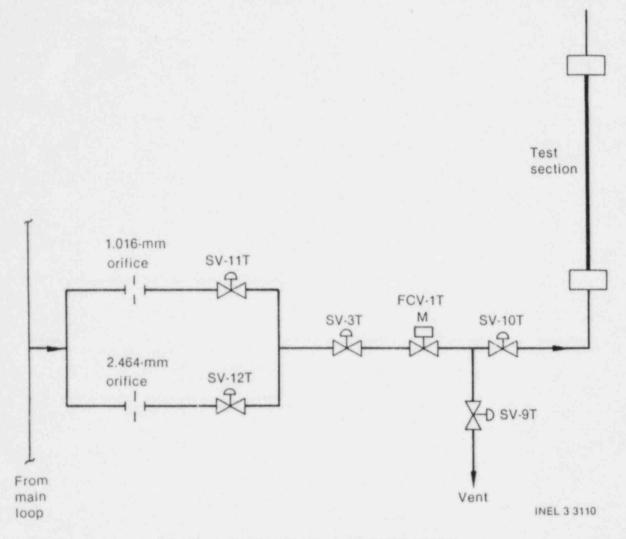


Figure E-15. Revised inlet piping configuration diagram.

E-5. Test Section Current

The test section current was measured by a shunt (a low-resistance, high-current resistor) placed in series with the test section next to the power supply. The shunt voltage taps were connected to the data acquisition system. The shunt was initially calibrated over the full range of current capacity from the power supply (0 to 1300 A).

References

- E-1. W. M. Nijhawan, "Experimental Investigation of Thermal Nonequilibrium in Post-Dryout Steam-Water Flow," Ph.D. Dissertation, Lehigh University, 1980.
- E-2. S. M. Nijhawan et al., "Measurement of Vapor Superheat in Post-Critical-Heat-Flux Boiling," *Journal of Heat Transfer*, 102, 1980, pp. 465-470.

APPENDIX F
MEASUREMENT AND REPORTED PARAMETER UNCERTAINTIES

APPENDIX F MEASUREMENT AND REPORTED PARAMETER UNCERTAINTIES^a

Uncertainties have been estimated for each type of measurement taken during the post-CHF experiments. The results are listed in Appendix E, Table E-1. The methodology used in estimating these uncertainties is that used in the LOFT program. F-1 The uncertainty is defined so that 0.95 is the probability that the error in any randomly selected measurement result will be less than the uncertainty. The individual uncertainty estimates are discussed in the following paragraphs.

F-1. Data Acquisition and Recording

The digital data acquisition and recording system used during the post-CHF experiments is the same type as that used in the Loss-of-Fluid Test (LOFT) facility. The LOFT uncertainty analyses F-2 are directly applicable. The uncertainty is estimated to be 0.13% of the range for each channel. This uncertainty component is combined, using the root-sum-square approximation, with the various individual instrument uncertainties in order to obtain the overall measurement uncertainties. This is described in the following paragraphs.

F-2. Thermocouples

The thermocouples were all Type-K, metal-sheathed, and mineral-insulated, and were built at EG&G Idaho. All thermocouples had ungrounded junctions except TE-LOOP, which was a grounded thermocouple, and TE-FCV-1T, which was an exposed-junction thermocouple. They were used with a Validyne 339 K (150°F) reference junction system. Since the thermocouples, reference junctions, and the acquisition system are all the same as those used in the LOFT system, most of the LOFT temperature measurement uncertainty analysis F-3 is directly applicable here. The two significant differences are that the present thermocouples were made from wire with special tolerance limits (the larger of 1.11 K or 0.00375 [T - 255 K], where T is the temperature in Kelvin), and there is no significant radiation in the system discussed in this report. More detailed discussions and justifications of the following uncertainty estimates are contained in Reference F-3.

The uncertainty contribution associated with variations in the physical or chemical properties of the new thermocouple wire is taken to be equal to the tolerance limit already stated. The gradual calibration change associated with aging gave an uncertainty component estimated to be less than 0.002 [T - 339 K]; this drift component is quite small, because the thermocouples did not have much aging time at high temperatures. The uncertainty due to the short-range-ordering effect is less than 3 K, as described in Reference F-3. The uncertainty contribution from the data acquisition system is about 1.6 K. Uncertainties associated with stray signal pickup, reference junction temperature errors, and cold working are less than 1 K.

The test section was heated by an electrical current that flows through the test section itself. This may result in two separate, but for practical purposes, indistinguishable errors in the readings from those thermocouples mounted on or close to the test section; i.e., magnetic fields caused by the heating current and the leakage of a small part of the heating current through imperfect thermocouple insulators may both result in erroneous readings. The magnetic field effects could, in principle, be predicted from theory; but the current leakage effects are not predictable, because detailed knowledge of the insulator properties is lacking. However, the combined magnitude of the two effects was determined experimentally by simply shutting off the heating current briefly and observing the changes in the thermocouple readings (see Appendix C). This observed change was then used as a correction to the experiment data. Thus, as long as the thermocouple properties did not change during an experiment, the effects of the heating current were removed from the data and did not contribute to the uncertainty.

a. See Acknowledgments section of main text.

The total uncertainty is a gradually increasing function of temperature; it is about 2 K at 300 K, 3.3 K at 625 K, 4.6 K at 1075 K, and 5.4 K at 1300 K. The uncertainty of each contributing factor, as well as the total uncertainty, are plotted as a function of temperature in Figure F-1.

In addition to this uncertainty, there are two mean (bias) error components. The first of these is associated with the polynomial approximation to the correct thermocouple calibration, and the second is associated with short-range ordering. For temperatures between 400 and 1300 K, the estimated mean error is between -2 and -3.5 K. These mean errors are estimated values of the correct temperature minus the measurement result; the mean error should be added to the raw measurement result to obtain an unbiased estimate of the correct value. The mean error is (in principle) knowable and predictable, whereas the uncertainty is (in an intuitive sense) a 95% confidence limit on the magnitude of a random, unpredictable error. The contributing mean errors and the total mean error are plotted as a function of temperature in Figure F-2.

For the vapor probe measurements, there is an additional uncertainty in the measurement due to random fluctuations in the reading. These fluctuations may be due to the turbulent nature of the flow, operation of the vapor probe, or the influence of liquid droplets in the flow. An upper bound estimate of this uncertainty is ± 15 K for the steady-state (fixed quench front) experiments and ± 25 K for the quasi-steady-state (moving quench front) experiments.

F-3. Resistance Thermometer

The resistance thermometer, instrument BF-TE-5 (see Figure F-3), is expected to have essentially the same errors and uncertainty as the LOFT resistance thermometer. F-3 The estimated uncertainty is not more than $[(1.1)^2 + (0.0031 \text{ T})^2]^{1/2}$, where T is the temperature in Kelvin. This gives a worst-case uncertainty of 2.2 K at the high end of the measurement range, 625 K.

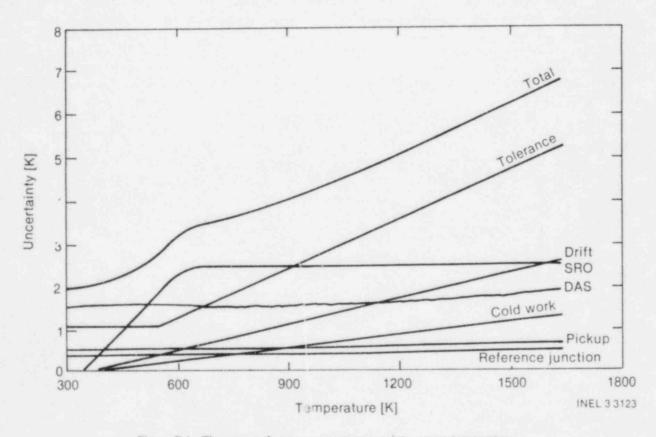


Figure F-1. Thermocouple measurement uncertainty versus temperature.

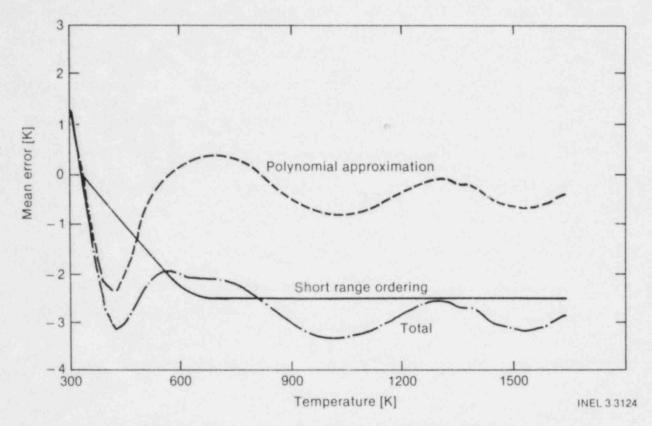


Figure F-2. Thermocouple measurement mean error versus temperature.

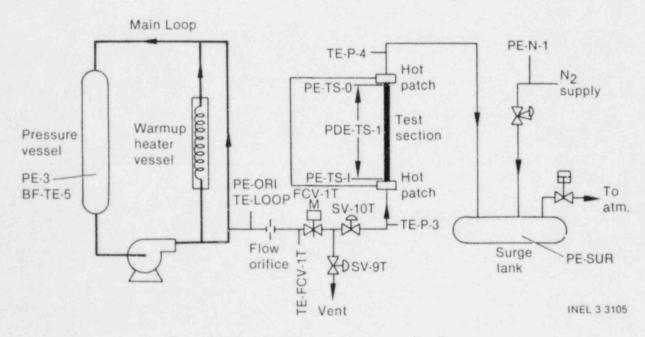


Figure F-3. Experiment loop and instrumentation diagram.

In addition to this uncertainty, there is a mean error of about -1.3 K associated with the use of slightly incorrect calibration coefficients in the data processing.

F-4. Absolute Pressure

Calibration data gave a good measure of the pressure measurement uncertainties associated with hysteresis, nonlinearity, and random scatter in the readings. Additional pressure measurement errors are expected because of transducer temperature variations. No data are available for the temperature sensitivity of these particular transducers; instead, the temperature sensitivities are assumed to be the same as those of typical LOFT pressure transducers. F-4 The range of temperature variations is taken to be 10 K, which is half of that assumed for LOFT. The smaller temperature variation range estimate here is justified on the basis of the post-CHF experiment being done in a well-ventilated area, whereas LOFT is in a sealed containment. On this basis, the uncertainty associated with transducer temperature variations is estimated to be 0.3% of range and 0.1% of reading. The only other recognized, significant uncertainty contribution is the 0.13% of range for the data acquisition system. These various uncertainty contributions are combined by the root-sum-square method to give the overall pressure measurement uncertainties of PE-3, PE-TS-I, PE-TS-0, PE-SUR, PE-ORI, and PE-N-1, as listed in Table E-1 of Appendix E.

To eliminate long-term drift, the offset of each pressure measurement channel was adjusted to make the readings correct, at atmospheric pressure, before each test. This procedure introduces an offset error, if the instrument is nonlinear, so that the best fit straight line (the calibration curve) does not match the actual data at atmospheric pressure. For the transducers considered here, this error is less than 1/3 of the uncertainty listed in Table E-1 of Appendix E.

F-5. Differential Pressure

Calibration data yielded good estimates of the uncertainty associated with hysteresis, nonlinearity, and random scatter in the differential pressure measurements. Although the absolute pressure sensitivities of these differential pressure transducers were checked to ensure that they were not excessive, there are no detailed data on either the pressure or the temperature sensitivities of these differential pressure measurements. These sensitivities are assumed to be the same as those for typical LOFT transducers. F-5 The combined uncertainty associated with temperature and pressure variations is estimated to be 1.9% of range and 4.2% of reading. The effects of hysteresis, nonlinearity, and random scatter are negligible compared with these temperature and pressure effects. The 4.2% reading estimate is based on limited data and may be significantly in error.

For any experiment sequence in which the transducer temperature and the absolute pressure are essentially constant, the error due to these effects is also constant. Thus, any indicated changes in the differential pressure during such experiments are much more accurate than the indicated magnitudes of the differential pressure, with uncertainties on the order of 0.4% of the differential pressure range.

The total uncertainty for each differential pressure measurement, including the 0.13% of range for the data acquisition system, is indicated in Appendix E, Table E-1.

F-6. Heater Voltage and Current

The voltage applied to heat the test section, and the voltages for the two hot patches at the ends of the test section, were measured by using a voltage divider to scale the heater voltage down to a value within the range of the data acquisition system. The heater currents were measured by including a shunt (a low-resistance, high-current resistor) in series with the heater and connecting the shunt voltage taps to the data acquisition system. Thus, the only uncertainties in these voltage and current measurements are caused by

errors in the resistor (voltage divider or shunt) and errors in the data acquisition system. Calibration data give estimates of the uncertainty associated with randomness and nonlinearity in the resistors. The shunts, but not the voltage dividers, may suffer from a significant sensitivity to temperature, but no data are available on this effect. To obtain an order-of-magnitude estimate of temperature effects, we assumed a temperature coefficient of resistivity of 0.00397/K (correct for IACS copper) and temperature variations of 10 K; these assumptions yielded an uncertainty component of about 4% of reading for the current measurements. This estimate is highly speculative, and it is not included in the uncertainty values listed in Table 1. The Table 1 values include the effects of nonlinearity and random variations in the resistors (shunts and voltage dividers), as well as the uncertainty in the data acquisition system.

F-7. Convective Heat Flux

The uncertainty in convective heat flux from the test section wall to the coolant is a function of uncertainties in the heat generated in the tube wall, heat losses from the test section, and, in the case of quasi-steady-state experiments, the stored energy in the tube wall. The convective heat flux uncertainty is described separately for the steady-state and quasi-steady-state experiments, since the uncertainty in heat losses is determined differently for the two types of experiments and the uncertainty in stored energy does not apply to the steady-state experiments.

The uncertainty in convective heat flux is, in reality, different for each data point listed in Appendix H due to the operating procedures, hardware anomalies, and data reduction methods. However, it would be impractical to evaluate an uncertainty for each data point. Therefore, an all-inclusive uncertainty was evaluated for the steady-state and quasi-steady-state series of test runs by using conservatively high values of the individual uncertainties which contribute to the total.

F-7.1 Steady-State Convective Heat Flux. The convective heat flux for the steady-state experiments is described as

$$q_{conv} = q_{gen} \left(\frac{d_o^2 - d_i^2}{4d_i} \right) - q_{loss} \frac{d_o}{d_i}.$$
 (F-1)

The uncertainty in convective heat flux $\,\omega_{q_{conv}}\,$ can be expressed as

$$\left(\omega_{q_{conv}}\right)^{2} = \left[\omega \left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}} q_{gen}\right)^{2} + \left[\left(\frac{d_{o}}{d_{i}}\right)\omega_{q_{loss}}\right]^{2} + \left[q_{loss}\omega \left(\frac{d_{o}}{d_{i}}\right)^{2}\right].$$
 (F-2)

In order to evaluate the first term in Equation (F-2), the volumetric heat generation rate for a tube segment is taken from Appendix K as

$$q_{gen} = \frac{(VOLT)(AMP)\left[\frac{\Delta Z}{(HL)}\right]\left(\frac{R}{RREF}\right)}{\frac{\pi}{4}\left(d_o^2 - d_i^2\right)\Delta Z}.$$
 (F-3)

Therefore,

$$\left[\omega \left(\frac{d_o^2 - d_i^2}{4d_i} q_{gen}\right)\right]^2 = \left\{\omega \left[\left(\frac{d_o^2 - d_i^2}{4d_i}\right)(VOLT)(AMP)\left[\frac{\Delta Z}{(HL)}\right]\left(\frac{R}{RREF}\right)\right]^2$$

$$= \left\{ \omega \left[\frac{(\text{VOLT})(\text{AMP}) \left(\frac{R}{\text{RREF}} \right)}{\pi d_{1}(\text{HL})} \right]^{2} \right\}. \tag{F-4}$$

The uncertainty in the ratio of local tube resistance to the total resistance R/RREF is assumed to be small compared to the other contributing factors. The uncertainties in test section voltage and current are taken from Appendix E, Table E-1 as $\omega_{VOLT}=0.0787$ V and $\omega_{AMP}=1.69$ A.

Direct measurements of the test section inner diameter were not made; however, the test section outer diameter was measured periodically during the test. The uncertainty in test section outer diameter (20) is 0.0517 mm. The uncertainty in test section inner diameter was also assumed to be 0.0517 mm. For the steady-state experiments, the uncertainty in test section heated length (HL) was assumed to be 5 mm, due to measurement error.

Therefore,

$$\left[\omega \frac{\left(\frac{d^{2} - d^{2}_{i}}{dd_{i}}\right)^{2}}{4d_{i}}q_{gen}\right]^{2} = \left[\frac{AMP}{\pi d_{i}(HL)}\omega_{VOLT}\right]^{2} + \left[\frac{VOLT}{\pi d_{i}(HL)}\omega_{AMP}\right]^{2} + \left[\frac{(VOLT)(AMP)}{\pi d_{i}(HL)^{2}}\omega_{(HL)}\right]^{2}$$

$$+ \left[\frac{(AMP)(0.0787)}{\pi d_{i}^{2}(HL)}\omega_{d_{i}}\right]^{2} + \left[\frac{(VOLT)(1.69)}{\pi d_{i}(HL)^{2}}\omega_{(HL)}\right]^{2}$$

$$= \left[\frac{(AMP)(0.0787)}{(\pi)(0.0157)(2.13)}\right]^{2} + \left[\frac{(VOLT)(1.69)}{(\pi)(0.0157)(2.13)}\right]^{2}$$

$$+ \left[\frac{(VOLT)(AMP)(5.17 \times 10^{-5})}{(\pi)(0.0157)^{2}(2.13)}\right]^{2} + \left[\frac{(VOLT)(AMP)(0.005)}{(\pi)(0.0157)(2.13)^{2}}\right]^{2}$$

$$= [0.56 \text{ AMP}^{2} + 258.8 \text{ VOLT}^{2}$$

$$+ 1.482 \times 10^{-3} \text{ VOLT}^{2} \text{ AMP}^{2}] \quad \text{W}^{2}/\text{m}^{4} . \quad (F-5)$$

For the second term in Equation (F-2), the uncertainty in test section heat loss was determined from the standard deviation of the measured heat loss to the best fit linear approximation, as shown in Figure I-1 of Appendix I, for the eight heat loss experiments conducted. The measured heat losses and approximations from the line used to calculated the standard deviation are as follows:

Test Number	Qloss measured (W)	Q _{loss line} (W)
9.4.A	16.47	17.37
9.4.B	60.62	71.05
9.4.C	146.19	123.68
9.4.D	14.55	17.37
9.4.E	70.22	70.0
9.4.F	128.83	123.68
9.4.G	122.74	122.63
9.4.H	69.39	65.53

The standard deviation is

$$\sigma_{\text{Q}_{\text{loss}}} = \sqrt{\frac{\sum_{\text{Q}_{\text{loss meas.}}}^{\text{Q}_{\text{loss line}}}^{\text{Q}_{\text{loss line}}}^{\text{Q}_{\text{loss}}}}{n-2}} = 10.47 \text{ W} .$$
 (F-6)

The uncertainty (20) in heat loss is 20.94 W. Averaged over the test section area (0.12826 m²), the uncertainty in heat loss is 163.27 W/m^2 .

The second term in Equation (F-2) is

$$\left(\frac{d_o}{d_i} \omega_{q_{loss}}\right)^2 = \left[\left(\frac{19.14}{15.7}\right)\left(\frac{163.27}{1000}\right)\right]^2 = 0.0396 \text{ kW}^2/\text{m}^4.$$
 (F-7)

The third term in Equation (F-2) is

$$\left[q_{loss} \omega \left(\frac{d_o}{d_i}\right)^2 = q_{loss}^2 \left(\frac{\omega_d^2}{d_o^2} + \frac{\omega_d^2}{d_i^2}\right). \tag{F-8}$$

Assuming the maximum Q_{loss} to be 175.3 W (see Appendix I, Figure I-1), at a test section temperature of 1100 K, this reduces to

$$\left[q_{\text{loss}} \omega \left(\frac{d_{\text{o}}}{d_{\text{i}}}\right)^{2} = \left(\frac{175.3}{0.12826}\right)^{2} \left[\frac{(0.0517)^{2}}{(19.14)^{2}} + \frac{(0.0517)^{2}}{(15.7)^{2}}\right] \left(\frac{1}{1000}\right)^{2}$$

$$= 3.39 \times 10^{-5} \text{ kW}^{2}/\text{m}^{4} . \tag{F-9}$$

Therefore, the third term in Equation (F-2) is negligible, compared to the second term.

Assuming the maximum test section voltage and current tested were 10 V and 350 A, respectively, the first term in Equation (F-2) would equal 0.113 kW²/m⁴.

Therefore, the dominant uncertainty in the convective heat flux is the uncertainty in the measured voltage and current at high power levels and the uncertainty in heat loss at lower power levels. Thus, the uncertainty in steady-state convective heat flux is

$$\omega_{\text{q}_{\text{conv}}} = [0.56 \text{ AMP}^2 + 258.8 \text{ VOLT}^2 + 1.482 \text{ x } 10^{-3} \text{ VOLT}^2 \text{AMP}^2 + 3.9617 \text{ x } 10^4]^{1/2} \text{ W/m}^2$$
(F-10)

and is a function of test section voltage and current. For example, for a high test section voltage and current of 10 V and 350 A, the uncertainty in convective heat flux would be 0.39 kW/m². For a low voltage and current of 4 V and 140 A, the uncertainty in convective heat flux would be 0.235 kW/m².

F-7.2 Quasi-Steady-State Convective Heat Flux. The basic differences in the uncertainty in convective heat flux between the steady-state and quasi-steady-state experiments are due to:

- 1. The manner of conducting the quasi-steady-state experiments, with tube-insulation heatup and cooldown during the experiments leading to uncertainties in the heat flux between the test section and the surrounding insulation (see Appendix I);
- The addition of a gamma densitometer source adjacent to the test section near the 1.22-m vapor probe location;
- 3. Additional uncertainty in the heated length of the test section; and
- 4. Uncertainty in the stored energy of the test section wall.

For the quasi-steady-state experiments, the convective heat flux is described as

$$q_{conv} = q_{gen} \left(\frac{d_o^2 - d_i^2}{4d_i} \right) + q_{loss} \left(\frac{d_o}{d_i} \right) + \varrho C \frac{dT}{dt} \left(\frac{d_o^2 - d_i^2}{4d_i^2} \right).$$
 (F-11)

The uncertainty in convective heat flux can be expressed as

$$\left(\omega_{q_{conv}}\right)^{2} = \left[\omega\left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}} q_{gen}\right)^{2} + \left[\left(\frac{d_{o}}{d_{i}}\right)\omega_{q_{loss}}\right]^{2} + \left[q_{loss}\omega\left(\frac{d_{o}}{d_{i}}\right)^{2}\right]^{2} + \left[\left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}}\right)^{2} + \left(\frac{\omega_{C}^{2}}{2}\right)^{2} + \left(\frac{\omega_{C}^{2}}{2}$$

It was shown in Section 7.1 of this Appendix that uncertainties in d_0 and d_i were negligible. Also, it is assumed that uncertainties in ϱ and C are negligible, compared to the other uncertainties. Therefore, Equation (F-4) reduces to

$$\left(\omega_{q_{conv}}\right)^{2} = \left[\omega \left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}} q_{gen}\right)^{2} + \left[\left(\frac{d_{o}}{d_{i}}\right)\omega_{q_{loss}}\right]^{2} + \left[\left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}} q_{gen}\right)^{2} + \left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}} q_{gen}\right)^{2} + \left(\frac{d_{o}^{2} - d_{i}^{2}}{\Delta t} q_{loss}\right)^{2} \right]$$

$$+ \left(\frac{d_{o}^{2} - d_{i}^{2}}{4d_{i}} q_{ec} + \frac{\omega(T_{2} - T_{1})}{\Delta t}\right)^{2} .$$
(F-13)

The first term in Equation (F-13) is evaluated in the same manner as the first term in Equation (F-2) for the steady-state case, except that the maximum uncertainty in the test section heated length is 1.91 cm rather than 5 mm. Therefore, the first term in Equation (F-5) becomes:

$$[0.56 \text{ AMP}^2 + 258.8 \text{ VOLT}^2 + 8.268 \times 10^{-3} \text{ VOLT}^2 \text{ AMP}^2] \text{ W}^2/\text{m}^4$$
 (F-14)

The second term in Equation (F-13) is evaluated separately for the region near the vapor probe at the 1.22-m elevation, as compared to the remainder of the test section, due to the gamma densitometer source near the 1.22-m elevation, resulting in different uncertainties in the test section heat loss. Evaluation of the uncertainty in heat loss for the majority of the test section is done in Section 2 of Appendix I. The maximum uncertainty in heat loss was determined to be no greater than 2 kW/m². Thus, the second term in Equation (F-13) is

$$\left[\left(\frac{d_o}{d_i} \right) \omega_{q_{loss}} \right]^2 = \left[\left(\frac{19.14}{15.7} \right) (2) \right]^2 = 5.945 \text{ kW}^2/\text{m}^4 .$$
 (F-15)

For the region near the 1.22-m probe elevation, the uncertainty in heat loss is estimated to be 0.05 Q_{conv}. Thus, the second term in Equation (F-5) becomes

$$\left[\left(\frac{19.14}{15.7} \right) 0.05 \, q_{conv} \right]^2 = 0.0037 \, q_{conv}^2 \, kW^2/m^4 . \tag{F-16}$$

This uncertainty applies to those elevations where a value for q_{loss} is given in the tabulated data shown in Appendix H.

Section 4 of the main text presents a discussion of the method used to time average the tube wall stored energy. The third term in Equation (F-13) represents the uncertainty in the temperature difference of the tube between the beginning and end of the time interval (\Delta t) used. The uncertainty

$$\omega$$
(T₁ - T₂)

was determined to be 2 K, and the normal time interval used was 20 s. Therefore, the third term in Equation (F-13) becomes

$$\left[\frac{d_0^2 - d_1^2}{4d_1} \varrho C \frac{\omega (T_2 - T_1)}{\Delta t}\right]^2 = \left[\frac{(0.01914^2 - 0.0157^2)}{(4)(0.0157)} \left(8446 \frac{kg}{m^3}\right) \left(0.586 \frac{kW \cdot s}{kg \cdot K}\right) \left(2 \frac{K}{20 s}\right)^2 \right]$$

$$= 0.89 \text{ kW}^2 \text{m}^4 . \tag{F-17}$$

Therefore, for the regions of the test section removed from the densitometer source, the uncertainty in convective heat flux is

$$\omega_{\text{q}_{\text{conv}}} = (0.56 \text{ AMP}^2 + 258.8 \text{ VOLT}^2 + 8.268 \times 10^{-3} \text{ VOLT}^2 \text{ AMP}^2 + 5.945 \times 10^6 + 0.89 \times 10^6)^{1/2} \text{ W/m}^2.$$
 (F-18)

At a maximum voltage and current level of 20 V and 700 A, the uncertainty would be 2.97 kW/m^2 . At a minimum voltage and current level of 4 V and 140 A, the uncertainty would be 2.62 kW/m^2 . The

uncertainty due to heat loss is the major contributor in both cases and is the only significant contributor at low power levels.

For the region of the test section near the gamma densitometer source, the uncertainty is

$$\omega_{\text{q}_{\text{conv}}} = (0.56 \text{ AMP}^2 + 258.8 \text{ VOLT}^2 + 8.268 \times 10^{-3} \text{ VOLT}^2 \text{ AMP}^2 + 3.716 \times 10^{-3} \text{ q}_{\text{conv}}^2 + 0.89 \times 10^6) \text{ W/m}^2.$$
 (F-19)

Again, the uncertainty in heat loss is by far the most significant contributor.

For Runs 190 through 247, the heated length of the test section was shortened to 1.33 m. This would change the value of the first term in Equation (F-13), but the change would be very small compared to the uncertainty in heat loss. Therefore, this change was not considered separately for Runs 190 through 247.

F.8. Mass Flux

The test section mass flow rate was determined, using a flow orifice as discussed in Section 3 of Appendix E, and is calculated with the following equation:

$$\dot{m} = A\sqrt{\varrho\Delta P}$$
 (F-20)

where

m = mass flow rate (kg/s)

 ϱ = fluid density (kg/m³)

 ΔP = orifice pressure drop (kPa)

$$A = \text{calibration coefficient} \left(\frac{kg \cdot m^3}{s^2 \cdot kPa} \right)^{1/2}.$$

The uncertainty in mass flow rate is

$$\omega_{\rm m}^2 = \frac{A^2 \Delta P}{4\varrho} \omega_{\varrho}^2 + \frac{A^2 \varrho}{4\Delta P} \omega_{\rm P}^2 + \varrho \Delta P \omega_{\rm A}^2 . \tag{F-21}$$

At typical main loop operating conditions of 16 MPa and 600 K, the uncertainty in fluid density (ϱ), due to uncertainties in the measured temperature and pressure, is 11.4 kg/m³. From Table E-1, of Appendix E the uncertainty in orifice pressure drop is a function of the particular ΔF cell used. Most of the data points used PDE-0-5, however, which has an uncertainty of $[(2.74)^2 + (0.042 \Delta P)^2]^{1/2}$. The uncertainty in the calibration constant (A) is approximately 2% for any of the six combinations of orifice plates and ΔP cells used. Therefore, the uncertainty in mass flow rate using PDE-0-5 is

$$\omega_{\text{m}} = \left\{ \frac{A^2 \Delta P}{4\varrho} (11.4)^2 + \frac{A^2 \varrho}{4\Delta \varrho} [(2.74)^2 + (0.042 \Delta P)^2] + \varrho \Delta P (4.872 \times 10^{-7})^2 \right\}^{1/2}$$
(F-22)

and is a function of the particular operating conditions for a test run. For example, a typical test run using PDE-0-5 would have an orifice ΔP of 35 kPa. Assuming a fluid density of 657 kg/m³, the uncertainty in flow rate would be

$$\omega_{\dot{m}} = \left\{ \frac{(2.436 \times 10^{-5})^{2} (35)(11.4)^{2}}{(4)(657)} + \frac{(2.436 \times 10^{-5})(657)}{(4)(35)} \left[(2.74)^{2} + (0.042)^{2} (35)^{2} \right] + (657)(35)(4.872 \times 10^{-7})^{2} \right\}^{1/2}$$

$$\omega_{\dot{m}} = \left[1.027 \times 10^{-9} + 2.785 \times 10^{-9} + 5.458 \times 10^{-9} \right]^{1/2}$$

$$\omega_{\dot{m}} = 9.6278 \times 10^{-5} \text{ kg/s} . \tag{F-23}$$

For this particular case, the actual flow rate would be

$$\dot{m} = A\sqrt{\varrho\Delta P} = 2.436 \times 10^{-5} [(657)(35)]^{1/2} = 3.694 \times 10^{-3} \text{ kg/s}$$
 (F-24)

The uncertainty would be

$$\frac{9.628 \times 10^{-5}}{3.694 \times 10^{-3}} = 2.6\% .$$

References

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APPENDIX G TEST SECTION DRAWINGS

APPENDIX G TEST SECTION DRAWINGS

This appendix contains drawings of the test section and associated hardware. Dimensional and experimental instrumentation information necessary for computer code modeling of the test section can be obtained from these drawings, as well as details of fabrication. Figure G-1 (Drawing 415267) shows the configuration of the Inconel tube

test section and lower and upper hot patches, and Figure G-2 (Drawing 415264) shows the details of the hot patch design. Figure G-3 (Drawing 415268) shows the installation of the test section onto the test stand, as well as the inlet line configuration and vapor probe micrometering valve installation.

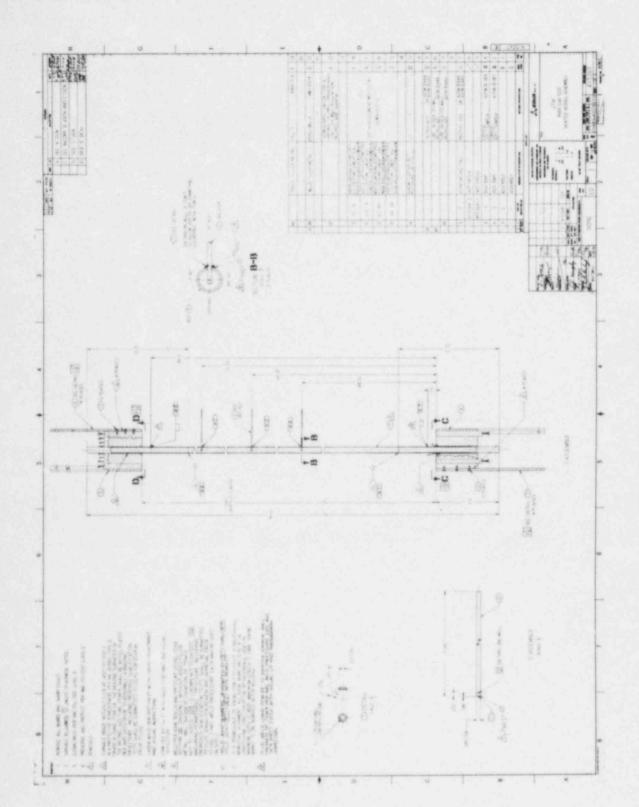


Figure G-1. Test section drawing.

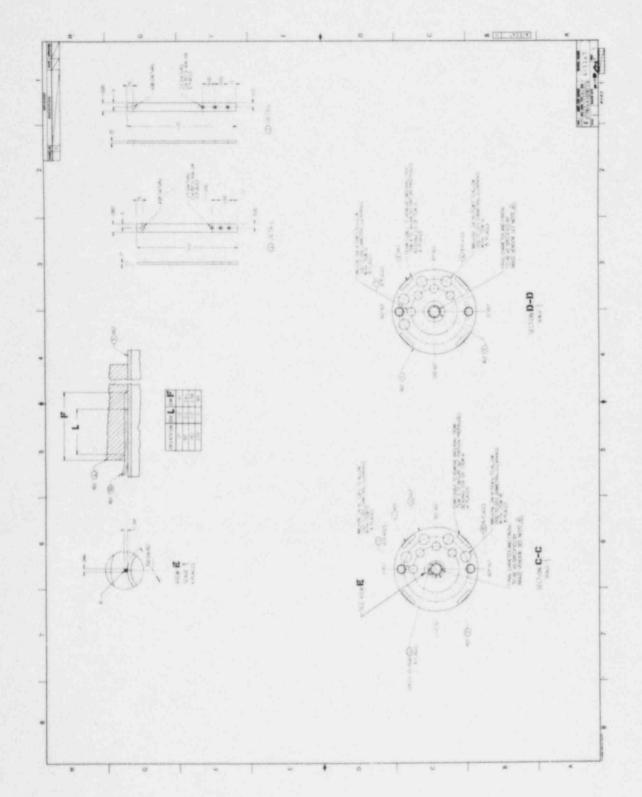


Figure G-1. (continued).

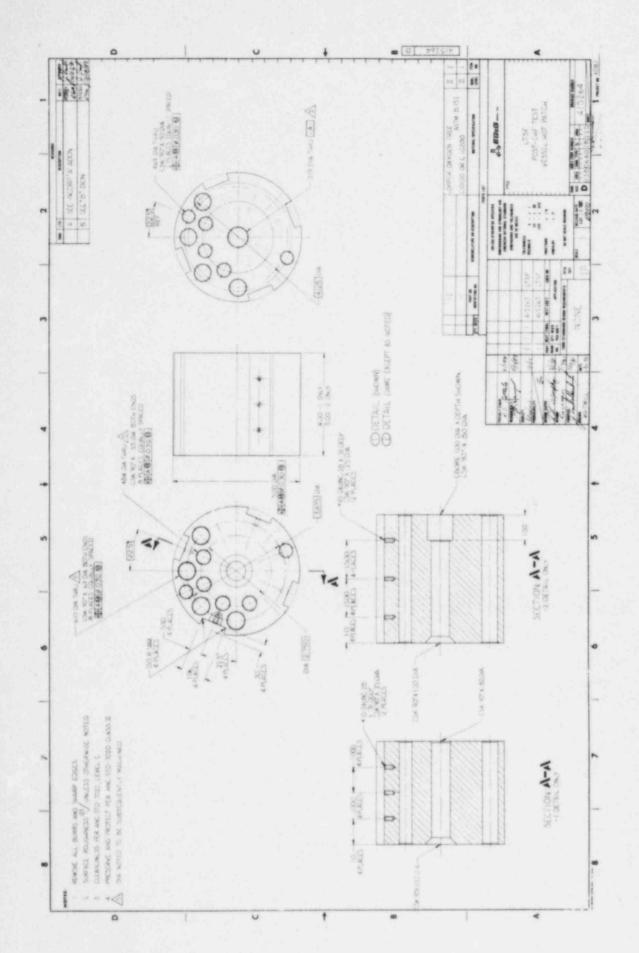


Figure G-2. Hot patch detail drawing.

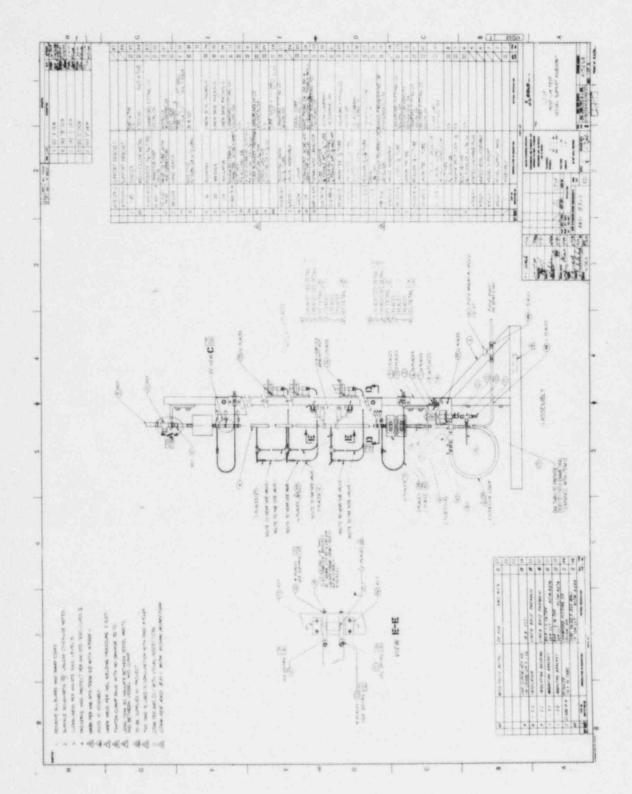


Figure G-3. Test section stand installation drawing.

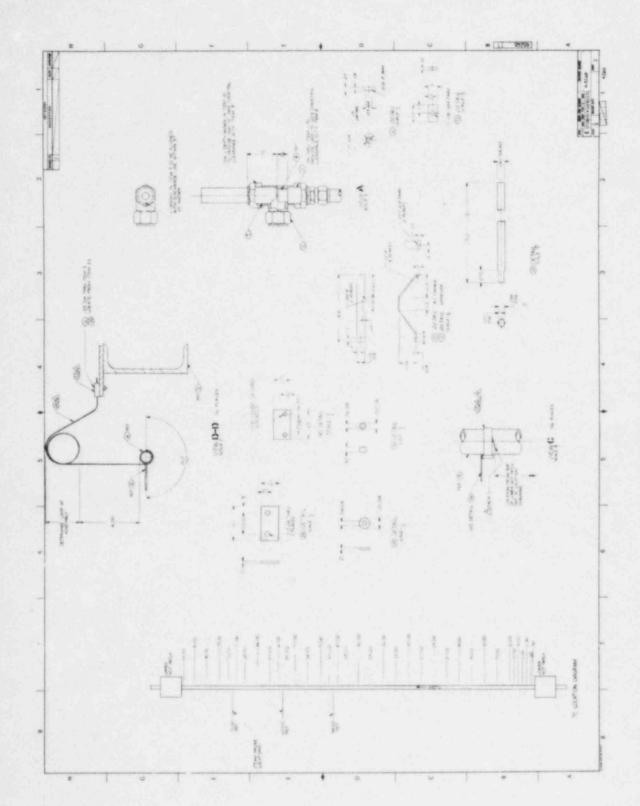


Figure G-3. (continued).

APPENDIX H REDUCED EXPERIMENTAL DATA

APPENDIX H REDUCED EXPERIMENTAL DATA

The reduced heat transfer experimental data in engineering units are reported in the first part of this appendix. Eighty-three data points from thirty-seven steady-state runs are reported. Six hundred and eighty-three data points from seventy-one quasisteady-state runs are reported.

For a given data point, the parameters reported include test section pressure and its associated saturation temperature, mass flux, test section inlet equilibrium quality and enthalpy, quench front elevation and velocity, and equilibrium quality at the quench front. The thermal-hydraulic conditions of the fluid upstream of the flow control valve FCV-1T are given. Also reported are the wall temperature, equilibrium quality, and convective heat flux at each wall thermocouple location. At the vapor probe location, the distance of the quench front from the vapor probe (DZQF), the vapor temperature, and the equilibrium and actual qualities are reported.

Each experimental point is identified with a point number which may be written generally as PXXX.YYI. Within this point number, the digits represent the following quantities:

= Vapor probe number = 1, 2, or 3

XXX = run number

YY = a counter on the number of points initially considered for the run

D, data point with a measured

Vapor temperature

1, data point with an inferred vapor temperature.

The counter YY often does not begin at 1 for any given run because some of the points originally considered for the run have not been selected in this final data base.

The second part of this Appendix lists the 162 vapor generation rate data points obtained from this experiment. For each given data point, the reported parameters included point number, pressure, mass flux, vapor temperature, the quality at and distance from the quench front, the actual and equilibrium qualities, the change in actual quality with elevation, and the calculated vapor generation rate.

The point identification for the vapor generation data is the same as for the heat transfer data.

POINT SERIAL NO. 1003.010 (TIME= 150.50 SEC)

POINT SER	AL NO. 10	002.010	(TIME= 156	.50 SEC)
LOOP PRESS			7.01	
ECV TEMPER	ATURE (TE-	ECV-11)	505.4	
LHP INLET			1.002E+06	J/KG
TEST SECTI PRESS			200	MPA
SAT I			424.22	
MASS				KG/SEC-M**2
	QUALITY		.364	
INLET	ENTHALPY		1.405E+06	J/kG
QUENCH FRO				
ELEVA			102	
VELOC QUAL I			0.0000	M/SEC
NET LHP PO		HD	1083.2	u
VAPOR TEMP	ERATURE MI	EASUREMENT	LOCATION XE XA	INFORMATION
(M)	(M)	(K)	AL XA	
(11)	(m)	(x)		
1.219	1.321	824.8	.534 .380	
WALL TEMPE	RATURE MEA	ASUREMENT	LOCATION II	NEORMATION
ELEVATION	TEMP	XE	HEAT	FLUX
(M)	(K)		W/M	**2
.013	747.5	. 366	1.68	F+04
.025	748.6	. 368		
.051	749.1	. 372		
.076	758.9	.375	1.65	
. 102	764.9	. 379	1.71	
. 127	777.2	. 383		
, 152	785.7	.387	1.70	
.305	832.0 862.5	.410		
.457	883.8	.432		
.533	902.5	.442		
.610	920.0	.452		
.686	935.8	.462		
.762	954.1	.472		
.838	972.2	.482		
.914	983.1	.492		
.991	1001.5	.503		
1.067	1009.8	.514		
1.194	999.5	.530		
1.245	977.6	.537		
1.295	997.6	544		Sec. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10
1.372	1012.5	.555		
1.448	1027.4	.565	1.51	E+04
1.499	1022.1	.572		
1.549	1004.1	.579		
1.600	1013.1			
1.676	1029.3	.596		
	1028.1	.606		
		.013		E 7 U14
1.803		610	1 44	F+Oh
1.803	1001.9	.619		
1.803		.619 .626 .636	1.64	E+04

					20 000
LOOP PRESSI	URE(PE-3)			7.01	MPA
FCV TEMPERA	ATURE (TE-F	CV-1T)		504.5	K
LHP INLET I			9.97	5E+05	J/KG
TEST SECTIO	ON:				
PRESSI	URE			.48	MPA
SA1 TI	EMP		- 4	23.82	K
MASS	FLUX			18.09	KG/SEC-M*#2
INLET	QUALITY			318	
	ENTHALPY		1.30	5E+06	J/KG
QUENCH FROM					
ELEVA				-, 102	М
VELOC	HY		- 0		M/SEC
QUALI				.172	Walter Common Co
NET LHP PO		ID	. 1	078.2	W
VAPOR TEMP	EKATURE ME	ASUREMENT	LOCA	TION	INFORMATION
ELEVATION		TV	XE	XA	
(M)	(M)	(K)			
1.219	1.321	798.7	. 434	.316	
					and the same of the same
WALL TEMPER			LUCAT		
ELEVATION	TEMP	XE			FLUX
(M)	(K)			W/M	**2
.013	732.0	. 319		1,28	E+04
.025	720.5	.320		1.30	E+04
.051	704.6	. 322		1.31	E+04
.076	709.0	. 324		1.31	
. 102	712.4	. 327		1.38	
.127	721.0			1.48	
. 152	728.9	.332		1.51	
. 305	780.9	. 347		1.49	
. 381	813.3	.355		1.57	
.457	835.6	. 362		1.56	
.533	858.7	.371		1.60	
.610	876.5	.379		1.57	
.686	890.5	.386		1.53	
.762	906.8	. 394		1.50	
. 838	925.6	,402		1.41	
.914	935.8	,409		1.35	
.991	950.9	.415		1.29	
1.067	959.7	.422		1.26	
1.143	955.9	. 428		1.25	
1.194	957.3			1.14	
1.245	939.1	.436		1.21	
1.295		.440		1.24	
1.372	959.2 973.9			1.25	
1.448	987.6	.453		1.20	
1.499	984.1	.457		1.17	
1.549	969.8	.461		1.14	
1,600				1,19	
1.676	980.7	. 465		1.16	
		.471			
1.753	998.6	.477		1.14	
1.803	991.8	. 480		1.04	
1.854	968.3	.484		1.13	
1.905	969.3	.488		1.23	
1.981	518.7	. 496		1.91	
2.057	483.1	.504		1.13	L+04

1.981

2.057

458.6

454.5

.676

.684

1.10E+04

9.73E+03

POINT SERIAL NO. 1004.010 (TIME= 135.50 SEC) 7.00 MPA LOOP PRESSURE (PE-3) 503.9 K FCV TEMPERATURE (TE-FCV-1T) 9.948E+05 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.93 K SAT TEMP 12.08 KG/SEC-M**2 MASS FLUX . 394 INLET QUALITY INLET ENTHALPY 1.468E+06 J/KG QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY . 170 QUALITY NET LHP POWER TO FLUID 1109.5 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (K) (M) (M) 1,219 1.321 732.6 .524 .402 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX TEMP XE ELEVATION W/M##2 (M) (K) 720.9 . 396 1.05E+04 .013 .397 705.7 1.05E+04 .025 .400 683.3 1.04E+04 .051 .402 .076 684.7 1.06E+04 685.7 . 405 1.09E+04 . 102 .408 1.05E+04 .127 693.0 .410 1.04E+04 698.3 . 152 .305 1.03E+04 732.8 .426 .381 757.5 . 434 1.07E+04 .457 772.7 .442 1.07E+04 791.6 1.00E+04 .450 .533 .457 1.02E+04 807.2 .610 .686 1.09E+04 820.6 .466 .762 837.2 .474 1.07E+04 .482 1.12E+04 .838 854.4 867.0 .491 1.13E+04 .914 991 884.1 .499 1.08E+04 892.9 507 1.10E+04 1.067 1.08E+04 891.2 .516 1.143 .521 1.07E+04 1.194 892.7 1.245 .527 1.15E+04 879.1 898.6 .532 1.14E+04 1.295 .541 1.16E+04 1.372 914.4 1.448 927.7 .550 1.07E+04 1.499 926.2 .555 1.06E+04 1.549 916.9 .560 1.09E+04 1,600 927.9 .566 1.13E+04 .574 941.9 1.07E+04 1.676 945.6 .583 1.30E+04 1.753 1.803 647.8 -620 1.34£+05 1.854 485.1 .659 1.94E+04 1.905 448.8 .667 1.22E+04

POINT SERIAL NO. 1006.010 (TIME= 600.50 SEC) FCV TEMPERATURE (TE-FCV-1T) 610.3 K 1.567E+06 J/KG LOOP PRESSURE(PE-3) TEST SECTION: -.49 MPA PRESSURE 424.34 K SAT TEMP 14.22 KG/SEC-M**2 MASS FLUX INLET QUALITY .551 1.801E+06 J/KG INLET ENTHALPY QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY . 4441 QUALITY NET LHP POWER TO FLUID 657.7 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZQF (K) (M) (M) 1.219 1.321 773.7 .718 .532 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX ELEVATION TEMP W/M##2 (K) (M) .013 . 553 1.73E+04 765.2 .555 1.71E+04 .025 758.9 .559 1.68E+04 .051 750.8 .562 1.67E+04 754.5 .076 .566 1.67E+04 755.5 . 102 1.66£+04 .127 569 762.8 . 152 .573 1.66E+04 767.0 .594 1.66E+04 . 305 799.5 .604 823.2 1.66E+04 . 381 838.0 .615 1.65E+04 .457 854.2 .625 1.65E+04 .533 .636 1.65E+04 .610 869.4 . 646 1-65E+04 .686 884.4 900.5 .657 1.64E+04 .762 1.63E+04 915.9 .667 .838 1.62E+04 .914 928.4 .677 .688 1.62E+04 .991 945.6 .698 1.61E+04 1.067 957.8 .708 1.61E+04 1,143 953.8 1.50E+04 1.194 957.6 .715 1.62E+04 1.245 934.4 .721 .728 1.61E+04 1.295 950.4 .738 1.61E+04 1.372 972.7 . 749 1.60E+04 1.448 995.3 1.48E+04 . 755 1.499 998.3 .762 1.60E+04 1.549 996.1 . 768 1.60E+04 1.600 1009.5 .778 1.676 1035.6 1.59E+04 . 788 1.58E+04 1.753 1052.7 1.47E+04 1.803 1050.4 . 795 1023.7 .801 1.58E+04 1.854 .808 1031.7 1.59E+04 1.905 .818 1.60E+04 1.981 1052.2

2.057

1005.3

.828

1.64E+04

POINT SERIAL NO. 2006.010 (TIME= 600.50 SEC)

16.08 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (1E-FCV-1T) 610.3 K LHP INLET ENTHALPY 1.567E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 424.34 K 14.22 KG/SEC-M**2 MASS FLUX .551 INLET QUALITY INLET ENTHALPY 1.801E+06 J/KG QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY 441 QUALITY NET LHP POWER TO FLUID 657.7 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZQF (M) {K} (M)

1.626 857.8 .758 .527 1.524

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMATION
ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		W/M**2
644	200.0	***	1.73E+04
.013	765.2	.553	1.71E+04
.025	758.9	-555	1.115 +04
.051	750.8	.559	1.68E+04
.076	754.5	-562	1.67E+04
. 102	755.5	. 566	1.67E+04
. 127	762.8	.569	1.66E+04
. 152	767.0	.573	1.66£+04
. 305	799.5	.594	1.66E+04
. 381	823.2	.604	1.66E+04
-457	838.0	.615	1.65E+04
.533	854.2	.625	1.65E+04
.610	869.4	. 636	1.65E+04
.686	884.4	.646	1.65E+04
.762	900.5	.657	1.64E+04
.838	915.9	-667	1.63E+04
.914	928.4	-677	1.62E+04
.991	945.6	.688	1.62E+04
1.067	957.8	.698	1.61E+04
1.143	953.8	.708	1.61E+04
1.194	957.6	.715	1.50£+04
1.245	934.4	.721	1.62E+04
1.295	950.4	.728	1.61E+04
1.372	972.7	.738	1.61E+04
1.448	995.3	.749	1.60E+04
1.499	998.3	. 755	1.48E+04
1.549	996.1	.762	1.60E+04
1,600	1009.5	.768	1.60E+04
1.676	1035.6	.778	1.59E+04
1.753	1052.7	. 788	1.58E+04
1.803	1050.4	. 795	1.47E+04
1.854	1023.7	.801	1.58E+04
1.905	1031.7	.808	1.59E+04
1.981	1052.2	.818	1.60E+04
2.057	1005.3	-828	1.64E+04

POINT SERIAL NO. 1007.010 (TIME= 470.50 SEC)

LOOP PRESSURE(PE-3) 16.15 MPA FCV TEMPERATURE (TE-FCV-1T) 609.3 K LHP INLET ENTHALPY 1.559E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.86 K MASS FLUX 13.74 KG/SEC-M**2 INLET QUALITY 1.764E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION. -.102 M VELOCITY 0.0000 M/SEC QUALITY .438 NET LHP POWER TO FLUID 550.4 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF ELEVATION TV XE XA (M) (M) (K)

1.219 1.321 753.1 .675 .508

WALL TEMPER	TEMP	XE	BEAT FLUX
(M)	(K)		W/M**2
.013	757.5	-536	1.34E+04
.025	746.1	.538	1.35€+04
.051	730.4	.541	1.35E+04
.076	730.1	.544	1.34E+04
. 102	727.8	.547	1.34E+04
. 127	732.8	.550	1.35E+04
. 152	735.8	.553	1.35E+04
. 305	766.0	.571	1.35E+04
. 381	789.0	.580	1.35E+64
.457	804.8	.588	1.35E+04
.533	822.0	.597	1.34E+04
.610	837.8	.606	1.33E+04
.686	852.1	.615	1.33E+04
.762	868.6	.624	1.32E+04
.838	883.1	.633	1.32E+04
.914	894.9	.641	1.31E+04
.991	910.9	.650	1.31E+04
1.067	921.8	-659	1.30E+04
1.143	918.4	.667	1.30E+04
1.194	921.9	.673	1.21E+04
1.245	903.7	.678	1.31E+04
1.295	920.0	-684	1.30E+04
1.372	941.4	.693	1.29E+04
1.448	962.7	.701	1.29E+04
1.499	965.6	. 707	1.20E+04
1.549	964.9	.712	1.30E+04
1.600	978.1	.718	1.29E+04
1.676	1002.5	.726	1.28E+04
1.753	1018.7	.735	1.28E+04
1.803	1017.1	.740	1.19E+04
1.854	994.7	.746	1.29E+04
1.905	1002.1	. 752	1.28E+04
1.981	1023.8	.760	1.28E+04
2.057	1001.7	. 768	1.16E+04

.991

1.667

1.143

1.194

1.245

1.295

1.372

1.448

1.499

1.549

1,600

1.676

1.753

1.803

1.854

1.905

1.981

2.057

910.9

921.8

918.4

921.9

903.7

920.0

941.4

962.7

965.6

964.9

978.1

1002.5

1018.7

1017.1

994.7

1002.1

1023.8

1001.7

PGINT SERIAL NO. 2007.010 (TIME= 470.50 SEC) LOOP PRESSURE(PE-3) 16.15 MPA FCV TEMPERATURE (TE-FCV-1T) 609.3 K 1.559E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.86 K 13.74 KG/SEC-M**2 MASS FLUX .535 INLET QUALITY 1.764E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION -. 102 M 0.0000 M/SEC VELOCITY . 438 QUALITY 550.4 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA DZQF IV ELEVALION (M) (M) (K) 835.8 .709 .501 1.626 1.524 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX TEMP XE ELEVATION W/M##2 {K} (M) 1.34E+04 .536 .013 757.5 1.35E+04 .025 746.1 .538 .541 1.35E+04 .051 730.4 .544 1.34E+04 .076 730.1 1.34E+04 .547 . 102 727.8 .550 1.35E+04 .127 732.8 .553 1.35E+04 . 152 735.8 1.35E+04 766.0 .571 .305 1.35E+04 .381 789.0 .580 .588 1.35E+04 .457 804.8 822.0 .597 1.34E+04 .533 .606 1.33E+04 837.8 .610 1.33E+04 .686 .615 852.1 1.32E+04 868-6 .624 .762 1.32E+04 883.1 .633 .838 .641 1.31E+04 894.9 .914

-050

.659

.667

.673

.678

.684

.693

.701

.707

.712

.726

.735

-740

.746

.752

.760

.768

1.31E+04

1.30E+04

1.30E+04

1.21E+04

1.31E+04

1.30E+04

1.29E+04

1.29E+04

1.20E+04

1.30E+04

1.29E+04

1.28E+04

1.28E+04

1.19E+04

1.29E+04

1.28E+04

1.28E+04

1.16E+04

POINT SERIAL NO. 1008.010 (TIME= 325.50 SEC) LOOP PRESSURE (PE-3) 16.27 MPA FCV TEMPERATURE (TE-FCV-1T) 609.2 K LHP INLET ENTHALPY 1.558E+06 J/KG TEST SECTION: PRESSURE .49 MPA SAT TEMP 423.87 K 13.78 KG/SEC-M**2 MASS FLUX INLET QUALITY .533 INLET ENTHALPY 1.760E+06 J/KG QUENCH FRONT: ELEVATION -. 102 M VELOCITY 0.0000 M/SEC QUALITY .437 NET LHP POWER TO FLUID 533.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA (M) (M) (K) 1.219 1.321 708.9 .643 .501 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M##2 EM3 (K) .013 740.0 1.03E+04 .534 .025 723.3 .535 1.03E+04 .051 697.7 .537 1.03E+04 .076 692.4 .540 1.03E+04 . 102 687.5 542 1 04E+04 .127 690.7 544 1.03E+04 . 152 692.2 -547 1.02E+04 . 305 718.4 .560 1.02E+04 .381 738.2 .567 1.02E+04 .574 .457 751.8 1.03E+04 .581 .533 767.4 1.04E+04 .610 781.3 .588 1.03E+04 -686 794.6 .595 1.03E+04 .762 809.5 .602 1.03E+04 .838 .609 1.03E+04 823.6 .914 834.1 -616 1.03E+04 .991 848.3 .623 1.02E+04 1.067 858.3 .630 1.01E+04 1.143 857.1 .637 1.01£+04 1.194 9.43E+03 860.5 .641 1.255 845.9 1.03E+04 .645 1.295 1.02E+04 861.3 .650 1.372 881.5 -657 1.02E+04 1.448 900.2 .664 1.01E+04 9.39E+03 1.499 9113.2 .668 1.01E+04 1.549 902.4 .673 1.600 914.9 .677 1.00E+04 1.676 937.1 . 684 1.01E+04 1.753 952.1 .691 9.99E+03 9.29E+03 1.803 950.8 . 695 931.0 1.02E+04 1.52 .699 .704 1.905 939.9 1.00E+04

1,981

2.057

962.6

953.0

.711

.718

1.01E+04

1.00E+04

POINT SERIAL NO. 1009.010 (TIME= 320.50 SEC)

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POINT SERIAL NO. 2008-010 (TIME= 325.50 SEC)
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LOOP PRESSURE(PE-3) 16.27 MPA FCV TEMPERATURE (TE-FCV-1T) 609.2 K LUP INLET ENTHALPY 1.558E+06 J/KG TEST SECTION: PRESSURE . 49 MPA SAT TEMP 423.87 K MASS FLUX 13.78 KG/SEC-M**2 INIFI QUALITY .533 INLET ENTHALPY 1.760E+06 J/KG QUENCH FRONT: FLEVATION +. 102 M VELOCITY 0.0000 M/SEC OHAL LTV ,437 NET THP POWER TO FILLID 533.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVALION DZQF TV XE XA (M) (K) (M)

1.524 1.626 781.3 .670 .495

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION FLEVATION TEMP XE HEAT FLUX (M) (K) W/M##2 .013 740.0 .534 1.03E+04 .025 723.3 .535 1.03E+04 -051 697.7 1.03E+04 -537 .540 692.4 .976 1-03E+0h . 102 687.5 .542 1.04E+04 . 127 690.7 .544 1.03E+04 . 152 692.2 -547 1.02E+04 .305 718.4 -560 1.02E+04 .381 738.2 -567 1.02E+04 45.7 751.8 574 1.03E+08 -533 767.4 .581 1.0hE+0h .610 781.3 -588 1.03E+04 794.6 .686 .595 1.03E+04 .762 .602 809.5 1.03E+04 838 823.6 .609 1.03E+04 .914 834.1 .616 1.03E+04 .991 848.3 .623 1.02E+04 1.067 858.3 .630 1.01E+04 .637 1.143 857 1 1.01E+04 1.194 860.5 -641 9.435+03 -645 1.245 845.9 1.03E+0b 1.295 -650 861.3 1.02E+04 1.372 881.5 .657 1.02E+04 1.448 900.2 .664 1.01E+04 .668 1.499 903.2 9.39E+03 .673 1.549 902.4 1.01E+04 1.600 .677 914.9 1.00E+04 1.676 937.1 .684 1.01E+04 1.753 952.1 .691 9.99E+03 -695 1.803 950.8 9.29E+03 1.854 931.0 -699 1.02E+04 1.905 939.9 .704 1.00E+04 1.981 962.6 .711 1.01E+04 2.057 953.0 .718 1.00E+04

LOOP PRESSURE(PE-3)	16.13	MPA
FCV TEMPERATURE (TE-FCV-1T)	608.5	K
LHP INLET ENTHALPY	1.554E+06	J/KG
TEST SECTION:		
PRESSURE	.49	MPA
SAT TEMP	423.87	K
MASS FLUX		KG/SEC-M**2
INLET QUALITY	.533	
	1.761E+06	
QUENCH FRONT:		
ELEVATION	-, 102	м
VELOCITY	0.0000	
QUALITY	.435	
NET LIP POWER TO FLUID	541.4	

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XF XA ELEVATION DZQF (M) (M) (K)

1.219 1.321 676.5 ,625 .499

			ATION INFORMATION
ELEVATION	TEMP	XE.	HEAT FLUX
(M)	(K)		W/M**2
.013	728.8	.534	8.76E+03
.025	708.3	.535	8.75E+03
.051	676.3	.537	8.70E+03
.076	667.7	.539	B.61E+03
. 102	660.5	.541	8.54E+03
. 127	661.6	.543	8.51E+03
. 152	662.2	-545	8.44E+03
. 305	684.8	.556	8.35E+03
. 381	703.0	.562	8.41E+03
.457	714.8	.568	8.46E+03
. 533	728.5	.574	8.478+03
.610	741.4	.579	8.43E+03
.686	753.4	. 585	8.49E+03
. 762	766.5	.591	8.43£+03
. 638	779.6	.597	8.46E+03
.914	789.3	.602	8.53E+03
.991	802.2	.608	8.44E+03
1.067	811.5	.614	8.41E+03
1.143	810.4	.620	8.46E+03
1.194	814.0	.623	7.78E+03
1.245	801.8	.627	8.39E+03
1.295	816.3	.631	8.41E+03
1.372	835.4	.637	8.35E+03
1.448	851.8	. 642	8.37E+03
1.499	854.4	.646	7.76E+03
1.549	854.4	.650	8.40E+03
1.600	866.1	.653	8.36E+03
1.676	886.5	.659	8.33E+03
1.753	900.6	.665	8.30E+03
1.803	899.1	.668	7.63£+03
1.854	880.6	.672	8.40E+03
1.905	890.2	.676	8.37E+03
1.981	913.6	.681	8.32E+03
2.057	907.4	.687	8.21E+03

7.06E+03

3.24E+03

862.0

825.0

1.981

2.057

.657

. 660

1.981

2.057

913.6

907.4

.681

.687

8.32E+03

8.21E+03

			The state of the s				
POINT SERIA	AL NO. 20	09.010 (1	TIME= 320.50 SEC)				(TIME= 300.50 SEC)
LOOP PRESSI	URESPE-31		16.13 MPA	LOOP PRESSU FCV TEMPERA LMP INLET E TEST SECTION PRESSU	RELPE-31		16.19 MPA
FCV TEMPERA	ATURE! TE-F	CV-111	16.13 MPA 608.5 K 1.554E+06 J/KG	FCV TEMPERA	TURELTE-F	CV-111	608.5 K
LHP INLET !	ENTHALPY	1	1.554E+06 J/KG	LHP INLET E	NTHALPY		1.553E+06 J/KG
TEST SECTIO	ON:			TEST SECTION	N:		
PRESSI	URE		.49 MPA	PRESSU	RE		.48 MPA
SAT TE	EMP		423.87 K	SAT TE	MP		423.71 K
MASS I	FLUX		13.35 KG/SEC-M**2	MASS F	LUX		13.98 KG/SEC-M**2
INLET	QUALITY		.533	INLET	QUALITY		.531
I NE.E.T	ENTHALPY		1.761E+06 J/KG	INLET	ENTHALPY		1.755E+06 J/KG
QUENCH FROM	NI:			QUENCH FROM	1;		****
ELEVA	TION		102 M	ELEVAI	ION		102 M
VELOC	IIY		0.0000 M/SEC	AFFOCI	IA		0.0000 M/SEC
QUALT	IY		.435	QUALII	Y		.435
NET EHP PO	MER TO FEE	HD	.49 MPA 423.87 K 13.35 KG/SEC-M**2 .533 1.761E+06 J/KG 102 M 0.0000 M/SEC .435 541.4 W	NET LHP POW	ER TO FLO	110	342.1 W
VAPOR TEMPI	ERATURE ME	ASUREMENT L	GCATION INFORMATION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION INFORMATION
(M)	(M)	(K)	COCATION INFORMATION KE XA	(M)	(M)	(K)	AL AA
		729.0 .6		1.219			
WALL TEMPER	RATURE MEA	SUREMENT LO	DEATION INFORMATION HEAT FLUX W/M**2				
ELEVATION	TEMP	XE	HEAT FLUX	ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		W/M**2 8. 76E + 03 8. 75E + 03 8. 76E + 03 8. 61E + 03 8. 54E + 03 8. 54E + 03 8. 35E + 03 8. 44E + 03 8. 45E + 03 8. 43E + 03 8. 43E + 03 8. 44E + 03 8. 53E + 03 8. 35E + 03 8. 35E + 03 8. 35E + 03 8. 35E + 03 8. 36E + 03 8. 37E + 03	(M)	(K)		M/M**2
.013	728.8	.534	8.76E+03	.013	721.3	.532	7.68E+03
.025	708.3	.535	8.75E+03	.025	698.4	.532	7.68E+03
.051	676.3	.537	8.70E+03	.051	663.0	.534	7.631+03
.076	667.7	.539	8.61E+03	.076	652.3	.536	7.56E+03
. 102	660.5	.541	8.54E+03	. 102	643.7	.537	7.45E+03
. 127	661.6	.543	8.516+03	. 127	643.8	.539	7.48E+03
. 152	662.2	. 545	8.44E+03	. 152	643.5	.541	7.47E+03
.305	684.8	- 556	8.35E+03	. 305	661.2	- 551	7.671.403
.381	703.0	-562	8.411+03	. 381	6/6.7	. 550	7.471.403
.457	739.5	. 208	0.401*03	.457	600.9	.201	7 425403
.533	761.5	570	8 43E403	. 233	710.2	571	7.63E+03 7.45E+03 7.48E+03 7.47E+03 7.47E+03 7.47E+03 7.45E+03 7.45E+03 7.38E+03 7.39E+03 7.32E+03 7.32E+03
.686	753.4	585	8 495+03	506	720.2	5.75	7 396+03
.762	766.5	591	A 43E+03	762	732 h	580	7. 32F+03
.838	779 6	597	8.465+03	838	743 8	.585	7.32E+03
.914	789.3	.602	8.53£+03	.914	751.8	.590	7.29£+03
.991	802.2	-608	8.44[+03	.991	763.8	.595	7.32E+03
1.067	811.5	.614	8.41E+03	1.067	772.0	.600	7.33E+03
1.143	810.4	.620	8.46E+03	1,143	771.0	.605	
1.194	814.0	.623	7.78E+03	1.194	774.7	.608	
1.245	801.8	.627	8.39£+03	1.245	764.6	.611	
1.295	816.3	.631	8.41£+03	1.295	777.4	.614	7.28E+03
1.372	835.4	.637	8.35£+03	1.372	794.3	.619	7.33E+03
1.448	851.8	.642	8.37E+03	1.372 1.448 1.499 1.549 1.600 1.676 1.753 1.803 1.854	808.6	.624	7.33£+03 7.35£+03 6.75£+03 7.32£+03
1.499	854.4	-646	7.761+03	1.499	811.0	-627	6.75E+03
1.549	854.4	.650	8.40E * 03	1.549	811.7	.630	7.32E+03
1.600	866.1	.653	8.36E+03	1.600	822.4	.633	7.28E+03
1.676	886.5	-659	8.33E+03	1.676	840.7	.638	7.24E+03
1.753	900.6	.665	8.30E+03	1.753	852.7	.643	7.29E+03
1.803	899.1	.668	7.631 *03	1.803	851.1	. 646	7.24E+03 7.29E+03 6.60E+03 7.22E+03
1.854	800.6	-012	8.401+03	1.854	833.9	. 649	7.221.403
1.905	890.2	.070	8.3/1:403	1.905	842.7	.652	1.21L+03

2.01E+04

2.03E+04

1.981

2.057

862.0

825.0

.657

.660

POINT SERI	AL NO. 20	10.010 (TIME= 300.50 SEC)	POINT SERIA	AL NO. 10	12.010	(TIME= 310.50 SEC)
LOOP PRESS	URFIPE-31		16.19 MPA 608.5 K 1.553E+06 J/KG	LOOP PRESSI	JRE(PE-3)		16.32 MPA 610.0 K 1.563E+06 J/KG
ECH TEMPER	ATURE I TE-F	CV-111	608 5 K	FCV TEMPERA	ATURE (TE-F	CV-111	610.0 K
THE THEFT	ENTHAL PV		1 553F+06 J/KG	THP INTEL (ENTHAL PY	40.00	1.563E+06 J/KG
TEST SECTI	CHIMET.		1.7236.000 0700	TEST SECTION	ON:		712000.00 0710
1521 25711	ON.		LO MOS	PRESSI	IDE.		AR MPA
PHESS	37101		.40 MIN	SAT 16	MP		627 77 K
SAI I	EMP		463.11 R	MASS	Chilly		10 11 WO / CCC - M+ B2
MASS	FEUX		13.90 KU/SEU-M**2	HASS I	OHAL LTV		19.11 NG/SEC-M2
INLET	QUALITY		.48 MPA 423.71 K 13.98 KG/SEC-M**2 .531 1.755E+06 J/KG	INLET	CHTHALDY		.48 MPA 423.77 K 19.11 KG/SEC-M**2 .556 1.809E+06 J/KG
INLET	ENTHALPY		1./33E*U0 J/NG	ONE WOLL EDGE	ENTHALFT		1.009E *UD J/KG
			200 M	QUENCH FROM	ELOW.		
ELEVA	TION		-, 102 M	METOC	TON		102 M 0.0000 M/SEC 440 891.1 W
AFTOC	TIY		0.0000 M/SEC	VELOR.	111		0.0000 M/SEC
QUALI	18	1000	.435	MEX THE DOW	OFF TO FEE	CK fix	. 940
			102 M 0.0000 M/SEC .435 542.1 W		AEK IN ILL		
VAPOR TEMP	PERATURE ME	ASUREMENT	LOCATION INFORMATION	VAPOR TEMPE	ERATURE ME	ASUREMENT	LOCATION INFORMATION
			XE XA	ELEVATION	DZQF	10	XE XA
(M)	(M)	(K)		(M)	(M)	(K)	
1.524	1.626	702.2 .	628 .493	1.219	1.321	756.4	.720 .540
WALL TEMPE	BATURE HEA	SUREMENT L	OCATION INFORMATION HEAT FLUX W/M**2	WALL TEMPER	RATURE MEA	SUREMENT	LOCATION INFORMATION
ELEVATION	TEMP	XE	HEAT FLUX	ELEVATION	TEMP	XE	HEAT FLUX
(H)	(K)		W/M**2	(M)	(K)		W/M**2
			7.68E+03 7.68E+03 7.63E+03 7.56E+03 7.45E+03 7.48E+03 7.47E+03 7.47E+03 7.47E+03 7.42E+03 7.42E+03 7.38E+03 7.39E+03 7.32E+03				2.15E+04 2.14E+04 2.12E+04 2.11E+04 2.10E+04 2.10E+04 2.09E+04 2.09E+04 2.08E+04 2.08E+04 2.08E+04 2.08E+04 2.08E+04 2.08E+04 2.08E+04 2.08E+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04 2.0FE+04
.013	721.3 698.4 663.0 652.3	.532	7.681.03	.013	752.9	-558	2.15E+04
.025	698.4	.532	7.68£+03	.025	749.0	- 560	2.146+04
.051	663.0	.534	7.631+03	.051	745.2	. 563	2.12E+04
.076	652.3	.536	7.568*03	.076	752.5	-567	2.11E+04
. 102	643.7	.537	7.458*03	. 102	756.7	.570	2.10E+04
.127	643.7 643.8	.539	7.48£+03	. 127	765.8	.574	2.10E+04
. 152	643.5	.541	7.47E+03	. 152	772.5	.511	2.09E+04
. 305	643.5 661.2 676.7 686.9	.551	7.671+03	, 305	813.4	.598	2.10E+04
.381	676.7	.556	1.47E+03	. 381	836.6	.608	2.09E+04
.457	686.9	.561	7.45£+03	.45/	849.8	.619	2.08E+04
. 533	698.9	- 200	7.42E+03	.533	864.6	-629	2.08£+04
.610	710.2	.571	7.381.+03	.610	878.5	. 639	2.08E+04
.686	720.1	.575	7.391+03	.686	891.1	. 649	2.08E+04
		.580	7.30E+03	.762	905.4	.659	2.08E+04
.838	743.8		7.32E+03	.838	919.2	.670	2.07E+04
.914	751.8		7.29E+03	.914	931.3	. 680	2.061+04
.991	763.8		7.32E+03	.991	949.2	.690	2.06E+04
1.067	772.0	.600	7.33E+03	1.067	962.8	.700	2.05E+04
1.143	771.0		7.338+03	1,143	960.6	.710	2.04E+04
1.194	774.7	.608	6.73E+03	1.194	963.4	.717	1.91E+04
1.245	764.6	.611	7.26E+03 7.28E+03	1.245	930.3	. 723	2.07E+04
1.295	777.4	.514	7.28£+03	1.295	945.3	. 730	2.06E+04
1.372	794.3	-619	7.33£+03	1.194 1.245 1.295 1.372 1.448	969.9	.740	2.06E+04 2.05E+04
1.448	808.6	.624	7.35E+03	1.448	993.3	. 750	
1.499	808.6 811.0 811.7 822.4 840.7 852.7 851.1 833.9 842.7	-627	7.26E+03 7.38E+03 7.35E+03 6.75E+03 7.32E+03 7.28E+03 7.29E+03 6.60E+03 7.22E+03 7.22E+03	1.499	930.3 945.3 969.9 993.3 997.0 993.4 1007.4 1034.6 1052.1 1050.2 1020.2	. 757	1.89E+04 2.05E+04 2.04E+04 2.02E+04
1.549	811.7	.630	7.32E+03	1.549	993.4	. 763	2.05E+04
1.600	822.4	-633	7.28E+03	1.600	1007.4	.770	2.048+04
1.676	840.7	.638	7.24E+03	1.676	1034.6	. 780	2.02E+04
1.753	852.7	-643	7.29E+03	1.753	1052.1	. 790	2.02E+04
1.803	851.1	-646	6.60£+03	1.753 1.803 1.854 1.905	1050.2	. 796	2.02E+04 1.88E+04 2.03E+04 2.03E+04
1.854	833.9	.649	7.22E+03	1.854	1020.2	.803	2.03E+04
1.905	842.7	.652	7.21E+03	1.905	1029.8	.809	2.03E+04
1 081	862 0	657	7.06E+03	1.981	1036.1	810	2 01F+0h

1.981

2.057

1036.1

987.3

.819

.829

7.06E+03

3.24E+03

POINT SERIAL NO. 2012.010 (TIME= 310.50 SEC) 16.32 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE(16-FCV-11) 610.0 K LHP INLET ENTHALPY 1.563E+06 J/KG TEST SECTION: . 48 MPA PRESSURE SAT TEMP 423.77 K 19.11 KG/SEC-M**2 MASS FLUX INLET QUALITY -556 1.809E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION -. 102 M 0.0000 M/SEC VELOCITY 440 QUALITY 891.1 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA DZQF IV ELEVATION (M) (K) (M) .760 .535 1.524 1.626 840.7 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX XE ELEVATION TEMP W/M**2 (K) (M) 2.15E+04 752.9 .558 .013 .560 2.14E+04 .025 749.0 .051 2.12E+04 745.2 .563 2.11E+04 .076 752.5 .567 .570 2.10E+04 . 162 756.7 .574 . 127 765.8 2.10E+04 . 152 2.09E+04 .577 772.5 .598 2.10E+0h . 305 813.4 2.09E+04 .608 .381 836.6 .619 2.08E+04 .457 849.8 2.08E+04 -533 864.6 .629 2.08E+04 878.5 .639 .610 2.08E+04 . 549 .686 891.1 .659 2.08E+04 . 762 905.4 .670 2.07E+04 .838 919.2 2.06E+04 .914 931.3 .680 2.06E+04 949.2 .690 .991 .700 2.05E+04 1.067 962.8 .710 2.04E+04 1.143 960.6 .717 1.91E+04 1.194 963.4 .723 2.07E+04 1.245 930.3 .730 2.06E+04 1.295 945.3 .740 969.9 2.05E+04 1.372 .750 1.448 993.3 2.04E+04 997.0 .757 1.89E+04 1.499 2.05E+04 1.549 993.4 .763 .770 2.04E+04 1,600 1007.4 1.676 1034.6 .780 2.02E+04 1.753 1052.1 .790 2.02E+04 1.88£+04 1.803 1050.2 .796 1.854 1020.2 .803 2.03E+04 .809 1,905 1029.8 2.03E+04

.819

.829

2.01E+04

2.03E+04

1036.1

987.3

1.981

2.057

POINT SERIAL NO. 1014.010 (TIME= 299.50 SEC) LOOP PRESSURE(PE-3) 16.21 MPA FCV TEMPERATURE (TE-FCV-1T) 610.8 K LHP INLET ENTHALPY 1.570E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.99 K 19.28 KG/SEC-M**2 MASS FLUX .574 INLET QUALITY INLET ENTHALPY 1.847E+06 J/KG QUENCH FRONT: ELEVATION -.102 M 0.0000 M/SEC VELOCITY QUALITY. .443 NET LHP POWER TO FLUID 1014.8 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1,219 1.321 744.2 .732 .556 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX (M) (K) W/M##2 .576 .013 738.9 2.01E+04 .025 733.3 .577 2.01E+04 .051 728.0 2.01E+04 .581 .076 734.8 .584 2.02E+04 . 102 738.8 .587 2.03E+04 .127 747.9 .590 2.03E+04 . 152 755.1 2.04E+04 .594 - 305 798.5 .614 2.05E+04 .381 822.5 .624 2.05E+04 .457 836.5 . 634 2.05E+04 .533 851.7 -644 2.05E+04 .610 865.3 2.05E+04 -654 .686 877.7 .663 2.05E+04 .762 891.8 .673 2.04E+04 .838 905.2 . 683 2.04E+04 .914 917.5 .693 2.04E+04 .991 935.4 2.04E+04 .703 .713 1.067 949.2 2.03E+04 1.143 947.8 .723 2.03E+04 1.194 950.5 .729 1.89E+04 1.2.5 916.8 .736 2.02E+04 .742 1.295 932.0 2.02E+04 1.372 958.1 .752 2.02E+04 1.448 982.2 .762 2.01E+04 1,499 987.1 .768 1.87E+04 1.549 983.3 -774 2.00E+04 997.2 .781 1,600 2.00E+04 .791 1.676 1024.7 2.00E+04 1.753 1043.1 .800 2.00E+04 1.803 1041.6 .807 1.85E+04 1.854 1011.7 .813 2.01E+04 .819 1.905 1022.5 2.00E+04 .829

1.981

2.057

1032.8

984.1

.839

2.00E+04

2.02E+04

DOLLEY CEDA					
LOTHE SERE	AL NO. 20	114.010	(TIME	= 299.	.50 SEC)
LOOP PRESS	URE (PE-3)			16.21	MPA
FCV TEMPER		CV-1T)		610.8	
LHP INLET			1.57	0E+06	
TEST SECTI					27 112
PRESS				.49	MPA
SAT T	COLUMN TO SERVICE STATE OF THE PERSON SERVICE STATE SERVICE STATE SERVICE STATE OF THE PERSON SERVICE STATE SERVICE STATE SERVICE STATE SERVIC		4	23.99	
MASS					KG/SEC-M**
	QUALITY			.574	
INLET	ENTHALPY		1.84	7E+06	J/KG
QUENCH FRO	NI:				
ELEVA	TION			102	M
VELOC	HY		0	.0000	M/SEC
QUALI	IY			. 443	
NET LHP PO	WER TO FLU	110	. 1	014.8	W
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCA	TION	INFORMATION
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
1.524	1.626	835.3	.771	.546	
WALL TEMPE	RATURE ME	ASUREMENT	LOCAL	10N 11	NEORMATION
ELEVATION	TEMP	XE			FLUX
(M)	(K)			W/M	**5
.013	738.9	.576	5	2.01	F+0h
.025	733.3			2.01	
.051	728.0			2.01	
.076	734.8	.584		2.02	
. 102	738.8	.587		2.03	
.127	747.9			2.03	
. 152	755.1	. 591	4	2.04	E+04
. 305	798.5	.614		2.051	E+04
. 381	822.5	. 621	4	2.05	E+04
- 301	836.5	. 631	1	5 051	E+04
.457				6 - 12 21	
	851.7	.641	4	2.05	E+04
.457 .533 .610	851.7 865.3	.654		2.05	E+04
.457 .533 .610 .686	851.7 865.3 877.7	.654	3	2.05 2.05 2.05	E+04 E+04
.457 .533 .610 .686 .762	851.7 865.3 877.7 891.8	.641 .651 .66	3 3	2.05 2.05 2.05 2.05	E+04 E+04 E+04
.457 .533 .610 .686 .762 .838	851.7 865.3 877.7 891.8 905.2	.644 .654 .66 .67	3 3 3	2.05 2.05 2.05 2.04 2.04	E+04 E+04 E+04 E+04
.457 .533 .610 .686 .762 .838	851.7 865.3 877.7 891.8 905.2 917.5	.641 .654 .66 .67 .68	3 3 3 3	2.050 2.050 2.050 2.040 2.040 2.040	E+04 E+04 E+04 E+04
.457 .533 .610 .686 .762 .838 .914	851.7 865.3 877.7 891.8 905.2 917.5 935.4	.641 .651 .66 .67 .68 .69	3 3 3 3 3	2.050 2.050 2.050 2.040 2.040 2.040 2.040	E+04 E+04 E+04 E+04 E+04 E+04
.457 .533 .610 .686 .762 .838 .914 .991	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2	.641 .651 .66 .67 .68 .69 .70	3 3 3 3 3 3 3 3	2.051 2.051 2.051 2.041 2.041 2.041 2.041 2.041	E+04 E+04 E+04 E+04 E+04 E+04
.457 .533 .610 .686 .762 .838 .914 1.067	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8	.644 .654 .66 .67 .68 .69 .70	3 3 3 3 3 3 3	2.05 2.05 2.05 2.04 2.04 2.04 2.04 2.03 2.03	E+04 E+04 E+04 E+04 E+04 E+04 E+04
.457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5	.644 .654 .665 .677 .688 .699 .700 .711 .722	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2.05 2.05 2.05 2.04 2.04 2.04 2.04 2.03 2.03 1.89	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8	.644 .654 .666 .677 .688 .699 .700 .711 .722 .724	3 3 3 3 3 3 3 3 3 3	2.05 2.05 2.04 2.04 2.04 2.04 2.03 2.03 1.89 2.02	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0	.644 .654 .666 .67. .68 .69 .70 .711 .72 .720 .730	3 3 3 3 3 3 3 3 3 3 3 6 6	2.05i 2.05i 2.04i 2.04i 2.04i 2.03i 2.03i 1.89 2.02i 2.02i	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295 1.372	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1	.644 .654 .666 .677 .688 .699 .700 .711 .722 .734 .744	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2.05i 2.05i 2.04i 2.04i 2.04i 2.03i 2.03i 1.89 2.02 2.02i 2.02i	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.245 1.245 1.295 1.372 1.448	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.8 950.5 916.8 932.0 958.2	.644 .651 .66 .67 .68 .69 .70 .71 .72 .72 .73 .74 .75 .75	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2.05i 2.05i 2.04i 2.04i 2.04i 2.03i 2.03i 1.89i 2.02i 2.02i 2.02i 2.02i 2.02i	E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295 1.372 1.448 1.499	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1	.644 .651 .666 .677 .688 .699 .700 .711 .722 .733 .744 .755 .766	333333333333333333333333333333333333333	2.05 2.05 2.04 2.04 2.04 2.03 2.03 1.89 2.02 2.02 2.02 2.02 2.02	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295 1.372 1.448 1.499 1.549	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 983.3	.644 .651 .66 .67 .68 .69 .70 .71 .72 .72 .73 .74 .75 .76	333333333333333333333333333333333333333	2.05 2.05 2.04 2.04 2.04 2.03 2.03 1.89 2.02 2.02 2.02 2.02 2.02 2.01 1.87 2.02	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295 1.372 1.448 1.499 1.549 1.600	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 983.3 997.2	.644 .651 .66 .67 .68 .69 .70 .71 .72 .72 .73 .74 .75 .76 .76	333333333333333333333333333333333333333	2.05 2.05 2.04 2.04 2.04 2.03 2.03 1.89 2.02 2.02 2.02 2.02 2.02 2.02 2.02 2.0	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .991 1.067 1.143 1.245 1.295 1.372 1.448 1.499 1.549 1.600 1.676	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 983.3 997.2	.644 .651 .666 .677 .688 .699 .700 .711 .722 .733 .744 .755 .766 .777 .788	333333333333333333333333333333333333333	2.05 2.05 2.05 2.04 2.04 2.04 2.03 1.89 2.03 1.89 2.02 2.02 2.02 2.02 2.02 2.02 2.03	E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4 E+O4
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295 1.372 1.448 1.499 1.549 1.600 1.676 1.753	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.5 932.0 958.1 982.2 987.1 983.3 997.2	.644 .654 .665 .67. .68. .69. .70. .71. .72. .72. .73. .74. .75. .76. .76. .77. .78. .79. .79. .79. .79. .79. .79	333333333333333333333333333333333333333	2.05i 2.05i 2.04i 2.04i 2.03i 1.89i 2.02; 2.02; 2.02; 2.02; 2.00; 2.00; 2.00; 2.00; 2.00;	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.194 1.245 1.295 1.372 1.448 1.499 1.549 1.600 1.676 1.753 1.803	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 983.3 997.2 1024.7 1043.1	.644 .654 .666 .67. .68 .69. .70 .711 .72 .730 .744 .753 .766 .761 .771 .78	333333333333333333333333333333333333333	2.05 2.05 2.04 2.04 2.04 2.03 1.89 2.02 2.02 2.02 2.02 2.02 2.02 2.00 2.00 2.00 2.00 2.00	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.245 1.295 1.372 1.448 1.499 1.549 1.600 1.676 1.753 1.803 1.854	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 1983.3 997.2 1024.7 1041.6	.644 .654 .666 .677 .688 .699 .700 .711 .722 .736 .744 .753 .766 .766 .777 .788 .799 .800 .800	333333333333333333333333333333333333333	2.05i 2.05i 2.04i 2.04i 2.04i 2.03i 1.89i 2.02i 2.02i 2.02i 2.02i 2.02i 2.02i 2.00i 1.87i 2.00i 2.00i 2.00i	E+04 E+04
. 457 .533 .610 .686 .762 .838 .991 1.067 1.143 1.245 1.295 1.372 1.448 1.499 1.549 1.600 1.676 1.753 1.803 1.803	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 983.3 997.2 1024.7 1041.6 1011.7	.644 .651 .666 .677 .688 .699 .700 .711 .722 .733 .744 .755 .766 .777 .788 .799 .800 .800 .811	33333333333333333333333333333333333333	2.05i 2.05i 2.04i 2.04i 2.03i 2.03i 2.03i 2.02i 2.02i 2.02i 2.02i 2.00i 2.00i 2.00i 2.00i 1.85i 2.00i	E+04 E+04
. 457 .533 .610 .686 .762 .838 .914 .991 1.067 1.143 1.245 1.295 1.295 1.372 1.448 1.499 1.549 1.600 1.676 1.753 1.803 1.854	851.7 865.3 877.7 891.8 905.2 917.5 935.4 949.2 947.8 950.5 916.8 932.0 958.1 982.2 987.1 1983.3 997.2 1024.7 1041.6	.644 .654 .667 .68. .69. .70. .71. .72. .72. .73. .74; .75. .76. .76. .77. .78. .79. .80. .80. .81. .81.	43333333333333333333333333333333333333	2.05i 2.05i 2.04i 2.04i 2.04i 2.03i 1.89i 2.02i 2.02i 2.02i 2.02i 2.02i 2.02i 2.00i 1.87i 2.00i 2.00i 2.00i	E+04 E+04

COOP PRESSURE (PE-3) 16.30 MPA 610.1 K 1.564E+06 J/KG	POINT SERIA	AL NO. 1	015.010	(TIME=	249	.50 SEC)
TEST SECTION:				16	6.30	MPA
TEST SECTION:	FCV TEMPERA	ATURE (TE-	FCV-11)	6	10.1	K
PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET QUALITY INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LIP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (M) (M) (K) 1.219 1.321 722.7 709 547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (K) 1.219 1.321 722.7 709 547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (K) 1.37 5564 1.83E+04 0.055 729.3 5666 1.82E+04 0.051 718.7 569 1.81E+04 0.076 721.6 572 1.80E+04 1.102 723.3 575 1.80E+04 1.102 723.3 575 1.80E+04 1.102 723.3 575 1.80E+04 1.102 723.3 575 1.80E+04 1.179E+04 1.181 1.181 1.191 1.191	LHP INLET !	ENTHALPY		1.564	E+06	J/KG
SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (M) (K) 1.219 1.321 722.7 709 547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (K) 1.219 1.321 722.7 709 547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (K) (K) 0.0000 M/SEC 440 NFORMATION INFORMATION IN					110	MPA
MASS FLUX 17.86 KG/SEC-M**2 INLET QUALITY 1.822E+06				62		
INLET QUALITY						
TINLET ENTHALPY						NO/ SEC-FI
QUENCH FRONT: ELEVATION				1 8221		LING
ELEVATION VELOCITY QUALITY				1.0221		37 80
VELOCITY QUALITY NET LHP POWER 10 FLUID 900.5 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA (M) (M) (K) 1.219 1.321 722.7 .709 .547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M**2 .013 737.5 .564 1.83E+04 .025 729.3 .566 1.82E+04 .051 718.7 .569 1.81E+04 .076 721.6 .572 1.80E+04 .127 730.6 .572 1.80E+04 .127 730.6 .572 1.80E+04 .127 730.6 .578 1.80E+04 .127 730.6 .578 1.80E+04 .127 730.6 .578 1.80E+04 .1552 735.8 .581 1.79E+04 .381 794.2 .608 1.79E+04 .381 794.2 .608 1.79E+04 .533 820.9 .627 1.79E+04 .533 820.9 .627 1.79E+04 .533 820.9 .627 1.79E+04 .538 845.8 .645 1.79E+04 .538 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .762 859.7 .664 1					102	M
NET LHP POWER TO FLUID 900.5 W						
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION						
ELEVATION (M) (K) 1.219 1.321 722.7 709 547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (K) (M) (N) (N) (N) (N) (N) (N) (N			UID			
ELEVATION (M) (K) 1.219 1.321 722.7 709 547 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (K) (M) (N) (N) (N) (N) (N) (N) (N	VAPOR TEMPI	PATURE M	FASUREMENT	LOCAT	ON	INFORMATION
Mall Temperature Measurement Location information Heat flux			IV	XE	XA	1111 2011111111111
1.219			750000	N.C.	***	
MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (K) W/M**2 .013	(m)	(11)	141			
ELEVATION (M) (K) XE HEAT FLUX W/M**2 .013	1.219	1.321	722.7	.709	547	
ELEVATION (M) (K) XE HEAT FLUX W/M**2 .013	WALL TEMPER	RATURE ME	ASUREMENT	LOCATIO	ON II	NEORMATION
(M) (K) W/M**2 .013					HEAT	FLUX
.025		(K)			W/M	**2
.025						
.051 718.7 .569 1.81E+04 .076 721.6 .572 1.80E+04 .102 723.3 .575 1.80E+04 .127 730.6 .578 1.80E+04 .152 735.8 .581 1.79E+04 .305 773.0 .599 1.79E+04 .381 794.2 .608 1.79E+04 .457 806.7 .618 1.79E+04 .533 820.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .991 901.3 .682 1.78E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.245 .886.3 .712 1.78E+04 1.245 .886.3 .712 1.78E+04 1.	.013	737.5	.564		1.83	E+04
.076 721.6 .572 1.80E+04 .102 723.3 .575 1.80E+04 .127 730.6 .578 1.80E+04 .152 735.8 .581 1.79E+04 .305 773.0 .599 1.79E+04 .381 794.2 .608 1.79E+04 .457 .806.7 .618 1.79E+04 .533 .820.9 .627 1.79E+04 .610 .834.1 .636 1.79E+04 .686 .845.8 .645 1.79E+04 .762 .859.7 .654 1.79E+04 .838 .872.8 .663 1.79E+04 .914 .884.2 .673 1.79E+04 .991 .901.3 .682 1.78E+04 .1067 .913.9 .691 1.78E+04 .1067 .913.9 .691 1.78E+04 .1245 .886.3 .712 1.78E+04 .1245 .886.3 .712 1.78E+04	.025	729.3	.566		1.82	E+04
102 723.3 575 1.80E+04 127 730.6 578 1.80E+04 152 735.8 581 1.79E+04 305 773.0 599 1.79E+04 381 794.2 608 1.79E+04 457 806.7 618 1.79E+04 457 806.7 618 1.79E+04 610 834.1 636 1.79E+04 686 845.8 645 1.79E+04 686 845.8 645 1.79E+04 762 859.7 654 1.79E+04 838 872.8 663 1.79E+04 914 884.2 673 1.79E+04 991 901.3 682 1.78E+04 991 901.3 682 1.78E+04 1.143 911.7 700 1.78E+04 1.143 911.7 700 1.78E+04 1.245 886.3 712 1.78E+04 1.295 900.5 718 1.79E+04 1.372 925.0 727 1.78E+04 1.499 951.6 742 1.76E+04 1.499 951.6 742 1.64E+04 1.600 961.2 754 1.76E+04 1.676 986.7 763 1.75E+04 1.600 961.2 754 1.76E+04 1.676 986.7 763 1.75E+04 1.676 986.7 772 1.78E+04 1.676 986.7 772 1.76E+04 1.676 986.7 772 1.76E+04 1.676 986.7 763 1.75E+04 1.676 986.7 772 1.76E+04 1.676 986.7 772 1.76E+04	.051	718.7	.569			
127 730.6 .578 1.80E+04 152 735.8 .581 1.79E+04 305 773.0 .599 1.79E+04 381 794.2 .608 1.79E+04 457 806.7 .618 1.79E+04 .533 820.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.143 .911.7 .700 1.78E+04 1.245 886.3 .712 1.78E+04 1.295 .900.5 .718 1.79E+04 1.372 .925.0 .727 1.78E+04 1.499 .951.6 .742 1.64E+04 1.549 .948.1 .748 1.76E+04 1.600 .961.2	.076	721.6				
152 735.8 .581 1.79E+04 305 773.0 .599 1.79E+04 381 794.2 .608 1.79E+04 457 806.7 .618 1.79E+04 .533 820.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.049 915.0 .706 1.65E+04 1.245 886.3 .712 1.78E+04 1.295 900.5 .718 1.79E+04 1.372 925.0 .727 1.78E+04 1.499 951.6 .742 1.64E+04 1.549 948.1 .748 1.76E+04 1.600 961.2 .754 1.75E+04 1.755 1004.2	. 102	723.3				
.305 773.0 .599 1.79E+04 .381 794.2 .608 1.79E+04 .457 806.7 .618 1.79E+04 .533 520.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.143 911.7 .700 1.78E+04 1.245 886.3 .712 1.78E+04 1.295 900.5 .718 1.79E+04 1.372 925.0 .727 1.78E+04 1.498 .947.3 .736 1.77E+04 1.499 .951.6 .742 1.64E+04 1.549 .948.1 .748 1.76E+04 1.549 .948.1 .748 1.76E+04 1.676 .986.						
.381 794.2 .608 1.79E+04 .457 806.7 .618 1.79E+04 .533 820.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.143 911.7 700 1.78E+04 1.245 886.3 .712 1.78E+04 1.295 900.5 .718 1.79E+04 1.372 925.0 .727 1.78E+04 1.499 951.6 .742 1.64E+04 1.549 948.1 .748 1.76E+04 1.549 948.1 .748 1.76E+04 1.676 986.7 .763 1.75E+04 1.676 986.7 .763 1.75E+04 1.755 1004.2 <td></td> <td>735.8</td> <td></td> <td></td> <td></td> <td></td>		735.8				
.457 806.7 .618 1.79E+04 .533 820.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.143 .911.7 .700 1.78E+04 1.245 886.3 .712 1.78E+04 1.295 .900.5 .718 1.79E+04 1.372 .925.0 .727 1.78E+04 1.499 .951.6 .742 1.74E+04 1.549 .948.1 .748 1.76E+04 1.549 .948.1 .748 1.76E+04 1.549 .948.1 .748 1.76E+04 1.600 .961.2 .754 1.75E+04						
.533 820.9 .627 1.79E+04 .610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.194 .915.0 .706 1.65E+04 1.245 886.3 .712 1.78E+04 1.295 .900.5 .718 1.79E+04 1.372 .925.0 .727 1.78E+04 1.499 .951.6 .742 1.64E+04 1.549 .948.1 .748 1.76E+04 1.549 .948.1 .748 1.76E+04 1.676 .986.7 .763 1.75E+04 1.753 .1004.2 .772 1.75E+04 1.803 .1002.3 .777 1.62E+04 <t< td=""><td>. 381</td><td></td><td></td><td></td><td></td><td></td></t<>	. 381					
.610 834.1 .636 1.79E+04 .686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 .1067 913.9 .691 1.78E+04 1.143 911.7 .700 1.78E+04 1.194 915.0 .706 1.65E+04 1.245 886.3 .712 1.78E+04 1.295 900.5 .718 1.79E+04 1.372 925.0 .727 1.78E+04 1.372 925.0 .727 1.78E+04 1.498 947.3 .736 1.77E+04 1.499 951.6 .742 1.66E+04 1.549 948.1 .748 1.76E+04 1.600 961.2 .754 1.76E+04 1.676 986.7 .763 1.75E+04 1.676 986.7 .763 1.75E+04 1.676 986.7 .763 1.75E+04 1.676 986.7 .763 1.75E+04 1.803 1002.3 .777 1.62E+04 1.803 1002.3 .777 1.62E+04 1.804 973.2 .783 1.76E+04 1.805 984.0 .789 1.75E+04						
.686 845.8 .645 1.79E+04 .762 859.7 .654 1.79E+04 .838 872.8 .663 1.79E+04 .914 884.2 .673 1.79E+04 .991 901.3 .682 1.78E+04 1.067 913.9 .691 1.78E+04 1.143 911.7 .700 1.78E+04 1.194 915.0 .706 1.65E+04 1.245 886.3 .712 1.78E+04 1.295 900.5 .718 1.79E+04 1.372 925.0 .727 1.78E+04 1.498 947.3 .736 1.77E+04 1.499 951.6 .742 1.64E+04 1.549 948.1 .748 1.76E+04 1.549 948.1 .748 1.76E+04 1.600 961.2 .754 1.76E+04 1.676 986.7 .763 1.75E+04 1.753 1004.2 .772 1.75E+04 1.803 1002.3 .777 1.62E+04 1.804 973.2 .783 1.75E+04 1.805 984.0 .789 1.75E+04 1.905 984.0 .789 1.75E+04						
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1.981 1006.5 .798 1.75E+04						
2.057 956.4 .807 1.17E+04					3 7 0 0 5	
	2.057	956.4	.807		1.11	E+04

1.905

1.981

2.057

984.0

1006.5

956.4

.789

.798

.807

1.75E+04

1.75E+04

1.77E+04

POINT SERIAL NO. 2015.010 (TIME= 249.50 SEC) 16.30 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 610.1 K LHP INLET ENTHALPY 1.564E+06 J/KG TEST SECTION: .49 MPA PRESSURE 423.87 K SAT TEMP 17.86 KG/SEC-M**2 MASS FLUX INLET QUALITY .562 1.822E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION -, 102 M VELOCITY 0.0000 M/SEC .440 QUALITY 900.5 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TV XE XA DZQF (M) (K) (M) 1.524 1.626 806.3 .745 .539 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M##2 (K) (M) .013 737.5 .564 1.83E+04 .566 1.82E+04 .025 729.3 .569 1.81E+04 .051 718.7 721.6 1.80E+04 .572 .076 . 102 723.3 .575 1.80E+04 . 127 730.6 .578 1.80E+04 735.8 .581 1. 79E+04 . 152 773.0 .599 1.79E+04 . 305 .381 794.2 .608 1.79E+04 1.79E+04 .457 806.7 .618 1.79E+04 820.9 .627 .533 834.1 .636 1.79E+04 .610 1.79E+04 .686 845.8 .645 859.7 .654 1.79E+04 .762 .838 872.8 .663 1.79E+04 1.79E+04 884.2 .673 .914 .682 1.78E+04 901.3 .991 .691 1.78E+04 1.067 913.9 .700 1.143 911.7 1.78E+04 .706 1.194 915.0 1.65E+04 .712 1.78E+04 1.245 886.3 900.5 .718 1.79E+04 1.295 .727 1.78E+04 1.372 925.0 .736 1.448 947.3 1.77E+04 1.499 951.6 .742 1.64E+04 .748 1.76E+04 1.549 948.1 . 754 961.2 1.76E+04 1.600 .763 1.75E+04 1.676 986.7 .772 1.753 1004.2 1.75E+04 1002.3 .777 1.62E+04 1.803 973.2 . 783 1.76E+04 1.854

POINT SERIAL NO. 1016.010 (TIME= 209.50 SEC) 16.25 MPA LOOP PRESSURE(PE-3) 609.9 K FCV TEMPERATURE (TE-FCV-1T) 1.563E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.95 K SAT TEMP 18.30 KG/SEC-M**2 MASS FLUX INLET QUALITY .576 1.851E+06 J/KG INLET ENTHALPY QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY .439 QUALITY NET LIP POWER TO FLUID 1006.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K) (M) .697 .554 1.321 681.4 1.219 WALL TEMPERATURE ME JUREMENT LOCATION INFORMATION XE HEAT FLUX ELEVATION TEMP W/M##2 (K) (M) 718.1 .577 1.52E+04 .013 .578 1.52E+04 .025 705.0 1.51E+04 .051 687.0 .581 1.51E+04 687.1 .583 .076 .586 1.50E+04 . 102 686.6 691.7 .589 1.50E+04 .127 .591 1.49E+04 .152 695.7 . 305 1.48E+04 728.1 .606 .381 .614 1.48F+04 746.9 .622 1.48E+04 758.3 .457 771.5 .629 1.48E+04 .533 .610 783.5 .637 1.48E+04 795.0 . 644 1.48E+04 . 686 .652 1.48E+04 .762 808.1 821.3 .659 1.49E+04 .838 .667 .914 832.2 1,49E+04 .991 847.2 .675 1.48E+04 858.9 .682 1.48E+04 1.067 .690 1.49E+04 1.143 858.5 .695 1.194 861.6 1.37E+04 1.245 836.7 .699 1.49E+04 1.295 849.7 .705 1.49E+04 872.8 .712 1.49E+04 1.372 .720 1.49E+04 1.448 892.8 896.8 .725 1.38E+04 1,499 .730 1.549 893.4 1.49E+04 1.600 905.9 .735 1.48E+04 1.676 929.8 .742 1.47E+04 .750 946.5 1.47E+04 1.753 944.3 .755 1.36E+04 1.803 .759 1.854 917.8 1.48E+04 1.905 928.6 .764 1.48E+04 .772 1.47E+04

1.981

2.057

959.3

930.1

.779

1.47E+04

PO:NT SERIAL NO. 2016.010 (TIME= 209.50 SEC)

LOOP PRESSURE(PE-3) 16.25 MPA FCV TEMPERATURE (TE-FCV-11) 609.9 K 1.563E+06 J/KG THP INTET ENTHALPY TEST SECTION: PRESSURE .49 MPA SAT TEMP 423.95 K 18.30 KG/SEC-M**2 MASS FLUX INLET QUALITY .576 1.851E+06 J/KG QUENCH FRONT: ELEVATION -. 102 M 0.0000 M/SEC VELOCITY . 439 QUALITY NET LHP POWER TO FLUID 1006.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF IV (M) (M) (K)

1.524 1.626 755.4 .727 .547

WALL TEMPE	RATURE MEASU	REMENT LOC	ATION INFORMATION
ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		M/W**5
.013	718.1	.577	1.52E+04
.025	705.0	.578	1.52E+04
.051	687.0	.581	1.51E+04
.076	687.1	.583	1.51E+04
. 102	686.6	.586	1.50E+04
. 127	691.7	.589	1.50E+04
. 152	695.7	.591	1.49E+04
. 305	728.1	.606	1.48E+04
. 381	746.9	.614	1.48E+04
.457	758.3	.622	1.48E+04
.533	771.5	.629	1.48E+04
.610	783.5	.637	1.48E+04
.686	795.0	.644	1.48E+04
.762	808.1	.652	1.48E+64
.838	821.3	.659	1.49E+04
.914	832.2	.667	1.49E+04
.991	847.2	.675	1.48E+04
1.067	858.9	.682	1.48E+04
1.143	858.5	.690	1.49E+04
1.194	861.6	.695	1.37E+04
1.245	836.7	.699	1.49E+04
1.295	849.7	. 705	1.49E+04
1.372	872.8	.712	1.49E+04
1.448	892.8	.720	1.49E+04
1.499	896.8	. 725	1.38E+04
1.549	893.4	. 730	1.49E+04
1.600	905.9	. 735	1.48E+04
1.676	929.8	.742	1.47E+04
1.753	946.5	.750	1.47E+04
1.803	944.3	. 755	1.36E+04
1.854	917.8	.759	1.48E+04
1.905	928.6	.764	1.48E+04
1.981	959.3	.772	1.47E+04
2.057	930.1	.779	1.47E+04

PGINT	SERIAL	NO.	1017.010	(TIME=	162.50	SEC)

LOOP PRESSURE(PE-3) 16.16 MPA FCV TEMPERATURE (TE-FCV-1T) 609.8 K THP INLET ENTHALPY 1.563E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.88 K MASS FLUX 17.66 KG/SEC-M**2 INLET QUALITY .537 INLET ENTHALPY. 1.769E+06 J/KG QUENCH FRONT: ELEVATION -. 102 M VELOCITY 0.0000 M/SEC .439 QUALITY NET LHP POWER TO FLUID 708.4 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA (M) (M) (K)

1.219 1.321 662.6 .632 .512

ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		M/W**5
.013	711.4	.538	9.99E+03
. 025	692.6	.539	1.04E+04
.051	666.9	.540	1.09E+04
.076	663.2	.542	1.11E+04
. 102	660.3	.544	1.12E+04
. 127	664.0	.546	1.13E+04
. 152	667.1	.548	1.13E+04
. 305	695.3	.560	1.15E+04
. 381	712.0	.566	1.15E+04
.457	722.2	.572	1.16E+04
.533	734.1	.578	1.16E+04
.610	745.1	.584	1.16E+04
.686	755.7	.590	1.16E+04
.762	767.9	.596	1.16E+04
.838	780.7	.602	1.16E+04
.914	790.3	.608	1.16E+04
.991	804.1	.614	1.16E+04
1.067	814.8	.620	1.16E+04
1.143	814.9	.626	1.17E+04
1.194	817.8	.630	1.09E+04
1.245	795.6	.634	1.15E+04
1.295	808.3	.638	1.15E+04
1.372	830.0	. 644	1.16E+04
1.448	848.0	.650	1.16E+04
1.499	851.2	.654	1.08E+04
1.549	848.0	.657	1.17E+04
1.600	860.1	.661	1.17E+04
1.676	882.5	.668	1.17E+04
1.753	898.0	.674	1.17E+04
1.803	895.5	.677	1.09E+04
1.854	871.1	.681	1.18E+04
1.905	882.0	.685	1.18E+04
1.981	909.5	.692	1.17E+04
2.057	903.3	.698	1.18E+04

INEL POST-CHE EXPERIMENT NO. 17 POINT SERIAL NO. 2017.010 (TIME= 162.50 SEC)

16.16 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 609.8 K 1.563E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.88 K SAT TEMP 17.66 KG/SEC-M**2 MASS FLUX INLET QUALITY .537 INLET ENTHALPY 1.769E+06 J/KG QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY QUALITY . 439 NET LHP POWER TO FLUID 708.4 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZGF (M) (M) (K)

1.626 721.2 .655 .506 1.524

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX ELEVATION TEMP XE W/M**2 (M) (K) 9.998+03 .013 .538 1.04E+04 .539 .025 692.6 1.09E+04 .051 666.9 .540 .542 1.11E+04 663.2 .076 1.12E+04 .544 .102 660.3 .127 1.13E+04 664.0 .546 1.13E+04 .548 . 152 667.1 .560 1.15E+04 695.3 . 305 1.15E+04 . 381 712.0 .566 .572 1.16E+04 .457 722.2 1.16E+04 .533 734.1 .578 745.1 .584 1.16E+04 .610 .590 1.16E+04 .686 755.7 .762 767.9 .596 1.16E+04 .602 1.16E+04 .838 780.7 .914 790.3 .608 1.16E+04 .614 1.16E+04 .991 804.1 814.8 .620 1.16E+04 1.067 1.17E+04 814.9 .626 1.143 1.194 817.8 .630 1.09E+04 .634 1.15E+04 1.245 795.6 1.295 808.3 .638 1.15E+04 1.16E+04 1.372 830.0 . 644 1.448 848.0 .650 1.16E+04 1.08E+04 1,499 851.2 .654 1.549 848.0 .657 1.17E+04 1.17E+04 1.600 860.1 .661 882.5 .668 1.17E+04 1.676 .674 1.17E+04 1.753 898.0 895.5 .677 1.09E+04 1.803 .681 1.18E+04 1.854 871.1 882.0 .685 1.18E+04 1.905 909.5 .692 1.17E+04 1.981 2.057 903.3 .698 1.18E+04

INEL POST-CHE EXPERIMENT NO. 18

. 560

POINT SERIAL NO. 1018.010 (TIME= 199.50 SEC) LOOP PRESSURE(PE-3) 16.18 MPA FCV TEMPERATURE (TE-FCY-1T)

610.2 K 1.565E+06 J/KG LIP INLET ENTHALPY TEST SECTION: PRESSURE . 48 MPA SAT TEMP 423.70 K MASS FLUX 17.38 KG/SEC-M**2 INLET QUALITY

INLET ENTHALPY 1.817E+06 J/KG QUENCH FRONT: ELEVATION -, 102 M VELOCITY 0.0000 M/SEC QUALITY . 441 NET LHP POWER TO FLUID 859.8 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.219 1.321 628.9 .642 .534

WALL TEMPER ELEVATION (M)	ATURE MEASU TEMP (K)	REMENT LOC XE	ATION INFORMATION HEAT FLUX W/M**2
4	****		
.013	696.9	.561	1.03E+04
.025	676.9	.562	1.92£+04
.051	646.6	.563	1.615+04
.076	640.5	.565	1.00E+04
. 102	635.5	.567	1.00E+04
. 127	637.9	.569	1.00E+04
. 152	639.9	.570	9.99E+03
. 305	663.7	.581	9.95E+03
. 381	678.1	.586	9.941+03
.457	686.9	.591	9.948+03
.533	697.5	.596	9.91E+03
.610	707.3	.601	9.90E+03
.686	716.9	.607	9.89E+03
.762	728.1	.612	9.91E+03
.838	739.8	.617	9.92E+03
.914	748.5	.622	9.90£+03
.991	760.5	.627	9.90E+03
1.067	770.2	.632	9.84E+03
1.143	770.2	.638	9.92£+03
1.194	773.7	.641	9.10E+03
1.245	754.3	. 644	9.97E+03
1.295	765.8	. 648	9.97E+03
1.372	786.4	.653	9.96E+03
1.448	802.4	.658	9.97E+03
1.499	805.2	.661	9.19E+03
1.549	802.3	.665	9.94E+03
1.600	814.1	-668	9.95E+03
1.676	835.2	.673	9.90£+03
1.753	849.5	.678	9.91E+03
1.803	847.2	.682	9.14E+03
1.854	825.2	.685	1.01E+04
1.905	836.2	.689	1.00E+04
1.981	863.5	.694	9.99E+03
2.057	861.8	.699	1.01E+04

POINT SERIAL NO. 2018.010 (TIME= 199.50 SEC)

LOOP PRESSURE (PE-3) 16.18 MPA FCV TEMPERATURE (TE-FCV-1T) 610.2 K LHP INLET ENTHALPY 1.565E+06 J/KG TEST SECTION: PRESSURE .48 MPA SAT TEMP 423.70 K MASS FLUX 17.38 KG/SEC-M**2 INLET QUALITY .560 1.817E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION -. 102 M VELOCITY 0.0000 M/SEC QUALITY . 441 NET LHP POWER TO FLUID 859.8 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.524 1.626 681.0 .663 .528

ELEVATION	TEMP	KEMENT LOC	ATION INFORMATION HEAT FLUX
(M)	(K)	VE	W/M**2
(11)	101		H/H2
.013	696.9	.561	1.03E+04
.025	676.9	.562	1.02E+04
.051	646.6	. 563	1.01E+04
.076	640.5	.565	1,00E+04
. 102	635.5	.567	1.00E+04
. 127	637.9	.569	1.60E+04
. 152	639.9	.570	9.99E+03
. 305	663.7	.581	9.95E+03
. 381	678.1	.586	9.94E+03
.457	686.9	.591	9.94E+03
.533	697.5	.596	9.91E+03
.610	707.3	.601	9.90E+03
.686	716.9	.607	9.89£+03
.762	728.1	.612	9.91E+03
.838	739.8	.617	9.92E+03
.914	748.5	.622	9.90E+03
.991	760.5	.627	9.90E+03
1.067	770.2	.632	9.84E+03
1.143	770.2	.638	9.92E+03
1.194	773.7	.641	9.10E+03
1.245	754.3	.644	9.97E+03
1.295	765.8	. 648	9.97E+03
1.372	786.4	.653	9.96E+03
1.448	802.4	.658	9.97E+03
1.499	805.2	.661	9.19E+03
1.549	802.3	.665	9.94E+03
1.600	814.1	. 068	9.95E+03
1.676	835.2	.673	9.90E+03
1.753	849.5	.678	9.91E+03
1.803	847.2	.682	9,14E+03
1.854	825.2	.685	1.01E+04
1.905	836.2	.689	1.00E+04
1.981	863.5	. 694	9.99E+03
2.057	861.8	. 699	1.01E+04

POINT SERIAL NO. 1019.010 (TIME= 349.50 SEC)

16.26 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 609.8 K LHP INLET ENTHALPY 1.562E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.91 K MASS FLUX 18.15 KG/SEC-M**2 .545 INLET QUALITY INLET ENTHALPY 1.785E+06 J/KG QUENCH FRONT: -.102 M ELEVATION 0.0000 M/SEC VELOCITY . 439 QUALITY NET LHP POWER TO FLUID 779.2 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.219 1.321 610.4 .608 .513

LEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		M/W**5
.013	694.1	.545	6.31E+03
.025	669.4	.546	6.82E+03
.051	634.8	.547	7.28E+03
.076	626.7	.548	7.52E+03
. 102	620.5	.550	7.72E+03
. 127	622.4	.551	7.71E+03
. 152	623.7	.552	7.82E+03
. 305	644.6	.560	7.85E+03
. 381	657.6	.564	7.89E+03
. 457	664.9	.568	7.93E+03
.533	674.6	.572	7.91E+03
. 610	683.7	.576	7.88E+03
. 686	692.0	. 580	7.87E+03
.762	702.5	.584	7.86E+03
.838	713.1	.589	7.85E+03
.914	720.5	. 593	7.92E+03
.991	731.7	.597	7.84E+03
1.067	740.3	.601	7.88£+03
1.143	739.3	. 605	8.00E+03
1.194	740.8	.607	7.16E+03
1.245	723.3	.610	7.65E+03
1.295	736.3	.612	7.80E+03
1.372	755.4	.616	7.78E+03
1.448	769.8	.620	7.81[+03
1.499	771.6	.623	7.20E+03
1.549	768.3	.625	7.95E+03
1.600	779.3	.628	7.89E+03
1.676	798.9	.632	7.89E+03
1.753	812.0	.636	7.92E+03
1.803	809.5	.639	7.32E+03
1.854	788.6	.641	8.01E+03
1.905	799.8	.644	8.02E+03
1.981	827.2	.648	7.99E+03
2.057	827.1	.652	8.02E+03

POINT SERIAL NO. 2019.010 (TIME= 349.50 SEC) 16.26 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 609.8 K 1.562E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.91 K SAT TEMP 18.15 KG/SEC-M**2 MASS FLUX INLET QUALITY .545 INLET ENTHALPY 1.785E+06 J/KG QUENCH FRONT: ELEVATION -. 102 M 0.0000 M/SEC VELOCITY . 439 QUALITY NET LHP POWER TO FLUID 779.2 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA (M) (K)

1.524 1.626 660.0 .624 .506

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMATION
ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		M/W**5
.013	694.1	. 545	6.31E+03
.025	669.4	.546	6.82E+03
.051	634.8	.547	7.28E+03
.076	626.7	.548	7.52E+03
. 102	620.5	.550	7.72E+03
. 127	622.4	.551	7.71E+03
. 152	623.7	.552	7.82E+03
. 305	644.6	.560	7.85E+03
. 381	657.6	.564	7.89E+03
.457	664.9	.568	7.93E+03
.533	674.6	.572	7.91E+03
.610	683.7	.576	7.88E+03
.686	692.0	.580	7.87£+03
.762	702.5	.584	7.86E+03
. 838	713.1	.589	7.85E+03
.914	720.5	.593	7.92E+03
.991	731.7	.597	7.84E+03
1.067	740.3	.601	7.88E+03
1.143	739.3	.605	8.00E+03
1.194	740.8	.607	7.16E+03
1.245	723.3	.610	7.65E+03
1.295	736.3	.612	7.80E+03
1.372	755.4	.616	7.78E+03
1.448	769.8	.620	7.81E+03
1.499	771.6	.623	7.20E+03
1.549	768.3	.625	7.95E+03
1.600	779.3	.628	7.89E+03
1.676	798.9	.632	7.89E+03
1.753	812.0	. 636	7.92E+03
1.803	809.5	.639	7.32E+03
1.854	788.6	.641	8.012+03
1.905	799.8	. 644	8.02E+03
1.981	827.2	.648	7.99E+03
2.057	827.1	.652	8.02E+03

POINT SERIAL NO. 1020.010	(TIME= 300	.50 SEC)
LOOP PRESSURE(PE-3)	16.25	MPA
FCV TEMPERATURE (TE-FCV-1T)	609.7	K
LHP INLET ENTHALPY	1.562E+06	J/KG
TEST SECTION:	1:0	MPA
PRESSURE		
SAT TEMP	423.90	
MASS FLUX	18.00	KG/SEC-M**2
INLET QUALITY	.554	
INLET ENTHALPY	1.804E+06	J/KG
QUENCH FRONT:		
ELEVATION	-,102	M
VELOCITY	0.0000	M/SEC
QUALITY	. 439	
NET LHP POWER TO FLUID	850.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.219 1.321 607.3 .618 .522

ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		W/M**2
.013	688.9	. 554	8.261+03
.025	667.5	.555	8.23E+03
.051	634.4	.556	8.11E+03
.076	626.8	.558	8.09E+03
. 102	621.0	.559	8.13E+03
.127	622.4	.560	8.10E+03
. 152	623.8	.562	8.10E+03
. 305	643.4	.570	8.02E+03
. 381	655.9	.574	8.00E+03
.457	663.2	.578	7.94E+03
.533	673.0	.582	7.94E+03
.610	681.8	.586	7.93E+03
.686	690.3	.590	7.91E+03
.762	700.2	.594	7.89E+03
.838	710.2	.598	7.88E+03
.914	717.4	.602	7.87E+03
.991	729.1	.606	7.83E+03
1.067	736.7	.610	7.83E+03
1.143	736.2	.614	7.82E+03
1.194	740.1	.617	7.15E+03
1.245	722.9	.619	7.85E+03
1.295	732.9	.622	7.86E+03
1.372	749.9	.626	7.79E+03
1.448	762.9	.630	7.79£+03
1.499	752.8	.632	7.09E+03
1.549	58.3	.635	7.73E+03
1.600	770.2	.637	7.75E+03
1.676	790.5	.641	7.70E+03
1.753	803.1	. 645	7.67E+03
1.803	0.003	.648	7.04E+03
1.854	778.6	.650	7.73€+03
1.905	789.9	. 653	7.76E+03
1.981	817.4	.657	7.77E+03
2.057	815.2	.661	7.74E+03

16.16 MPA

LOOP PRESSURE(PE-3)

	INEL POS	T-CHF EXP	ERIMENT NO	. 20
POINT SERIA	L NO. 20	20.010	(TIME= 300	.50 SEC)
LOOP PRESSU	RE(PE-3)		16.25	MPA
FCV TEMPERA		CV-1T)	609.2	K
LHP INLET E	NTHALPY		1.562E+06	J/KG
TEST SECTIO				
PRESSU			.49	MPA
SAT TE			423.90	K
MASS F			18.00	KG/SEC-M**2
INLET	QUALITY		.554	Transfer and Control
	ENTHALPY		1.804E+06	J/KG
QUENCH FROM			23/01/2017	
ELEVAT			-,102	м
VELOCI			0.9000	M/SEC
QUALIT			. 439	7.0
NET LHP POW		10	850.0	M
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	NIORMATION
ELEVALION	DZQF		XE XA	
(M)	(M)	(K)		
1,524	1.626	605.6	.633 .519	
WALL TEMPER	TATURE MEA	SUREMENT I	LOCATION II	NEORMATION
ELEVATION	TEMP	XE		FLUX
(M)	(K)		W/M	**2
.013	688.9	. 554	8.26	E+03
.025	667.5	. 555	8.23	E+03
.051	634.4	. 556	8.11	E+93
.076	626.8	. 558	8.09	E+03
. 102	621.6	. 559	8.13	E+03
. 127	622.4	.560	8.10	E+03
. 152	623.8	.562	8.10	E+03
. 305	643.4	.570	8.02	E+03
. 381	655.9	.574	8.00	E+03
.457	663.2	.578	7.94	E+03
.533	673.0	.582	7.94	E+03
.610	681.8	.586	7.93	E+03
. 686	690.3	.590	7.91	E+03
.762	700.2	. 594		E+03
. 838	710.2	.598		E+03
.914	717.4	.602	7.87	E+03
.991	729.1	.606	7.83	E+03
1.067	736.7	.610	7.83	E+03
1.143	736.2	.614		
1.194	740.1	.617		E+03
1.245	722.9		7.85	
1.295	732.9	.622	7.86	
1.372	749.9	026		

.026

.630

.632 .635

. 641 .645

.650

.653

.657

749.9

762.9

762.8

758.3 770.2

790.5

803.1 800.0

778.6

789.9

817.4 815.2

1.372

1.448

1.499 1.549 1.600

1.676

1.753

1.854

1.905

1.981 2.057

7.79E+03 7.79E+03

7.09E+03 7.73E+03 7.75E+03

7.70E+03

7.67E+03 7.04E+03

7.73E+33

7.76E+03

7.77E+03 7.74E+03

FCV TEMPER	ATURELTE-F	CV-111	609.	5 K
LHP INLET			1.560E+0	
TEST SECTI	ON:			
PRESS			. 4	9 MPA
SAT I	EMP.		423.8	
MASS	FLUX			0 KG/SEC-M*#2
INLET	QUALITY		.55	8
INLET	ENTHALPY		1.813E+0	6 J/KG
QUENCH FRO				
ELEVA			-, 10	2 M
VELOC				O M/SEC
QUALI			.43	
NET LHP PO	WER TO FLU	110	873.	4 W
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF	TV	XE XA	
(M)	(M)	(K)		
4 506	1 606			
1.524	1.626	615.7	.617 .51	
				INFORMATION
ELEVATION		XE		T FLUX
(M)	(K)		W/	M**5
.013	680.6	.558	5.7	4E+03
.025	656.4	. 559		5E+03
.051	618.5	. 560	5.7	5E+03
.076	609.0	.561	5.7	5E+03
. 102	600.1	.562	5.7	5E+03
. 127	600.9	.563		0E+03
. 152	602.0	. 564		0E+03
. 305	618.2	.570		7E+03
. 381	529.2	.573		6E+03
.457	635.8	.576		6E+03
. 533	644.6	.579		6E+03
610	652.8			7E+03
.686	660.3			GE+03
.762	670.1	.588		4E+03
. 838	679.9	.590		2E+03
.914	\$86.6	. 593		4E+03
1.067	697.2	.596		3E+03
1.243	703.4	. 599		3E+03
1.194	703.9	.602		4E+03
1.245	702.0	.604		6E+03
1.295	685.9	.606		6L+03
1.372	715.2	.608		2E+03
1.448		-611		2E+03
1.409	727.5	.614		3E+03
1.549	711.7	.516		4E+03
1.600	721.4	.618		9E+03
1.676	739.0	620		2E+03
1.753	749.4	.623		4E+43
1.803	746.7	. 626		4ξ+03 9Ε+03
1.854		.627		
1.905	729.6 738.1	.629		3E+03
1.981	774.5	.634		3[+03
2.057	764.1	.637	20.11.00	8E+03
2.021	704.1	.031	0.1	3E+03

POINT SERIAL NO. 2022.010 (TIME= 399.50 SEC)

LOOP PRESSURE (PE-3)

LHP INLET ENTHALPY

FCV TEMPERATURE (TE-FCV-1T)

16.26 MPA

609.6 K

1.561E+06 J/KG

.610

.686

.762

.838

.914

.991

1.067

1.143

1.194

1.245

1.295

1.372

1.448

1.499

1.549

1.600

1.676

1.753

1.803 1.854

1.905

1.981

2.057

829.8

841.2

854.9

867.3

878.2

896.8

909.0

907.9

910.5

880.0

893.8

917.6

939.5

940.4

932.0

946.7 975.7

993.2

991.3

962.5

971.8

954.1

1000.2

```
INEL POST-CHE EXPERIMENT NO. 22
POINT SERIAL NO. 1022.010 (TIME= 399.50 SEC)
                                   16.26 MPA
LOOP PRESSURE (PE-3)
FCV TEMPERATURE (TE-FCV-11)
                                  609.6 K
                              1.561E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                    .48 MPA
     PRESSURE
                                 423.72 K
     SAT TEMP
                                  18 24 KG/SEC-M**2
     MASS FLUX
     INLET QUALITY
                                    569
                              1.835F+06 J/KG
     INLET ENTHALPY
QUENCH FRONT:
                                   -, 102 M
     ELEVATION
     VELOCITY
                                 0.0000 M/SEC
                                   .439
     QUALITY
                                  974.5 W
NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             DZQF
                      TV
                              XE
                                  XA
             (M)
                      (K)
  (M)
1.219
            1.321
                     716.5 .706 .547
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                   HEAT FLUX
                                    M/M**2
  (M)
               (K)
                                   1.70E+04
  .013
              729.3
                         .570
                                   1.71E+04
  .025
              722.4
                          .572
                                    1.71E+04
  .051
              713.2
                          .574
                                    1.71E+04
  .076
              716.8
                          .577
                                   1.71E+04
  102
              718.6
                          580
                          .553
                                   1.71E+04
  . 127
              725.5
                                    1.71E+04
  . 152
              731.2
                          .586
                          .603
                                    1.72E+04
  . 305
              768.0
                                   1.72E+04
  . 381
              789.5
                         .612
                                   1.73E+04
  .457
              802.2
                         .620
                                   1.73E+04
                         .629
  .533
              816.8
```

.638

. 646

.655

.664

.672

.681

.690

.698

.704

.709

.715

. 124

.732

.738

. 743

.749

.758

.766

.771

.777

.783

.791

.799

1.73E+04

1.73E+04

1.73E+04

1.72E+04

1.73E+04

1.72E+04

1.72E+04

1.72E+04

1.60E+04

1.71E+04

1.72E+04

1.72E+04

1.71E+04

1.59E+04

1.71E+04

1.70E+04

1.79E+04

1.69E+04

1.57E+04

1. J9E+04

1.69E+04

1.68E+04 1.68E+04

TEST SECTIO	N.			07110
PRESSI			4.8	MPA
SAT TE			423.72	
MASS I				KG/SEC-M**2
	QUALITY		.569	
	ENTHALPY		1.835E+06	J/KG
QUENCH FROM				
ELEVA	TION		~. 102	M
VELOC	TY		0.0000	M/SEC
QUALIT	Y		.439	
NET LHP POP	VER TO FLU	10	\$74.5	W
VAPOR TEMPE	ERATURE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF	TV	XE XA	
(M)	(M)	(K)		
1.524	1.626	774.3	.740 .548	
WALL TEMPER	PATHEE MEA	SURFMENT	OCATION II	NEORMATION
ELEVATION	TEMP	XE		FLUX
(M)	(K)	A.E.	W/M	
(m)	(1)		W/PI	
.013	729.3	.570	1,70	E+04
.025	722.4	.572	1,71	
.051	713.2	.574	1.71	
.076	716.8	.577	1.71	
. 102	718.6	.580	1.71	
. 127	725.5	.583	1.71	
. 152	731.2	.586	1.71	
. 305	768.0	.603	1.72	+04
. 381	789.5	.612	1.72	E+04
.457	802.2	,620	1.73	+04
.533	816.8	.629	1,731	1+04
.610	829.8	.638	1.731	E+04
.686	841.2	. 646	1.731	
.762	854.9	.653	1.73	
.838	867.3	.664	1,72	
.914	878.2	.672	1.73	
.991	896.8	,681	1.72	
1.067	909.0	.690		
			1.72	
1.143	907.9	.698	1.72	
1.194	910.5	. 704	1.60	
1.245	880.0	. 709	1.71	
1.295	393.8	.715	1.721	
1.372	917.6	. 724	1.721	
1.448	939.5	.732	1.711	+04
1.499	940.4	. 738	1.591	E+04
1.549	932.0	. 743	1.71	
1.600	946.7	. 749	1,70	
1.676	975.7	. 758	1.70	
1.753	993.2	.766	1.69	
1.803	991.3	.771	1.576	
1.854	962.5	.777	1.69	
	971.8			
1.905		. 783	1.691	
1.981	1000.2	. 791		
2.057	954.1	. 799	1.688	+04

POINT SERIAL NO. 2024.010 (TIME= 230.50 SEC)

```
POINT SERIAL NO. 1024.010 (TIME= 230.50 SEC)
LOG? PRESSURE(PE-3)
                                16.29 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                610.2 K
LHP INLET ENTHALPY
                            1.565E+06 J/KG
TEST SECTION:
    PRESSURE
                                  .79 MPA
    SAT TEMP
                               442.95 K
    MASS FLUX
                                17.60 KG/SEC-M**2
    INLET QUALITY
                                 .579
    INLET ENTHALPY
                            1.904E+06 J/KG
QUENCH FRONT:
    ELEVATION
                                -. 102 M
    VELOCITY
                               0.0000 M/SEC
    QUALITY
                                .413
NET LHP POWER TO FLUID
                               1159.7 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
           DZQF
                    TV
                            XE XA
            (M)
                    (K)
 (M)
 1.219
           1.321
                   772.8 .753 .561
```

THE TEMPERATURE MEASUREMENT LOCATION INCOMESTICAL

INEL POST-CHE EXPERIMENT NO. 24

WALL TEMPER	RATURE MEASU	REMENT LOC	ATION INFORMATI	ON
ELEVATION	TEMP	XE	HEAT FLUX	
(M)	(K)		M/M##5	
.013	736.7	.581	2.07E+04	
.025	732.6	.583	2.06E+04	
.051	728.6	.586	2.05E+04	
.076	735.4	.590	2.05E+04	
. 102	738.6	.594	2.06E+04	
. 127	746.7	.597	2.05E+04	
. 152	752.9	.601	2.05E+04	
. 305	789.7	. 623	2.03E+04	
. 381	812.9	.634	2.05E+04	
. 457	828.4	.645	2.03E+04	
.533	845.9	.656	2.05E+04	
.610	861.7	.667	2.04E+04	
. 686	876.5	.677	2.03E+04	
.762	892.4	.688	2.03E+04	
.838	906.8	.699	2.03E+04	
.914	919.7	.710	2.03E+04	
.991	937.2	.721	2.02E+04	
1.067	948.6	.732	2.01E+04	
1.143	946.1	. 743	2.02E+04	
1.194	951.9	. 750	1.87E+04	
1.245	933.0	.757	2.01E+04	
1.295	949.8	. 764	2.01E+04	
1.372	971.6	. ?75	2.02E+04	
1.448	991.3	. 785	2.01E+04	
1.499	992.8	. 792	1.86E+04	
1.549	989.8	.799	1.99E+04	
1.600	1004.1	.806	1.99E+04	
1.676	1029.3	.817	1.99E+04	
1.753	1044.2	.828	1.98E+04	
1.803	1044.3	.834	1.84E+04	
1.854	1020.8	.841	2.00E+04	
1.905	1028.6	.848	1.98E+04	
1.981	1030.8	.859	2.00E+04	
2.057	977.8	.870	2.02E+04	

LOOP PRESS				16.29	
FCV TEMPERA		CV-11)		610.2	
LHP INLET			1.56	5E+06	J/KG
TEST SECTION					
PRESS					MPA
SAT T				42.95	
MASS					KG/SEC-M**2
	QUALITY			.579	
	ENTHALPY		1,90	4E+06	J/KG
QUENCH FROM				100	
ELEVA				102	
VELOC			U		M/SEC
QUAL				.413	
NET LIP PO	MER TO FLE	110		159.7	н
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCA		INFORMATION
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
1,524	1.626	832.5	. 796	.566	
WALL TEMPER	RATURE MEA	SUREMENT	LOCAL	10N 11	NEORMATION
ELEVATION	TEMP	XE	LUCKI		TLUX
(M)	(K)			W/M	
1	1				
.013	736.7	.581		2.07	E+04
.025	732.6	. 583		2.06	E+04
.051	728.6	. 586		2.05	E+04
.076	735.4	.590		2.05	F+04
. 102	738.6	.594		2.06	E+04
. 127	746.7	.597		2.05	E+04
. 152	752.9	.601		2.05	E+04
. 305	789.7	.623		2.03	E+04
. 381	812.9	. 634		2.05	E+04
.457	828.4	. 645		2.03	E+04
.533	845.9	.656		2.05	
.610	861.7	. 667		2.04	E+04
.686	876.5	.677		2.03	
.762	892.4	. 688		2.031	
.838	906.8	.699		2.03	
.914	919.7	.710		2.03	
.991	937.2	.721		2.021	E+04
1.067	948.6	. 732		2.01	
1.143	946.1			2.021	5.11.15.15.15.1
1.194	951.9	. 750		1.87	
1.245	933.0			2.011	
1.295	949.8	. 764		2.01	
1.372	971.6	.775		2.02	
1.448	991.3	. 785		2.01	
1.499	992.8	.792		1.86	
1.549	989.8	, 799		1,99	
1.600	1004.1	.806		1.99	

.817

.828

.834

.641

.848

.859

.870

1.99E+04

1.98E+04

1.845+04

2.00E+04

1.98E+04

2.00E+64

2.02E+04

1029.3

1044.2

1044.3

1020.8

1028.6

1030.8

977.8

1.676

1.753

1.803

1.854

1.905

1.981

2.057

POINT SERIA	AL NO. 10	25.010	(TIME= 209	.50 SEC)
LOOP PRESSI	IRE (PF = 3)		16.14	MPA
FCV TEMPERA		CV-1T1	607.9	K
LHP INLET		04-111	1.550E+06	
TEST SECTION			1.3300.00	37110
PRESSI			. 30	MPA
SAI TI			406.92	
MASS				KG/SEC-M##2
	QUALITY		.530	
	ENTHALPY		1.708E+06	
QUENCH FROM			1.1001.400	3/10
			102	м
VELOC			0.0000	
# # CO			.457	
NET LHP PO		LD.	436.8	
				INFORMATION
ELEVATION	100.00		XE XA	
(M)	(M)	(K)		
1,219	1.321	754.1	.665 .498	
WALL TEMPER	DATURE MEA	CHDEMENT	LOCATION	NEODMATION
ELEVATION	and the second second	XE		FLUX
	(K)	VE	W/M	
(M)	(K)		M/M	
012	770.4	.531	1.38	E40h
.013	763.1			E+04
.025		.533		
.051	753.9 756.0	.536	1.36	
.076		.541	1.36	
. 102	756.0	.544		
. 127	761.8			
. 152	764.6	-547		
. 305	792.8	.564		
. 381	813.7	.572		
. 457	825.2	.581		
.533	838.7	.589		
.610	851.5	.598		
.686	862.3	.606		
.762	877.3			
.838	893.6	.623		
.914	908.6	.631		E+04
. 991	929.7	.640		
1.067	943.5	.648		E+04
1.143	940.8	. 657		
1.194	942.0	.662		
1.245	914.4	.667		
1.295	927.3	.673	1.35	
1.372	951.2	.682		
1.448	977.4	.690		
1.499	981.2	. 695		
1.549	977.6	. 701		E+04
1.600	992.5	. 706	1.33	E+04
1.676	1023.9	.715		E+04
1.753	1045.8	.723	1.32	E+04
1.803	1047.0	.728	1,22	E+04
1.854	1025 2	.733	1,32	
1.905	1031.4	.739		
2.031	10.7.3		1.32	
1.981 2.057	1057.4	.747	1.31	E+04

POINT SER	TAL NO.	2025.010	(TIME=)	209	.50 SEC)
	SURE (PE-3				MPA
FCV TEMPE	RATURELTE	-FCV-1T)	60	7.9	K
	ENTHALPY		1.550E	+06	J/KG
TEST SECT	ION:				
PRES	SURE				MPA
	TEMP			.92	
MASS	FLUX				KG/SEC-M##2
INLE	T QUALITY			530	
INLE	T ENTHALP	Y	1.708E	+06	J/KG
QUENCH FR	ONT:				
ELEV	ATION			102	
VELO	CITY				M/SEC
QUAL				457	
NET LHP P	OWER TO F	LUID	43	8.8	M
VAPOR TEM	PERATURE	MEASUREMEN	LOCATIO	ON	INFORMATION
	DZQF	IV	XE	XA	
(M)	(M)	(K)			
1.524	1.626	809.8	698	503	
1.00					
		EASUREMENT		N II	NEORMATION
ELEVATION					FLUX
(M)	(K)		-	W/M	**2
	770	4 .53		20	E+04
.013	770.				E+04
.025	763.				E+04
.051	753.		9 1		E+04
.076	756. 756.		1		E+04
. 102					E+04
. 127	761.				E+04
. 152	764.				E+04
.305	792. 813.		2 1		E+04
.457	825.		1		E+04
. 533	838.				E+04
	851.				E+04
.610	862.				E+04
.762	877.				E+04
.838	893.				E+04
.914	908.				E+04
.991	929.				E+04
1.067	943.				E+04
1.143	940.				E+04
1.194	942.				E+04
1.245	914.				E+04
1.295	927.			m (45.85)	E+04
1.372	951.		200		E+04
1.448	977.				E+04
1.499	981.				E+04
1.549	977.				E+04
1.600	992.	5 .70	6 1		E+04
1.676	1023.				E+04
1.753	1045.				E+04
1.603	1047.				E+04
1.854	1025.				E+04
1.905	1031.				E+04
1.981	1057.		7 1		E+04
2.057	1019.				E+04
2.071	1019.			. 36	2.04

POINT SERIAL NO. 1026.010 (TIME= 240.50 SEC)

1.981

2.057

1057.4

1019.9

POINT SERIAL NO. 3025.010 (TIME= 209.50 SEC) 16.14 MPA LOOP PRESSURE (PE-3) 607.9 K FCV TEMPERATURE (TE-FCV-11) 1.550E+06 J/KG LHP INLET ENTHALPY TEST SECTION: PRESSURE . 30 MPA 406.92 K SAT TEMP 14.27 KG/SEC-M**2 MASS FLUX INLET QUALITY .530 1.708E+06 J/KG INLET ENTHALPY QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY .457 QUALITY NET LHP POWER TO FLUID 438.8 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF TV XE XA ELEVATION (M) (K) (M) 884.9 .731 .498 1.829 1.930 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M##2 (M) (K) .013 770.4 .531 1.38E+04 .533 .025 763.1 1.37E+04 1.37E+04 .051 753.9 .536 .076 756.0 .538 1.36E+04 1.36E+04 756.0 .541 . 102 .544 1.36E+04 .127 761.8 1.35E+04 . 152 764.6 .547 .305 1.35E+04 792.8 .564 1.35E+04 . 381 813.7 .572 1.35E+04 .457 825.2 .581 .589 1.34E+04 .533 838.7 .610 851.5 1.34E+04 .598 1.34E+04 .686 862.3 . 606 877.3 .614 1.34E+04 .762 893.6 .623 1.34E+04 .838 1.35E+04 .914 908.6 .631 1.35E+04 .640 .991 929.7 1.35E+04 943.5 .648 1.067 .657 940.8 1.36E+04 1.143 942.0 1.25E+04 1.194 .662 1.35E+04 1.245 914.4 .667 1.35E+04 927.3 1.295 . 573 .682 1.35E+04 951.2 1.372 .690 1.448 977.4 1.34E+04 1.499 981.2 .695 1,24E+04 1.33E+04 .701 1.549 977.6 .706 1.33E+04 992.5 1,600 .715 1.32E+04 1.676 1023.9 1.753 1045.8 .723 1.32E+04 1.22E+04 1.803 1047.0 .728 .733 1.32E+04 1025.2 1.854 1.31E+04 1031.4 .739 1.905

. 747

.755

1.31E+04

1.32E+04

POINT SERIA	IL NO. 10	26.010	(I IME	= 240	, 50 SEC)
LOOP PRESSU	JRE(PE-3)			16.18	MPA
FCV TEMPERA		CV-1T)		606.4	
LHP INLET E	NTHALPY		1.53	9E+06	J/KG
TEST SECTIO					
PRESSU				.30	MPA
SAT TE	MP		14	06.63	
MASS I	LUX				KG/SEC-M**2
	QUALITY			.516	
INLET	ENTHALPY		1.67	8E+06	J/KG
QUENCH FROM	¥T:				
ELEVAT	TION			102	М
VELOCI					M/SEC
QUALIT	IY			.452	
NET LHP POV	VER TO FLU	ID		383.3	W
VAPOR TEMP	PATURE ME	ASHDEMENT	LOCA	TION	NEORMATION
ELEVATION	DZQF	IV	KE	XA	MICHALION
(M)	(M)	(K)	V.C.	AM	
(111)	(11)	()			
1.219	1.321	733.3	.620	.472	
LIALL TEMPET	NATURE MEA	CHOCMENT			uroom vion
WALL TEMPER	TEMP		LUCAT		
(M)		XE			FLUX
(41)	(K)			W/M	2
.013	763.4	.517		1.06	F+04
.025	753.4			1.05	
.051	738.5	.520		1.04	
.076	737.4	.523		1.04	
. 102	735.3	.525		1.04	
.127	739.3	.527		1.04	
. 152	740.5	.529		1.04	
. 305	763.9	. 542		1.04	
. 381	784.0	. 549		1.04	
.457	795.7	. 555		1.04	
.533	809.7	. 562		1.04	
.610	822.6	. 568		1.04	E+04
.686	834.0	.575		1.04	
.762	848.2	.581		1.03	
.838	862.5	.588		1.03	E+04
.914	873.7	.591		1.03	E+()4
.991	892.6	.601		1.03	E+04
1.067	904.6	.601	1	1.03	E+04
1.143	901.7	.613	3	1.03	E+04
1.194	902.9	.618	3	9.47	E+03
1.245	879.2	.622	>	1.02	E+04
1.295	891.3	.626	,	1.02	E+04
1.372	912.9	.632)	1,02	E+04
1.448	936.7	.639)	1.02	E+04
1.499	939.3	. 643	3	9.41	E+03
1.549	932.8	. 647	1	1.01	E+04
1.600	946.1	.651		1.01	E+04
1.676	975.1	. 658		1.01	
1.753	996.1	. 664		1.00	E+04
1.803	996.6	.668		9.22	
1.854	974.6	. 672		1.01	
1.905	981.4	.676		1.00	
1.981	1005.5	.682	2	9.96	
2.057	992.2	. 689)	1.01	

POINT SERIAL NO. 2026 DID. (TIME- 200 SO SEC)

POINT SERIAL NO. 2026.010 (TIME= 240.50 SEC) LOOP PRESSURE(PE-3) 16.18 MPA FCV TEMPERATURE (TE-FCV-1T) 606.4 K LHP INLET ENTHALPY 1.539E+06 J/KG TEST SECTION: .30 MPA PRESSURE 406.63 K SAT TEMP 14.17 KG/SEC-M**2 MASS FLUX INLET QUALITY .516 1.678E+06 J/KG INLET ENTHALPY QUENCH FRONT: -. 102 M ELEVATION 0.0000 M/SEC VELOCITY .452 QUALITY 383.3 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION · XE XA DZQF TV ELEVATION (M) (M) (K) 781.3 .645 .474 1.626 1.524 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX XE ELEVATION TEMP W/M##2 (M) (K) .517 1.06E+04 763.4 .013 1.05E+04 .518 753.4 .025 .520 1.04E+04 .051 738.5 .523 1.04E+04 737.4 .076 1.04E+04 735.3 .525 .102 1.04E+04 .127 739.3 .527 .529 1.04E+04 .152 740.5 .542 1.04E+04 763.9 . 305 1.04E+04 .549 784.0 .381 .555 1.04E+04 795.7 .457 1.04E+04 .562 809.7 .533 1.04E+04 .568 822.6 .610 .575 1.04E+04 834.0 .686 1.03E+04 848.2 .581 .762 .588 1.03E+04 862.5 .838 .594 1.03E+04 873.7 .914 892.6 .601 1.03E+04 .991 1.03E+04 904.6 .607 1.067 .613 1.03E+04 1.143 901.7 .618 9.47E+03 1.194 902.9 .622 879.2 1.02E+04 1.245 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 .639 1.448 936.7 939.3 .643 9.41E+03 1.499 1.01E+04 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.00E+04 1.753 996.1 .664 9.22E+03 .668 1.803 996.6 1.01E+04 .672 1.854 974.6 1.00E+04 1.905 981.4 .676

.682

.689

1005.5

992.2

1.981

2.057

9.96E+03

1.01E+04

LOOP PRESSURE (PE-3) 16.18 MPA 606.4 k 1.539E+06 J/KG	POINT SERI	AL NO. 30	026.010	(TIME= 240	.50 SEC)
Test Section:	LOOP PRESS	URE(PE-3)		16.18	MPA
TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QUALITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QUALITY QUALITY QUALITY QUALITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUALITY QU	FCV TEMPERA	ATURE (TE-	FCV-1T)	606.4	K
PRESSURE SAI TEMP MASS FLUX INLET QUALITY INLET QUALITY INLET QUALITY INLET ROTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID 1.678E+06 J/KG QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID 2.452 NET LHP POWER TO FLUID 383.3 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF (M) (K) 1.829 1.930 848.0 670 469 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (K) 1.829 1.930 848.0 670 469 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (K) 1.013 763.4 518 1.05E+04 .025 753.4 518 1.05E+04 .025 753.4 520 1.04E+04 .025 1.02 735.3 525 1.04E+04 .102 735.3 525 1.04E+04 .102 735.3 525 1.04E+04 .102 735.3 527 1.04E+04 .457 795.7 555 1.04E+04 .457 796.7 686 834.0 575 1.04E+04 .457 796.7 686 834.0 575 1.04E+04 .457 796.7 686 834.0 575 1.04E+04 .457 796.7 686 838.8 862.5 588 1.03E+04 .991 892.6 601 1.03E+04 .991 892.6 607 1.03E+04 .991 1.994 992.9 618 9.47E+03 1.04E+04 1.04E+04 1.03E+04 1.04B+04 1.04B+0	LHP INLET	ENTHALPY		1.539E+06	J/KG
SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY OUALITY OUALI	TEST SECTIO	ON:			
MASS FLUX 14.17 1516 1.678E+06	PRESS	URE		, 30	MPA
INLET QUALITY	SAT T	EMP			
INLET QUALITY	MASS	FLUX		14.17	KG/SEC-M**2
QUENCH FRONT: ELEVATION	INLET	QUALITY			
ELEVATION VELOCITY QUALITY .452 NET LHP POWER TO FLUID .383.3 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.829 1.930 848.0 .670 .469 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX (M) (K)	INLET	ENTHALPY		1.678E+06	J/KG
VELOCITY QUALITY 383.3 W	QUENCH FROM	NT:			
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION	ELEVA	TION		102	M
NET LHP POWER TO FLUID 383.3 W	VELOC	ITY		0.0000	M/SEC
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (M) (K) 1.829 1.930 848.0 .670 .469 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M**2 .013 763.4 .517 1.06E+04 .025 753.4 .518 1.05E+04 .051 738.5 .520 1.04E+04 .051 738.5 .520 1.04E+04 .102 /35.3 .525 1.04E+04 .102 /35.3 .525 1.04E+04 .127 739.3 .527 1.04E+04 .127 739.3 .527 1.04E+04 .381 784.0 .549 1.04E+04 .381 784.0 .549 1.04E+04 .457 795.7 .555 1.04E+04 .457 795.7 .555 1.04E+04 .666 834.0 .575 1.04E+04 .666 834.0 .575 1.04E+04 .666 834.0 .575 1.04E+04 .666 834.0 .575 1.04E+04 .666 838.2 .588 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .1194 902.9 .618 9.47E+03 .194 903.8 .643 9.41E+03 .194 903.8 .643 9.41E+03 .194 903.8 .647 1.01E+04 .195 905 981.4 .676 1.00E+04 .1981 1.005.5 .682 9.96E+03 .1981 1.005.5 .682 9.96E+03 .1981 1.005.5 .682 9.96E+03 .1981	QUALI	TY		. 452	
ELEVATION (M) (K) XE XA 1.829 1.930 848.0 .670 .469 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M**2 .013 763.4 .517 1.06E+04 .025 753.4 .518 1.05E+04 .051 738.5 .520 1.04E+04 .051 738.5 .520 1.04E+04 .102 735.3 .525 1.04E+04 .102 735.3 .527 1.04E+04 .102 735.3 .527 1.04E+04 .105 739.3 .527 1.04E+04 .305 763.9 .542 1.04E+04 .305 763.9 .542 1.04E+04 .381 784.0 .549 1.04E+04 .457 795.7 .555 1.04E+04 .457 795.7 .555 1.04E+04 .610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .686 834.0 .575 1.04E+04 .686 834.0 .575 1.04E+04 .688 886.2 .581 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .1143 901.7 .613 1.03E+04 .991 892.6 .601 1.03E+04 .1194 902.9 .618 9.47E+03 .1245 879.2 .622 1.02E+04 .1372 912.9 .632 1.02E+04 .1488 936.7 .639 1.02E+04 .1499 939.3 .643 9.41E+03 .1549 932.8 .647 1.01E+04 .1660 946.1 .651 1.01E+04 .1753 996.1 .668 9.22E+03 .1854 974.6 .672 1.01E+04 .1753 996.1 .668 9.22E+03 .1803 996.6 .668 9.22E+03 .1804 974.6 .672 1.01E+04 .1981 1005.5 .682 9.96E+03	NET LHP PO	WER TO FLE	JID	383.3	W
(M) (M) (K) 1.829	VAPOR TEMP	ERATURE MI	EASUREMENT	LOCATION	INFORMATION
Table Tabl	ELEVATION	DZQF	TV	XE XA	
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M**2 .013	(M)	(M)	(K)		
ELEVATION (M) (K) XE HEAT FLUX W/M**2 .013	1.829	1.930	848.0	.670 .469	
(M) (K) W/M**2 .013	WALL TEMPER	RATURE MEA	ASUREMENT	LOCATION I	NEORMATION
.013	ELEVATION	TEMP	XE	HEAT	FLUX
.025	(M)	(K)		W/M	**2
.025	.013	763.4	.517	1.06	E+04
.051	. 025	753.4			
.076 .102 .737.4 .523 .1.04E+04 .102 .735.3 .525 .1.04E+04 .127 .739.3 .527 .1.04E+04 .152 .740.5 .529 .1.04E+04 .305 .763.9 .542 .1.04E+04 .381 .784.0 .549 .1.04E+04 .457 .795.7 .555 .1.04E+04 .457 .795.7 .555 .1.04E+04 .610 .822.6 .568 .1.04E+04 .686 .834.0 .575 .1.04E+04 .686 .834.0 .575 .1.04E+04 .686 .838.2 .581 .1.03E+04 .838 .862.5 .588 .1.03E+04 .914 .873.7 .594 .1.03E+04 .991 .892.6 .601 .1.03E+04 .991 .991 .892.6 .601 .1.03E+04 .1.143 .901.7 .613 .1.03E+04 .1.143 .901.7 .613 .1.03E+04 .1.144 .902.9 .618 .9.47E+03 .1.245 .879.2 .622 .1.02E+04 .1.372 .912.9 .632 .1.02E+04 .1.372 .912.9 .632 .1.02E+04 .1.499 .939.3 .643 .941E+03 .549 .932.8 .647 .1.01E+04 .666 .753 .996.1 .668 .9.22E+03 .803 .996.6 .668 .9.22E+03 .803 .996.6 .668 .9.22E+03 .805 .996E+03	.051		.520	1.04	E+04
102	.076	737.4			E+04
152 740.5 .529 1.04E+04 305 763.9 .542 1.04E+04 381 784.0 .549 1.04E+04 457 795.7 .555 1.04E+04 .657 795.7 .555 1.04E+04 .610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .686 834.0 .575 1.04E+04 .686 834.0 .575 1.04E+04 .687 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .143 901.7 .613 1.03E+04 .1143 901.7 .613 1.03E+04 .1194 902.9 .618 9.47E+03 .1245 879.2 .622 1.02E+04 .295 891.3 .626 1.02E+04 .372 912.9 .632 1.02E+04 .372 912.9 .632 1.02E+04 .399 939.3 .643 9.41E+03 .549 932.8 .647 1.01E+04 .660 946.1 .651 1.01E+04 .676 975.1 .658 1.01E+04 .1.676 975.1 .658 1.01E+04 .1.676 975.1 .658 1.01E+04 .1.676 975.1 .658 9.22E+03 .1.803 996.6 .668 9.22E+03 .1.803 996.6 .668 9.22E+03 .1.804 974.6 .672 1.01E+04 .1.905 981.4 .676 1.00E+04 .1.905 981.4 .676 1.00E+04 .1.905 981.4 .676 1.00E+04	. 102	735.3	.525	1.04	E+04
.305 763.9 .542 1.04E+04 .381 784.0 .549 1.04E+04 .457 795.7 .555 1.04E+04 .533 809.7 .562 1.04E+04 .610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .143 901.7 .613 1.03E+04 1.143 901.7 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.489 936.7 .639 1.02E+04 1.499 932.8	. 127	739.3	.527	1.04	E+04
.381 784.0 .549 1.04E+04 .457 795.7 .555 1.04E+04 .533 809.7 .562 1.04E+04 .610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .601 1.03E+04 .991 1.43 901.7 .613 1.03E+04 .143 901.7 .613 1.03E+04 1.143 901.7 .613 1.03E+04 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.676 975.1 .658 1.01E+04 1.676	. 152	740.5	.529	1.04	E+04
,457 795.7 .555 1.04E+04 .533 809.7 .562 1.04E+04 .610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .991 892.6 .607 1.03E+04 1.067 904.6 .607 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.676 975.1 .658 1.01E+04 1.676 975.1 .658 1.01E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 <td>. 305</td> <td>763.9</td> <td></td> <td></td> <td>E+04</td>	. 305	763.9			E+04
.533 809.7 .562 1.04E+04 .610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .1.067 904.6 .607 1.03E+04 .1.143 901.7 .613 1.03E+04 .1.194 902.9 .618 9.47E+03 .1.245 879.2 .622 1.02E+04 .295 891.3 .626 1.02E+04 .372 912.9 .632 1.02E+04 .372 912.9 .632 1.02E+04 .448 936.7 .639 1.02E+04 .499 939.3 .643 9.41E+03 .549 932.8 .647 1.01E+04 .660 946.1 .651 1.01E+04 .676 975.1 .658 1.01E+04 .1.753 996.1 .668 9.22E+03 .803 996.6 .668 9.22E+03 .804 974.6 .672 1.01E+04 .905 981.4 .676 1.00E+04	. 381	784.0	.549	1.04	E+04
.610 822.6 .568 1.04E+04 .686 834.0 .575 1.04E+04 .762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .1067 904.6 .607 1.03E+04 1.143 901.7 .613 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.676 975.1 .658 9.22E+03 1.803 996.6 .668 9.22E+03 1.804 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04	. 457	795.7	.555	1.04	E+04
.686 834.0 .575 1.04E+04 .762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 .91.143 901.7 .613 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.676 975.1 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03	.533	809.7	.562	1.04	E+04
. 762 848.2 .581 1.03E+04 .838 862.5 .588 1.03E+04 .914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 1.067 904.6 .607 1.03E+04 1.143 901.7 .613 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.804 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04	.610	822.6	.568		
.838	.686	834.0	.575	1.04	E+04
.914 873.7 .594 1.03E+04 .991 892.6 .601 1.03E+04 1.067 904.6 .607 1.03E+04 1.143 901.7 .613 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03	.762		.581	1.03	E+04
.991 892.6 .601 1.03E+0# 1.067 904.6 .607 1.03E+0# 1.143 901.7 .613 1.03E+0# 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+0# 1.295 891.3 .626 1.02E+0# 1.372 912.9 .632 1.02E+0# 1.448 936.7 .639 1.02E+0# 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+0# 1.600 946.1 .651 1.01E+0# 1.676 975.1 .658 1.01E+0# 1.753 996.1 .664 1.00E+0# 1.753 996.1 .668 9.22E+03 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+0# 1.905 981.4 .676 1.00E+0# 1.981 1005.5 .682 9.96E+03	. 838	862.5	.588	1.03	E+04
1.067 904.6 .607 1.03E+04 1.143 901.7 .613 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.753 996.6 .668 9.22E+03 1.803 996.6 .668 9.22E+03 1.804 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.905 981.4 .676 1.00E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03				1.03	E+04
1.143 901.7 .613 1.03E+04 1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.753 996.1 .668 9.22E+03 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.194 902.9 .618 9.47E+03 1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.753 996.6 .668 9.22E+03 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.245 879.2 .622 1.02E+04 1.295 891.3 .626 1.02E+04 1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
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1.372 912.9 .632 1.02E+04 1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.448 936.7 .639 1.02E+04 1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.499 939.3 .643 9.41E+03 1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.549 932.8 .647 1.01E+04 1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.600 946.1 .651 1.01E+04 1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.676 975.1 .658 1.01E+04 1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.753 996.1 .664 1.00E+04 1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.803 996.6 .668 9.22E+03 1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.854 974.6 .672 1.01E+04 1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.905 981.4 .676 1.00E+04 1.981 1005.5 .682 9.96E+03					
1.981 1005.5 .682 9.96E+03					
	1.981	1005.5	.682	9.96	+03

2.057

992.2

.689

1.01E+04

POINT SERIA	AL NO. 10	27.010	TIME= 209	50 SEC)
. Dilli				. 20 31.07
LOOP PRESSI	URE (PE-3)		16.21	MPA
FCV TEMPER	ATURELIE-F	CV-1[]	607.3	
LHP INLET			1,545E+06	J/KG
TEST SECTION				
PRESS			30	MPA
SAT T			406.58	
MASS				KG/SEC-M**2
	QUALITY		.524	MOY DELL-MILLS
	ENTHALPY			1.000
	The second secon		1.694E+06	J/KG
QUENCH FROM			***	
ELEVA			102	
VELOC			0.0000	M/SEC
CUALI			.455	
NET LHP PO	WER TO FLU	110	407.2	W
WARDE TEMP	EDATINE ME	ACDDEMENT	LOCATION	INFORMATION
ELEVATION	DZQF	IV	XE XA	THIONNATION
			AL AA	
(M)	(M)	(K)		
1.219	1.321	701.8	.612 .477	
1.6.17	1.361	101.0	.012 .911	
WALL TEMPE	RATURE MEA	SUREMENT	LOCATION I	NEORMATION
ELEVATION	TEMP	XE		FLUX
(M)	(K)		W/M	
4	1			
.013	751.7	. 525	8.94	E+03
.025	738.0	.526	8.90	
.051	716.8	.528	8.82	
.076	712.5	.529		
. 102	708.1	.531	8.78	
.127	710.4	.533	8.75	
.152	710.5	.535		
.305	/30.8	.546	0,74	
. 381	748.6	.552		
. 301			8.69	
.457	759.6	.557	8.71	
.533	772.9	. 563		
.610	785.1	.568		
.686	796.3	.574		
.762	810.0	.579		
.838	823.6	. 585	8.71	
.914	834.4	.590		
.991	851.2	.596		
1.067	862.2	.601		
1.143	860.2	.607		E+03
1.194	861.9	.610		
1.245	841.3	.614		E+03
1.295	852.2	.618	8.67	E+03
1.372	872.4	.623	8.64	E+03
1.448	894.1	.628	8.62	E+03
1.499	896.2	.632	7.92	E+03
1.549	889.5	.635		
1,600	901.8	.639		
1.676	929.0	. 645		
1.753	948.8	.650		
1.803	949.0	.653		
1.854	928.4	.657		
1,905	935.4	.660		
1.981	959.9	.666		
2.057	952.1	.671		
2.031	776.	.0/1	8.46	F.102

POINT SERIA	AL NO. 20	27.010	(TIME= 209	.50 SEC)
LOOP PRESSI	JRE(PE-3)		16.21	MPA
FCV TEMPERA		CV-11)	607.3	
LHP INLET !	NTHALPY		1.545E+06	
TEST SECTIO				
PRESSI	IRE			MPA
SAT TI	MP		406.58	
MASS I	FLUX			KG/SEC-M**2
	QUALITY		.524	
INLET	ENTHALPY		1.694E+06	J/KG
QUENCH FROM	VT:			
ELEVA			-, 102	
VELOC			0,0000	
QUALI			.455	
NET LHP PO	WER TO FLU	10	407.2	W
VAPOR TEMPI	ERATURE ME			INFORMATION
ELEVATION	DZQF	TV	XE XA	
(M)	(M)	(K)		
1.524	1.626	746.6	.634 .478	
WALL TEMPET	RATURE MEA	SUREMENT	LOCATION I	NEORMATION
ELEVATION	TEMP	XE		FLUX
(M)	(K)		W/M	**2
.013	751.7	.525	8.94	
.025	738.0	.526	8.90	
.051	716.8	.528	8.82	
.076	712.5	.529	8.79	
. 102	708.1	.531	8.78	
. 127	710.4	.533		
. 152	710.5	.535	8.74	
. 305	730.8	.546		
. 381	748.6	.552	8.69	
.457	759.6	.557	8.71	
.533	772.9	.563		
.610	785.1	. 568		
.686	796.3	.574		
.762	810.0	.579		
.838	823.6	.585	8.71	
.914	834.4	.590		
.991	851.2	.596	8.68	
1.067	862.2	.601	8.65	
1.143	£50.2	.607		
1.194	861.9	.610		
1.245	841.3	.614		
1.295	852.2	.618	8.67	
1.372	372.4		8.62	
1.448	894.1	.628		
1.499	896.2	.632	7.92	
1.549	889.5	.635	8.59	
1.600	901.8	.639	8.57	
1.676	929.0	.645	8.53	
	948.8	.650		
1.803	949.0	.653		
1.854	928.4	.657	8.48	
1.981	959.9	.666		
2.057	952.1	.671	8.46	
2.021	952.1	.071	0.40	2.03

.740

908.4

905.1

9.22E+03

9.22E+03

1.981

2.057

959.9

952.1

.666

.671

8.45E+03

8.46E+03

POINT SERIAL NO. 1028.010 (TIME= 209.50 SEC) POINT SERIAL NO. 3027.010 (TIME= 209.50 SEC) 16.23 MPA LOOP PRESSURE(PE-3) LOOP PRESSURE(PE-3) 16.21 MPA FCV TEMPERATURE (TE-FCV-11) 608.1 K FCV TEMPERATURE (TE-FCV-1T) 607.3 K 1.550E+06 J/KG LHP INLET ENTHALPY 1.545E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .29 MPA PRESSURE PRESSURE .30 MPA 406.58 K 405.12 K SAT TEMP SAT TEMP 14.13 KG/SEC-M**2 14.12 KG/SEC-M**2 .524 MASS FLUX MASS FLUX ITLET QUALITY .580 INLET QUALITY INLET ENTHALPY 1.811E+06 J/KG INLET ENTHALPY 1.694E+06 J/KG QUENCH FRONT: QUENCH FRONT: -. 102 M ELEVATION ELEVATION -. 102 M 0.0000 M/SEC VELOCITY . VELOCITY 0.0000 M/SEC .459 QUALITY . 455 QUALITY NET LHP POWER TO FLUID 709.1 W NET LIP POWER TO FLUID 407.2 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZQF ELEVATION DZQF IV XE XA (K) (M) (M) (M) (K) (M) 1.321 663.1 .675 .542 1.829 1.930 807.6 .655 .472 1.219 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX TEMP ELEVALION TEMP XE HEAT FLUX ELEVATION W/M##2 (K) W/H##2 (K) (M) (M) 9.59E+03 .525 728.3 .581 .013 751.7 8.94E+03 .013 9.41E+03 .526 .582 .025 738.0 8.90E+03 .025 710.0 .584 9.38E+03 .051 716.8 .528 B.82E+03 .051 683.4 678.6 . 586 9.39E+03 712.5 .529 8.79E+03 .076 .076 9.39E+03 708.1 .531 8.781+03 .102 675.1 .588 , 102 9.40E+03 .127 . 127 677.9 .590 710.4 533 8.75E+03 .592 9.39E+03 . 152 679.4 . 152 710.5 .535 8.74E+03 .604 .305 702.8 9.37E+03 .305 730.8 .546 8.71E+03 9.38E+03 .381 8.69E+03 . 381 720.1 .610 748.6 .552 9.386+03 .457 759.6 .557 8.71E+03 .457 730.8 .616 9.37E+03 772.9 8.70E+03 .533 743.3 . 622 .533 .563 .628 9.38E+03 754.3 .610 785.1 .568 8.70E+03 .610 764.7 .634 .574 8.71E+03 .686 9.37E+03 .686 796.3 9.39E+03 810.0 .579 8.70E+03 .762 776.8 .640 .762 9.34E+03 .838 823.6 .585 8.71E+03 .838 789.6 . 646 9.34E+03 .914 834.4 8.71E+03 .914 799.8 .651 9.39E+03 .991 815.6 .657 .991 851.2 .596 8.68E+03 826.3 9.36E+03 8.65E+03 1.067 .663 1.067 862.2 .601 1.143 860.2 .607 8.69E+03 1.143 826.1 .669 9.30E+03 8.68E+03 1.194 861.9 .610 7.96E+03 1.194 825.2 .673 9.42E+03 1.245 .614 1.245 794.8 .677 841.3 8.66E+03 9.41E+03 1.295 852.2 .618 8.67E+03 1.295 806.7 .681 9.39E+03 872.4 .623 8.64E+03 1.372 828.4 .687 1.372 1.448 894.1 .628 8.62E+03 1.448 848.3 .693 9.35E+03 8.66E+03 1.499 896.2 .632 7.92E+03 1.499 848.5 .697 . 701 9.36E+03 1.549 889.5 .635 8.59E+03 1.549 837.2 .705 850.8 9.34E+03 1.600 901.8 .639 8.57E+03 1.600 929.0 1.676 877.7 9.30E+03 1.676 .645 8.53E+03 .711 .717 1.753 948.8 .650 8.49E+03 1.753 895.6 9.31E+03 1.803 949.0 .653 7.80E+03 1.803 893.6 .720 8.58E+03 . 724 9.18E+03 1.854 928.4 .657 8.48E+03 1.854 868.4 877.6 .728 9.23E+03 1,905 935.4 .660 8.49E+03 1.905

1.981

2.057

1.676

1.753

1.803

1.854

1.905

1.981

2.057

850.8 877.7

895.6

893.6

868.4

877.6

908.4

905.1

POINT SERIAL NO. 2028.010 (TIME= 209.50 SEC) 16.23 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 608.1 K 1.550E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .29 MPA PRESSURE 405.12 K SAT TEMP 14.13 KG/SEC-M**2 MASS FLUX .580 INLET QUALITY 1.811E+06 J/KG INLET ENTHALPY QUENCH FRONT: -. 102 M ELEVATION VELOCITY 0.0000 M/SEC QUALITY .459 NET LHP POWER TO FLUID 709.1 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF TV (M) (M) (K) 1.524 1.626 701.1 .699 .545 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX ELEVATION TEMP W/M**2 (M) (K) 9.59E+03 .013 728.3 .581 9.41E+03 .025 710.0 .582 .584 9.38F+03 .051 683.4 .586 9.39E+03 .076 678.6 9.39E+03 675.1 .588 . 102 9.40E+03 677.9 .590 .127 .592 9.39E+03 679.4 . 152 .604 9.37E+03 702.8 .305 .381 9.38E+03 720.1 .610 9.38E+03 .616 .457 730.8 743.3 9.37E+03 .622 .533 .628 754.3 9.38E+03 .610 9.37E+03 764.7 .634 .686 .640 9.39E+03 .762 776.8 .646 9.34E+03 789.6 .838 .651 9.34E+03 .914 799.8 9.39E+03 .991 815.6 .657 9.36E+03 1.067 .663 826.3 9.30E+03 .669 826.1 1.143 825.2 .673 8.68E+03 1.194 9.42E+03 794.8 .677 1.245 9.41E+03 .681 1.295 806.7 9.39E+03 828.4 .687 1.372 .693 9.35E+03 848.3 1.448 1.499 848.5 .697 8.66E+03 9.36E+03 1.549 837.2 .701 .705 9.34E+03

.711

.717

.720

.724

.728

.734

.740

9.30E+03

9.3:E+03

8.581+03

9.13E+03

9.23E+03

9.22E+03

9.22E+03

POINT SERIA	AL NO. 30	28.010	(TIME=	209	50 SEC)
LOOP PRESSI	JRE(PE-3)			6.23	MPA
FCV TEMPERA		CV-1T1		08.1	
LHP INLET		77.			J/KG
TEST SECTIO				1	
PRESSI				.29	MPA
SAT TI	EMP		40	15.12	
MASS	FLUX				KG/SEC-M**2
INLET	QUALITY			.580	
INLET	ENTHALPY		1.811	E+06	J/KG
QUENCH FROM	NT:				
ELEVA	TION			. 102	
VELOC	ITY		0.	0000	M/SEC
QUALI				.459	
NET LHP POL	WER TO FLU	110	. 7	109.1	W
					INFORMATION
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
1 020		250.3	700		
1.829	1.930	752.3	.722	.542	
MALL TEMPE	DATURE MEA	CHDEMENT	LOCATI	CON LI	SOLTANGORN
WALL TEMPE		XE	LUCATI		
(M)		A.E.		W/M	FLUX
(11)	(K)			M/M	2
.013	728.3	.581		9.59	C+03
.025	710.0	.582		9.41	
.051	683.4	.584		9.41	
.076	678.6	.586		9.39	
, 102	675.1	.588		9.39	
.127	677.9	.590		9.40	
. 152	679.4	.592		9.39	
, 305	702.8	.604		9.37	
. 381	720.1	.610		9.38	
.457	730.8	.616		9.38	
.533	743.3	.622		9.37	
.610	754.3	. 628		9.38	
.686	764.7	.634		9.37	
.762	776.8	.640		9.39	
.838	789.6	.646		9.34	
.914	799.8	,651		9.34	
.991	815.6	.657		9.39	
1.06/	826.3	. 663		9.36	
1.143	826.1	.669		9.30	
1.194	825.2	.673		8.68	
1.245	794.8	,677		9.42	
1.295	806.7	.681		9.41	
1.372	828.4	.687		9.39	
1.448	848.3	.693		9.35	
1.499	848.5	.697		8.66	
1.549	837.2	.701		9.36	
1.600	850.8	.705		9.34	
1.676	877.7	. 711		9.30	
1.753	895.6	.717		9.31	
1.803	893.6	.720		8.58	
1.854	368.4	.724		9.18	
1.905	877.6	.728		9.23	
1.981	908.4	.734		9.22	
2 057	005 1	760		0 22	

2.057

905.1

.740

9.22E+03

POINT SERIAL NO. 1030.010 (TIME= 179.50 SEC) 16.17 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 607.8 K LHP INLET ENTHALPY 1.549E+06 J/KG TEST SECTION: .29 MPA PRESSURE 406.10 K SAT TEMP 13.99 KG/SEC-M**2 MASS FLUX INLET QUALITY .558 1.767E+06 J/KG INLET ENTHALPY QUENCH FRONT: -, 102 M ELEVATION 0.0000 M/SEC VELOCITY . 457 QUALITY 587.2 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF TV XE XA ELEVATION (M) (M) (K) 615.8 .615 .513 1.321 1.219 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX XE ELEVATION TEMP W/M**2 (M) (K) 5.24E+03 714.1 .559 .013 5.30E+03 .559 .025 689.3 5.45E+03 .560 .051 651.0 .562 5.49E+03 639.2 .076 5.53E+03 . 102 630.7 .563 5.56E+03 . 127 630.3 .564 5.58E+03 .565 629.5 . 152 .572 5.65E+03 645.3 . 305 5.64F+03 659.0 .576 .381 5.64E+03 .457 667.5 .580 5.59E+03 678.2 .583 .533 .587 5.61E+03 687.4 .610 .590 5.58E+03 .686 696.3 .762 .594 5.60E+03 707.1 .598 5.57E+03 .838 718.4 .601 5.55E+03 .914 726.4 .991 739.6 .605 5.61E+03 5.60E+03 748.1 .609 1.067 5.52E+03 .612 1.143 748.8 5.15E+03 748.4 .614 1.194 5.59E+03 1.245 724.8 .617 5.63E+03 1.295 734.9 .619 .623 5.63E+03 1.372 753.3 .626 5.65E+03 1.448 769.4 5.21E+03 1,499 767.4 .629 5.69E+03 1.549 751.0 .631 5.68E+03 .634 1,600 761.6 .637 5.66E+03 1.676 783.6 5.68E+03 797.6 .641 1.753 5.26E+03 1.803 794.5 .643 5.66E+03 .646 772.5 1.854 781.4 .648 5.73E+03 1.905

819.8

823.6

1.981

2.057

.652

.655

5.73E+03

5.63E+03

	INEL PU	SI-CHI EAR	EKIMENI	NU. 3	U
POINT SER	HAL NO. 20	030.010	(TIME=	179.50 S	EC)
LOOP PRES	SURE(PE-3)		16	17 MPA	
	RATURE (TE-	FCV-1T)		7.8 K	
	ENTHALPY			+06 J/KG	
TEST SECT			1.2421	00 07 00	
	SURE			29 MPA	
	TEMP			10 K	
MASS	FLUX			99 KG/S	EC-M##2
INLE	T QUALITY			558	
INLE	I ENTHALPY		1.767E	+06 J/KG	
QUENCH FR	ONT:				
	ATION		*.	105 W	
	CITY			000 M/SE	C
QUAL	N. T. S.			157	
NET LHP P	OWER TO FLI	11D	58	1.2 W	
	PERATURE MI	ASUREMENT			MATION
ELEVATION	DZQF	TV	XE)	(A	
(M)	(M)	(K)			
1.524	1.626	647.5	.630 .5	13	
WALL TEMP	ERATURE ME	ASUREMENT	LOCATION	INFORM	ATION
	TEMP	XE		AT FLUX	
(M)	(K)			1/M##5	
.013	714.1	. 559	5.	24E+03	
.025	689.3	. 559		30E+03	
.051	651.0	.560		45E+03	
.076	639.2	.562		49E+03	
. 102	630.7	.563		53E+03	
. 127	630.3	.564	5.	56E+03	
. 152	629.5	. 565	5.	58E+03	
. 305	645.3	.572		65E+03	
. 381	659.0	.576		64E+03	
.457	667.5	.580	2,	64E+03 59E+03	
.610	678.2	.587		61E+03	
.686	696.3	590	5	58E+03	
.762	707.1	.594	5	60E+03	
.838	718.4	.598		57E+03	
.914	726.4	,601	5.	55E+03	
.991	739.6	. 605	5.	61E+03	
1.067	748.1	.609		60E+03	
1.143	748.8	.612	5.	52E+03	
1.194	748.4	.614	5.	15E+03	
1.245	724.8	.617		59E+03	
1.295	734.9	.619		63E+03	
1.372	753.3	.623		63E+03	
1.448	769.4	.626		65E+03	
1.499	767.4	.629		21E+03	
1.549	751.0	.631	5.	69E+03	
1.600	761.6	.634	2.	68E+03 56E+03	
1.676	783.6	.637	2.	68E+03	
1.753	797.6	.643		26E+03	
1.854	772.5	. 646		66E+03	
1.905	781.4			73E+03	
1.905	910.4	. 040		735+03	

1.981

2.057

819.8

823.6

. 652

.655

5.73E+03

5.63E+03

POINT SERIAL NO. 2031.010 (TIME= 239.50 SEC)

POINT SERI		730.010			
LOOP PRESS				6.17	
FCV TEMPER		CA-11)		07.8	
LHP INLET			1.549	E+06	J/KG
TEST SECTION					
PRESS			4.0		MPA
SAT T				6.10	
MASS					KG/SEC-M**
	QUALITY			.558	
	ENTHALPY		1.767	E+06	J/KG
QUENCH FRO					
ELEVA				. 102	
VELOC					M/SEC
QUALI				.457	
NET LIP PO	WER TO FLI	110	,	87.2	M
					NEORMATION
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
1.829	1,930	680.5	644	.511	
HALL TEMPE		ASUREMENT			FLUX
and the second second	TEMP	A.E.		W/M	
(M)	(K)			M/M	
.013	714.1	.559		5.241	
.025	689.3	.559		5.301	
.051	651.0	.560		5.451	
.076	639.2	.562		5.491	
. 102	630.7	.563		5.531	
. 127	630.3	. 564		5.56	
. 152	629.5	. 565		5.581	
. 305	645.3			5.651	
. 381	659.0			5.641	
.457	667.5			5.641	
.533	678.2	.583		5.591	
.610	687.4	.587		5.611	E+03
.686	696.3	.590		5.581	E+03
.762	707.1	.594		5.60	
.838	718.4			5.571	
.914	726.4			5.55	
.991	739.6			5.611	
1.067	748.1			5.60	
1.143	748.8			5.52	E+03
1,194	748.4			5.15	E+03
1.245	724.8			5.59	
1.295	734.9			5.63	
1.372	753.3			5.63	E+03
1.448	769.4			5.65	
1.499	767.4	.629		5.21	
1.549	751.0			5.69	
1.600	761.6			5.68	
1.676	783.6	.637		5.66	E+03
1.753	797.6			5.68	E+03
1.803	794.5			5.26	E+03
1.854	772.5	.646		5.66	
1.905	781.4			5.73	E+03
1.981	819.8	.652		5.73	E402
1.201	017.0	. 0.76		3.13	1.03

	1000				
LOOP PRESSI	DRE(PE-3)			16.17 MPA	
FCV TEMPERA		CV-1T1		608.5 K	
LHP INLET I			1.55	3E+06 J/KG	
TEST SECTIO			1.72	31.00 37 110	
PRESSI				. 30 MPA	
SAT II			I to	06.12 K	
MASS I				13.77 KG/SEC-M*	# 25
	QUALITY			.579	-
	ENTHALPY		1.01	3E+06 J/KG	
QUENCH FROM				100 11	
ELEVA				102 M	
VELOC			0	.0000 M/SEC	
QUALI				.459	
NET LHP POY	HER TO FLU	ID		696.0 W	
WARON TEMP	DATHER ME	ACHDEMENT	LOCA	TION INFORMATIO	N
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)	A.E.	00	
(14)	(14)	()			
1.524	1,626	604.6	.641	.539	
		content of		LON INCODMATION	
			LUCAI	ION INFORMATION	
ELEVATION	TEMP	XE		W/M**2	
(M)	(K)			W/MZ	
.013	696.2	.580		4.69E+03	
.025	669.2	.580		4.77E+03	
.051	625.7	.581		4.78E+03	
.076	610.6	,582		4.80E+03	
, 102	600.2	. 583		4.84E+03	
. 127	598.1	. 584		4.83E+03	
. 152	596.1	. 585		4.84E+03	
. 305	607.5	.592		4.81E+03	
. 381	618.8	. 595		4.81E+03	
.457	625.4	.598		4.83£+03	
.533	634.3	.601		4.82E+03	
.610	642.2	.604		4.78E+03	
.686	649.5	.607		4.82E+03	
.762	658.7	.610		4.77E+03	
.838	668.5	.614		4.78E+03	
.914	674.9	.617		4.77E+03	
.991	686.3	.620		4.73E+03	
1.067	693.5	.623		4.72E+03	
1.143	692.4	.626		4.88E+03	
1.194	683.7	.628		4.35E+03	
1.245	663.7	.630		4.79E+03	
1.295	681.5	.632		4.77E+03	
1,372	699.9	.635		4.72E+03	
1.448	713.8	.638		4.68E+03	
1.499	712.8	.640		4.29E+03	
1.549	705.0	.642		4.66E+03	
1,600	717.1	.644		4.64E+03	
1.676	738.4	.647		4.64E+03	
1.753	752.0	.650		4.63E+03	
1.803	748.7	.652		4.20E+03	
1.854	728.2	.654		4.74E+03	
1.905	738.4	.656		4.63E+03	
1.981	766.2	.659		4.64E+03	
2.057	775.4	.662		4.70E+03	

1.753

1.803

1.854

1.905

1.981

2.057

738.4

752.0

748.7

728.2

738.4

766.2

775.4

.647

.650

.652

.654

.656

.659

.662

4.64E+03

4.63E+03

4.20E+03 4.74E+03

4.63E+03

4.64E+03

4.70E+03

```
POINT SERIAL NO. 3031.010 (TIME= 239.50 SEC)
LOOP PRESSURE (PE-3)
                                   16.17 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                   608.5 K
LHP INLET ENTHALPY
                               1.553E+06 J/KG
TEST SECTION:
     PRESSURE
                                     .30 MPA
     SAT TEMP
                                  406.12 K
     MASS FLUX
                                  13.77 KG/SEC-M**2
     INLET QUALITY
                                    .579
     INLET ENTHALPY
                               1.813E+06 J/KG
QUENCH FRONT:
     ELEVATION
                                   -. 102 M
     VELOCITY
                                  0.0000 M/SEC
     QUALITY
                                   . 459
NET THE POWER TO FLUID
                                   696.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             DZQF
                      TV
                              XE XA
  (M)
             (M)
                      (K)
1.829
            1.930
                     638.5
                             .653 .535
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                    HEAT FLUX
               (K)
                                     W/M##2
  (m)
  .013
              696.2
                          .580
                                    4.69E+03
  .025
              669.2
                          .580
                                    4.77E+03
  .051
              625.7
                          .581
                                    4.78E+03
  .076
              610.6
                          .582
                                    4.80E+03
  .102
              600.2
                          .583
                                    4.84E+03
  .127
              598.1
                          .584
                                    4.83E+03
  . 152
              596.1
                          .585
                                    4.84E+03
  .305
              607.5
                          .592
                                    4.81E+03
  .381
              618.8
                          .595
                                    4.81E+03
  .457
              625.4
                          .598
                                    4.83E+03
  .533
              634.3
                          .601
                                    4.82E+03
  .610
              642.2
                          .604
                                    4.78E+03
  .686
              649.5
                          .607
                                    4.82E+03
  .762
              658.7
                         .610
                                    4.77E+03
  .838
              668.5
                         .614
                                    4.78E+03
  .914
              674.9
                         .617
                                    4.77E+03
  .991
              686.3
                          .620
                                    4.73E+03
              693.5
 1.067
                          .623
                                    4.72E+03
 1.143
              692.4
                          . 626
                                    4.88E+03
 1.194
              683.7
                          .628
                                    4.35E+03
 1.245
              663.7
                          .630
                                    4.79E+03
 1.295
                                    4.77E+03
              681.5
                          .632
 1.372
              699.9
                          .035
                                    4.72E+03
                         .638
 1.448
              713.8
                                    4.68E+03
 1.499
              712.8
                         .640
                                    4.29E+03
 1.549
              705.0
                          .642
                                    4.66E+03
 1.600
              717.1
                          .644
                                    4.64E+03
```

INEL POST-CHE EXPERIMENT NO. 31

POINT SERIE	AL NO. 20	32.010	(TIME=	154	.50 SEC)
LOOP PRESSI	URF(PF=3)		14	6.27	MPA
FCV TEMPER		CV-1T)		08.2	
LHP INLET			1.551		
TEST SECTIO	STATE OF THE PARTY				471.00
PRESSI				30	MPA
SAI II	20.5.120		bO	6.20	
MASS					KG/SEC-M**
	QUALITY			573	
	ENTHALPY		1.801		
QUENCH FROM					
ELEVA				. 102	M
VELOG					M/SEC
QUAL I				458	
NET LHP PO		10		71.6	
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCAT	ION	INFORMATION
ELEVATION	DZQF		XE	XA	
(M)	(M)	(K)			
1.524	1.626	571.9	.617	.533	
MALL TEMPE	DATURE MEA	CUDEMENT	LOCATIO	ON LE	NEORMATION
ELEVATION		XE			FLUX
(M)	(K)	AL		W/M	
(14)	()			11/11	
.013	685.7	.574		3.61	E+03
.025	655.9	.574		3.491	E+03
.051	607.0			3.351	
.076	588.6	.576		3.391	E+03
. 102	576.4	.576		3.361	E+03
.127	572.7	.577		3.431	E+03
. 152	570.0	.578		3.381	C+03
. 305	577.8	.582		3.441	E+03
. 381	587.3	.585		3.411	E+03
.457	593.1	.587		3.421	E+03
.533	601.0	. 589		3.411	E+03
.610	607.5	.591		3.421	E+03
.686	614.2	. 593		3.431	
.762	622.2	. 596		3.431	
.838	630.4	.598		3.431	
.914	636.4	.600		3.391	
.991	646.1	.602		3.381	
1.067	652.0	.604		3.451	
1.143	651.8	.607		3.351	
1.194	640.2	,608		3.081	
1.245	620.6	,609		3.391	
1.295	640.0	.611		3.461	
1.372	657.4	.613		3.391	
1.448	669.5	.615		3.401	
1.448	667.6	.617		3.091	
	658.6	.618		3.358	
1.549					
1.600	670.3	.619		3.371	
1.676	689.6	.622		3.391	
1.753	701.3	.624		3.381	
1.803	696.7	. 625		3.091	
1.854	677.3	.627		3.371	
1.905	688.0	.628		3.431	+03

1.981

2.057

716.4

730.1

.630

.632

3.36E+03

3.35E+03

POINT SERIAL NO. 1036.010 (TIME= 274.50 SEC)

1.803

1.854

1.905

1.981

2.057

695.7

676.5

687.1

715.5

729.2

.628

.629

.630

.633

.635

```
POINT SERIAL NO. 3032.010 (TIME= 179.50 SEC)
                                16.27 MPA
LOOP PRESSURE(PE-3)
                                608.1 K
FCV TEMPERATURE (TE-FCV-1T)
                            1.550E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                .30 MPA
    PRESSURE
                            406.25 K
    SAT TEMP
                              13.85 KG/SEC-M**2
.575
    MASS FLUX
    INLET QUALITY
                            1.805E+06 J/KG
    INLET ENTHALPY
QUENCH FRONT:
                                -. 102 M
    ELEVATION
                             0.0000 M/SEC
    VELOCITY
                                .458
    QUALITY
NET LHP POWER TO FLUID
                                683.2 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                  TV
                            XE XA
ELEVATION
          DZQF
                    (K)
            (M)
 (M)
           1.930 597.0 .628 .531
1.829
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                 HEAT FLUX
ELEVATION
             TEMP
                       XE
                                  W/M##2
 (M)
              (K)
                       .576
             684.8
                                  3.50E+03
  .013
                        .576
                                 3.41E+03
 .025
             655.1
  .051
                        .577
                                  3.39E+03
             606.3
                               3.41E+03
                        .578
  .076
             587.9
                                  3.42E+03
             575.7
                        .578
  . 102
                                  3.45E+03
  .127
             572.0
                        .579
                                  3.44E+03
  .152
             569.3
                        .580
                                  3.46E+03
  . 305
             577.0
                        .584
                        .587
                                  3.44E+03
  .381
             586.5
                        .589
                                  3.45E+03
  .457
             592.3
                                  3.44E+03
  .533
             600.2
                        .591
                                  3.42E+03
                        .593
  .610
             606.7
                                  3.44E+03
                        .596
  .686
             613.4
  .762
             621.3
                        .598
                                  3.43E+03
                                3,42E+03
             629.5
                        .600
  .838
                                3.41E+03
                        .602
  .914
             635.6
                               3.41E+03
                        .604
  .991
              645.2
                        .607
                                3.43E+03
3.38E+03
 1.067
             651.1
 1.143
             651.1
                        .609
                                 3.09E+03
 1.194
             639.5
                        .610
                                3.41E+03
                        .612
 1.245
             619.9
                        .613
                                3.44E+03
             639.0
 1,295
                                  3.43E+03
 1.372
              656.4
                        .615
                                 3.43E+03
 1.448
              668.5
                        .618
                                3.26E+03
                        .619
 1.499
              666.3
                                  3.43E+03
                        .620
              657.9
 1.549
                                  3.36E+03
                        .622
 1.600
              669.5
                        .624
                                 3.39E+03
 1.676
              688.7
 1.753
              700.4
                        .626
                                  3.38E+03
```

3.07E+03

3.32E+03

3.37E+03

3.39E+03

3.33E+03

LOOP PRESSI	URE(PE-3)		16.06	MPA
FCV TEMPERA		CV-11)	610.8	
THE INLET I			1.570E+06	J/KG
TEST SECTIO				
PRESSI				MPA
SAT TI			423.64	
MASS I				KG/SEC-M**2
	QUALITY		. 552	1.000
	ENTHALPY		1.799E+06	J/KG
QUENCH FROM			102	
VELOC			0.0000	
QUALI			. 443	M/ SEG
NET LHP POL		(D	823.2	W
	HEN TO FED		U. J. L	
VAPOR TEMPI	ERATURE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF		XE XA	
(M)	(M)	(K)		
1.232	1.334	777.9	.731 .543	
WALL TEMPER	RATURE MEA	SUREMENT I	OCATION II	NEORMATION
ELEVATION		XE		FLUX
(M)	(K)		W/M	
1910				
.013	760.9	.553	2.23	+04
.051	759.5	.559	2.23	+04
.063	762.5	.561	2.23	E+()4
.089	774.3	.565	2.24	E+04
. 114	777.5	.568	2.24	+04
. 140	783.5	.572	2.24	1+04
. 165	775.8	.576		
. 318	831.3	.598	2.25	E+04
. 394	854.7	.609	2.24	
.470	868.6	.620		
.546	884.2	.631		
.622	899.2	.642	2.24	
.698	911.1	.653	2.24	
.775	926.2	.665	2,24	
.851	938.7	.676	2.24	
.927	951.4	.687	2.23	
1.003	971.8	.698	2.22	
1.079	984.5	. 709	2.22	
1.156	980.5	. 720	2.221	
1.206	983.4	.727	2.221	
1.257	949.0	. 734	2.07	
1.308	965.0	.741	2.221	
1.384	980.9	.752	2.22	
1.461	1007.1	. 763		
1.511	1006.8	.770	2.06	
1.562	994.3	.777	2.21	
1.613	1011.1	. 784	2.21	
1.689	1029.8	. 795	2.201	
1.765	1048.3	.806	2.20	
1.816	1045.3	.813		
1.867	1013.4	.820	2.211	
1.918	1039.3	.828		
1.994	1036.8	.839	2.201	
2.070	996.1	.849	2.221	704

almoster atomic				
POINT SERI	AL NO. 20	36.010	(TIME= 274	.50 SEC)
LOOP PRESS	HDE I DE - 31		16.06	MPA
		CV-1T1	610.8	
FCV TEMPER		CA-111	1.570E+06	
LHP INLET			1,5701,700	37 80
TEST SECTI			1.8	MPA
PRESS			423.64	
SAT T				KG/SEC-M**2
MASS			.552	
	QUALITY.		1.799E+06	
	ENTHALPY		1.1996+00	J/NO
QUENCH FRO			1/12	
ELEVA			0.0000	
VELOC				
QUALI			. 443	
NET LHP PO			823.2	
			LOCATION	INFORMATION
ELEVATION		TV	XE XA	
(M)	(M)	(K)		
		939.0	776 550	
			.774 .549	
WALL TEMPE	RATURE MEA	ASUREMENT	LOCATION I	NEORMATION
ELEVATION		XE		FLUX
(M)	(K)		W/M	2
.013	760.9	.553	2.23	
.051	759.5	.559	2 23	E+04
	0.00			
-063	762.5	561	2.23	E+04
.063	762.5	561	2.23	E+04 E+04
.089	774.3	.561 .565	2.23 2.24 2.24	E+04 E+04
.089	774.3	.561 .565 .568	2.23 2.24 2.24	E+04 E+04
.089	774.3 777.5 783.5	.561 .565 .568	2.24 2.24 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165	774.3 777.5 783.5 775.8	.561 .565 .568 .572 .576	2.23 2.24 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318	774.3 777.5 783.5 775.8 831.3	.561 .565 .568 .572 .576	2.23 2.24 2.24 2.24 2.24 2.25	E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318	774.3 777.5 783.5 775.8 831.3 854.7	.561 .565 .568 .572 .576 .598	2.23 2.24 2.24 2.24 2.25 2.25	E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394	774.3 777.5 783.5 775.8 831.3 854.7 868.6	.561 .565 .568 .572 .576 .598 .609	2.23 2.24 2.24 2.24 2.25 2.24 2.25	E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2	.561 .565 .568 .572 .576 .598 .609	2.23 2.24 2.24 2.24 2.25 2.24 2.25	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2	. 561 565 568 572 576 598 609 620 631	2.23 2.24 2.24 2.24 2.25 2.24 2.25 2.24 2.25	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2	. 561 . 565 . 568 . 572 . 576 . 598 . 609 . 620 . 631 . 642	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2	.561 565 568 572 576 598 609 620 631 642 653	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
. 089 . 114 . 140 . 165 . 318 . 394 . 470 . 546 . 622 . 698 . 775 . 851	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7	.561 .565 .568 .572 .576 .598 .609 .631 .642 .653 .665	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5	.561 565 568 572 576 598 609 620 631 642 653 665 676	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5	. 561 . 565 . 568 . 572 . 576 . 598 . 609 . 620 . 631 . 645 . 665 . 676 . 688 . 709 . 720	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5	. 561 . 565 . 568 . 572 . 576 . 598 . 609 . 620 . 631 . 645 . 665 . 676 . 688 . 709 . 720	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 .1003 1.079 1.156 1.206 1.257	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.5	. 561 . 565 . 568 . 572 . 576 . 598 . 609 . 620 . 631 . 642 . 653 . 665 . 676 . 687 . 720 . 720	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206 1.257 1.308	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665 .709 .720 .727 .734	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665 .676 .687 .709 .720 .727 .734	2.23 2.24 2.24 2.25 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .003 1.079 1.156 1.266 1.257 1.308 1.384 1.384	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 911.1 926.2 938.7 951.8 984.5 980.5 980.9 965.0 980.9	. 561 . 565 . 568 . 572 . 576 . 598 . 609 . 620 . 631 . 645 . 665 . 676 . 688 . 709 . 720 . 727 . 734 . 741 . 752	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.4	. 561 . 565 . 568 . 572 . 576 . 699 . 620 . 631 . 642 . 653 . 665 . 676 . 687 . 709 . 720 . 727 . 734 . 741 . 752 . 763 . 770	2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9 1007.1 1006.8 994.3	. 561 . 565 . 568 . 572 . 578 . 699 . 620 . 631 . 642 . 653 . 665 . 676 . 687 . 720 . 727 . 734 . 741 . 752 . 763 . 770	2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 .003 1.079 1.156 1.206 1.257 1.308 1.461 1.511 1.562 1.613	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 911.1 926.2 938.7 951.8 984.5 980.5 980.5 980.9 965.0 980.9 980.9	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665 .676 .687 .709 .727 .734 .741 .741 .752 .763 .770	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 .1003 1.079 1.156 1.206 1.257 1.308 1.384 1.384 1.461 1.511 1.562 1.613 1.689	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9 1007.1 1006.8 994.3 1011.1 1029.8	. 561 . 565 . 568 . 572 . 576 . 598 . 609 . 620 . 631 . 645 . 665 . 676 . 688 . 709 . 720 . 727 . 734 . 741 . 752 . 763 . 777 . 784	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206 1.206 1.257 1.308 1.384 1.461 1.562 1.613 1.562 1.613 1.689 1.765	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9 1007.1 1006.8 994.3 1011.1	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665 .676 .687 .727 .727 .734 .741 .752 .763 .777 .784 .777	2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9 1007.1 1006.8 994.3 1011.1 1029.8 1048.3	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665 .676 .687 .720 .727 .734 .741 .752 .763 .770 .777 .784 .795 .806 .813	2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 .003 1.079 1.156 1.257 1.308 1.384 1.384 1.461 1.511 1.511 1.562 1.689 1.765 1.816 1.867	774.3 777.5 783.5 775.8 831.3 854.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9 1006.8 994.3 1011.1 1029.8 1048.3 1045.3	.561 .565 .568 .572 .576 .598 .609 .620 .631 .645 .665 .676 .687 .720 .727 .734 .741 .752 .763 .777 .777 .777 .777 .778 .795 .806 .813	2.23 2.24 2.24 2.25 2.25 2.24 2.25 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 .156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	774.3 777.5 783.5 775.8 831.3 854.7 868.6 884.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 980.5 980.5 980.5 980.5 980.5 980.5 94.3 1011.1 1029.8 1048.3 1045.3 1013.4	.561 .565 .568 .572 .576 .598 .609 .620 .631 .645 .665 .676 .688 .709 .720 .727 .734 .741 .752 .763 .777 .784 .795 .806 .813 .820 .828	2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.089 .114 .140 .165 .318 .394 .470 .546 .622 .698 .775 .851 .927 .003 1.079 1.156 1.257 1.308 1.384 1.384 1.511 1.511 1.512 1.613 1.689 1.765 1.816 1.867	774.3 777.5 783.5 775.8 831.3 854.2 899.2 911.1 926.2 938.7 951.4 971.8 984.5 980.5 983.4 949.0 965.0 980.9 1006.8 994.3 1011.1 1029.8 1048.3 1045.3	.561 .565 .568 .572 .576 .598 .609 .620 .631 .642 .653 .665 .676 .687 .720 .727 .734 .741 .752 .763 .770 .777 .784 .795 .806 .813 .820 .828	2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.24 2.24	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04

	INEL POST-	CHF EXPER	IMENT NO.	36
POINT SERIA	AL NO. 3036	.010 (T	IME= 274.5	O SEC)
LOOP PRESSE			16.06 M	PA
FCV TEMPERA	ATURE (TE-FCV	(-11)	610.8 K	
LHP INLET I	ENTHALPY		.570E+06 J	/KG
TEST SECTION				
PRESSI			.48 M	
SAT TI			423.64 K	
MASS	QUALITY		.552	G/SEC-M**
	ENTHALPY	,	.799E+06 J	/KG
QUENCH FROM		100	. 1231.100 3	,
ELEVA			102 M	
VELOC			0.0000 M	
QUAL I	TY.		.443	
NET LHP POL	WER TO FLUID		823.2 W	
VAPOR TEMPI	ERATURE MEAS	HREMENT 1	OCATION IN	FORMATION
ELEVATION			E XA	OH PHI FOR
(M)	(M)	(K)		
1.842	1.943 8	98.7 .8	17 .559	
	RATURE MEASU	REMENT LO	CATION INFO	DRMATION
ELEVATION	TEMP	XE	HEAT FI	LUX
(M)	(K)		W/M**	2
0.1.2	200 0		0.005	
.013	760.9 759.5	.553	2.23E+0	
.063	762.5	.561	2.23E+	
.089	774.3	.565	2.24E+	
.114	777.5	.568	2.241+1	
. 140	783.5	.572	2.24E+0	
. 165	775.8	.576	2.24E+0	
.318	831.3	.598	2.25E+0)4
. 394	854.7	.609	2.24E+1	
.470	868.6	.620	2.24E+(
.546	884.2	.631	2.25E+0	
.622	899.2	.642	2.24E+0	
.698	911.1	.653	2.24E+0	314
.775	926.2 938.7	.665	2.24E+0	
.927	951.4	.687	2.238+	
1.003	971.8	.698	2.22E+(
1.079	984.5	.709	2.22E+0	
1.156	980.5	.720	2.22E+0	
1.206	983.4	.727	2.22E+0	
1.257	949.0	. 734	2.07E+6	
1.308	965.0	. 741	2.22E+0	
1.384	980.9	.752	2.22E+0	
1.461	1007.1	. 763	2.21E+0	
1.511	1006.8	770	2.06E+6 2.21E+6	
1.562	994.3	.777	2.21E+0	
1.689	1029.8	.795	2.20E+0	
1.765	1048.3	.806	2.20E+0	
1.816	1045.3	.813	2.05E+0	
1.867	1013.4	.820	2.21E+0	14
1.918	1039.3	. 828	2.20E+0	
1.994	1036.8	.839	2.20E+0	
2.070	996.1	.849	2.22E+0)11

POINT SERIA	NL NO. 10	37.010	(TIME	= 549	.50 SEC)
LOOP PRESSU	JRE (PE-3)			16.13	MPA
FCV TEMPERA		CV-11)		609.0	
LUP INLET E				7E+06	
TEST SECTIO			1.22	12.00	0710
PRESSU				20	MPA
SAT II			In the	05.60	
MASS I			**		KG/SEC-M##2
	QUALITY			.539	
	ENTHALPY		1 72	6E+06	
QUENCH FROM			1.16	05.400	3/10
ELEVAT				102	W
VELOCI					M/SEC
QUALIT				.462	H/ SEC
NET LUP POV		LD		459.9	M
NET CAP POP	NEW TO PLO	10		439.9	*
					INFORMATION
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
1 020	1 276	202 6	715	500	
1.232	1.334	792.6	.715	.521	
WALL TEMPER			LOCAT		
	TEMP	XE			FLUX
(M)	(K)			W/M	**2
.013	775.2	. 541		1.72	E+04
.051	777.6	.547		1.72	
.063	782.5	. 549		1.72	
.089	793.3	.552		1.72	
.114	796.3	.556		1.72	
, 140	801.9	.560		1.72	
. 165	790.8	. 563		1,72	
.318	843.3	.585		1.72	
. 394	868.6	.596		1.71	
470	883.7	.607			E+04
.546	899.5	.618			E+64
.622	914.2	.629			E+04
.698	925.7	.639			E+04
.775	940.5	.650		1.70	
.851	953.0	.661			E+04
.927	965.9	.672			E+04
1.003	987.3	.683			E+04
	201.3				
1 070	1000 5	601	6	1 60	
1.079	1000.5	. 693		1.68	
1.156	994.5	. 704		1.69	E+04
1.156	994.5 993.5	.704		1.69	E+04 E+04
1.156 1.206 1.257	994.5 993.5 954.3	.704		1.69 1.68 1.57	E+04 E+04 E+04
1.156 1.206 1.257 1.308	994.5 993.5 954.3 969.3	.704 .711 .718 .725	3	1.69 1.68 1.57 1.69	E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384	994.5 993.5 954.3 969.3 983.4	.704 .711 .718 .725		1.69 1.68 1.57 1.69 1.69	E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461	994.5 993.5 954.3 969.3 983.4 1011.8	.704 .711 .718 .725 .736	3	1.69 1.68 1.57 1.69 1.69	E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3	.704 .711 .718 .725 .736 .746	3	1.69 1.68 1.57 1.69 1.69 1.68	E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 999.4	.704 .711 .718 .725 .736 .746 .753		1.69 1.68 1.57 1.69 1.69 1.68 1.56	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613	994.5 993.5 954.3 969.3 983.4 1012.3 999.4 1014.1	. 704 . 711 . 718 . 725 . 736 . 746 . 760 . 760	3 3 3 3 7	1.69 1.69 1.69 1.69 1.68 1.56 1.68	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 999.4 1014.1 1029.1	. 704 . 711 . 718 . 725 . 736 . 746 . 753 . 760	3 3 3 7 3 3	1.69 1.69 1.69 1.69 1.68 1.56 1.68	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 999.4 1014.1 1029.1 1047.5	. 704 . 711 . 718 . 725 . 736 . 746 . 753 . 766 . 767 . 778	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.69 1.69 1.69 1.69 1.68 1.68 1.68 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 1014.1 1029.1 1047.5	. 704 .711 .718 .725 .736 .746 .753 .760 .767 .778		1.69 1.68 1.57 1.69 1.69 1.68 1.68 1.68 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816 1.867	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 999.4 1014.1 1047.5 1044.5	. 704 .711 .718 .725 .736 .746 .753 .760 .767 .778 .789	3	1.69 1.68 1.57 1.69 1.68 1.56 1.68 1.67 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1. 156 1. 206 1. 207 1. 308 1. 384 1. 461 1. 511 1. 562 1. 613 1. 689 1. 765 1. 816 1. 867 1. 918	994.5 993.5 954.3 969.3 983.4 1011.3 999.4 1014.1 1029.1 1047.5 1044.5 1013.5	. 704 . 711 . 718 . 725 . 736 . 746 . 753 . 766 . 767 . 778 . 789 . 799 . 802	3	1.69 1.68 1.57 1.69 1.68 1.68 1.67 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816 1.867	994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 999.4 1014.1 1047.5 1044.5	. 704 . 711 . 718 . 725 . 736 . 746 . 753 . 766 . 767 . 778 . 789 . 799 . 802	7	1.69 1.68 1.57 1.69 1.68 1.56 1.68 1.67 1.67 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04

POINT SERIA	NO. 2	037.010	(TIME= 549	.50 SEC)
LOOP PRESSU	IRE(PE-3)		16.13	MPA
FCV TEMPERA	TURE (TE-	FCV-1T)	609.0	K
LHP INLET I			1.557E+06	
TEST SECTIO				
PRESSI			29	MPA
SAT II			405.60	
MASS I				KG/SEC-M**2
	QUALITY		.539	
	ENTHALPY		1.726E+06	
QUENCH FROM			1.1202.00	07 600
ELEVA!			102	м
VELOC	The second second		0.0000	
QUALIT			.462	
	VER TO FL	UID	459.9	
WARRE TEMPI	DATURE M	FACHDEMENT	LOCATION	INFORMATION
ELEVATION	DZQF	IV	XE XA	ini omarion
	(M)	(K)	AE AA	
(M)	(11)	101		
1.537	1,638	851.1	.757 .529	
		ACUDEMENT	LOCATION I	NEODMATION
WALL TEMPER			DUCATION	FLUX
ELEVATION	TEMP	XE		The second second
(M)	(K)		W/M	
0.17	775.2	.541	1.72	E +OIL
.013	777.6		1.72	
.051	782.5			
.063			1.72	
.089	793.3			
. 114	796.3			
. 140	801.9			E+04
. 165	790.8		1.72	
.318	843.3		1.71	
. 394	868.6			
.470	883.7		1.71	
.546	899.5			E+04
.622	914.2		- 277	E+04
.698	925.7			
.775	940.5			E+04
.851	953.0			E+04
.927	965.9			E+04
1.003	987.3			E+04
1.079	1000.5	.693		E+04
1.156	994.5			1+04
1.206	993.5			E+04
1.257	954.3			E+04
1.308	969.3			E+04
1.384	983.4			E+04
1.461	1011.8			E+04
1.511	1012.3			E+04
1.562	999.4	.760	1.68	E+04
1.613	1014.1	.767	1.68	E+04
1.689	1029.1			E+04
1.765	1047.5		1.67	E+04
1.816	1044.5	. 795		E+04
1.867	1013.5	.802	1.67	E+04
1.918	1041.7			E+04
1.994	1061.8			E+04
2.070	1010.4			E+04

DOLLET SERVING				
PUINT SERT	AL NO. 30	37.010	(TIME= 549	.50 SEC)
LOOP PRESS	URE(PE-3)		16.13	MPA
FCV TEMPER		CV-111	609.0	
LHP INLET			1.557E+06	
TEST SECTION				
PRESS			. 29	MPA
SAT T			405.60	
MASS				KG/SEC-M##2
	QUALITY		.539	
	ENTHALPY		1.726E+06	
QUENCH FROM			T. PLUL TOO	0710
ELEVA			-, 102	М
VELOG			0.0000	
QUALI			.462	117 01.0
NET LIP PO		HD GH	459.9	W
VAPOR TEMP	ERATHRE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF	IV	XE XA	THE OWNER LON
(M)	(M)	(K)	AL AM	
(11)	(11)	()		
1.842	1.943	900 7	.799 .539	
1.046	1.343	300.1		
WALL TEMPE				
ELEVATION		XE		FLUX
(M)	(K)		W/M	4.#2
.013	775.2	.541	1.72	F+Oh
.051	777.6	.547		
.063	782.5	.549		
.089	793.3	.552		
. 114	796.3	.556		
. 140	801.9	.560		
. 165	790.8	.563		
. 318	843.3	.585		
. 394	868.6	.596	1.71	
		.607		
.470	883.7		1.71	
.546	899.5	.618		
.622	914.2	.629		
.698	925.7	.639		
	940.5	.650	1.70	F +()14
.119		2.5 4	4 75.0	E a rate
.851	953.0	.661		Berlin Service
.851	965.9	.672	1.69	E+04
.851 .927 1.003	965.9 987.3	.672	1.69	E+04 E+04
.851 .927 1.003 1.079	965.9 987.3 1000.5	.672 .683 .693	1.69 1.69 1.68	E+04 E+04
.851 .927 1.003 1.079 1.156	965.9 987.3 1000.5 994.5	.672 .683 .693	1.69 1.69 1.68 1.69	E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206	965.9 987.3 1000.5 994.5 993.5	.672 .683 .693 .704	1.69 1.69 1.68 1.69	E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206	965.9 987.3 1000.5 994.5 993.5 954.3	.672 .683 .693 .704 .711	1.69 1.69 1.68 1.69 1.68	E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308	965.9 987.3 1000.5 994.5 993.5 954.3 969.3	.672 .683 .693 .704 .711 .718	1.69 1.69 1.68 1.69 1.68 1.57	E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 983.4	.672 .683 .693 .704 .711 .713 .725	1.69 1.69 1.68 1.69 1.68 1.57 1.69	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 983.4 1011.8	.672 .683 .693 .704 .711 .718 .725 .736	1.69 1.68 1.69 1.68 1.57 1.69	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 983.4	.672 .683 .693 .704 .711 .713 .725	1.69 1.69 1.68 1.69 1.68 1.57 1.69	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 983.4 1011.8 1012.3	.672 .683 .693 .704 .711 .713 .725 .736 .746	1.69 1.69 1.68 1.69 1.68 1.57 1.69 1.68	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613	965.9 987.3 1000.5 994.5 993.5 969.3 969.3 969.4 1011.8 1012.3 999.4	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760	1.69 1.69 1.68 1.67 1.68 1.57 1.69 1.68 1.56	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 999.4 1014.1 1029.1	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760	1.69 1.69 1.68 1.68 1.57 1.69 1.68 1.56 1.68	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613	965.9 987.3 1000.5 994.5 993.5 954.3 983.4 1011.8 1012.3 999.4 1014.1 1029.1 1047.5	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760 .767 .778	1.69 1.69 1.68 1.69 1.68 1.56 1.69 1.68 1.56	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689	965.9 987.3 1000.5 994.5 993.5 969.3 969.3 969.4 1011.8 1012.3 999.4	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760	1.69 1.69 1.68 1.69 1.68 1.56 1.69 1.68 1.56	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1,003 1,079 1,156 1,206 1,257 1,308 1,384 1,461 1,511 1,562 1,613 1,689 1,765	965.9 987.3 1000.5 994.5 993.5 954.3 983.4 1011.8 1012.3 999.4 1014.1 1029.1 1047.5	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760 .767 .778	1.69 1.69 1.68 1.67 1.68 1.57 1.69 1.68 1.68 1.68	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.562 1.613 1.689 1.765 1.816	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 969.4 1011.8 1012.3 999.4 1014.1 1029.1 1047.5 1044.5	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760 .767 .778 .789	1.69 1.69 1.68 1.67 1.68 1.57 1.69 1.68 1.56 1.68 1.67 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.126 1.257 1.308 1.384 1.461 1.511 1.561 1.613 1.689 1.765 1.816	965.9 987.3 1000.5 994.5 993.5 954.3 969.3 983.4 1011.8 1012.3 1014.1 1029.1 1047.5	.672 .683 .693 .704 .711 .713 .725 .736 .746 .753 .760 .767 .778 .789 .795	1.69 1.69 1.68 1.68 1.57 1.69 1.68 1.68 1.68 1.67 1.67	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04

POINT SERIA	L NO. 10	38.010	(TIME= 399.	50 SEC)
LOOP PRESSU	DE (PE = 3)		16.11	MPA
FCV TEMPERA		CV-11)	608.4	
LHP INLET E			1.553E+06	
TEST SECTIO				
PRESSU			.29	MPA
SAT TE			405.50	K
MASS F	LUX		13.14	KG/SEC-M**2
INLET	QUALITY		.527	
INLET	ENTHALPY		1.698E+06	J/KG
QUENCH FROM	IT:			
ELEVAT			102	
VELOCI			0.0000	M/SEC
QUALIT			.460	**
NET LHP POW	ER TO FLU	10	372.0	н
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	NEORMATION
ELEVATION	DZQF	TV	XE XA	
(M)	(M)	(K)		
1.232	1.334	770.2	.675 .503	
WALL TEMPER	ATURE MEA	SUREMENT	LOCATION II	FORMATION
ELEVATION	TEMP	XE	HEAT	FLUX
(M)	(K)		W/M	**2
0.1.2	766.6	.529	1.371	+04
.013	765.5	.533	1.378	
.063	761.6	.535	1.371	
.089	766.2	.538		
. 114	766.2	.541		
. 140	770.2	.544	1.371	
165	760.0		1.361	+04
.318	805.7	.566	1.371	+04
. 394	829.3	.575	1.378	
.470	843.1	.584		+04
.546	858.1	.593		
.622	872.1	.602		
.698	883.2	.612	1.361	
.775	897.7	.621	1.358	
.851	909.9	.630		
.927	922.6	.639	1.358	
1.003	942.8	.648	1.341	
1.079	955.0	.666	1.346	
1.206	949.8	.672	1.341	
1.257	917.0		1,268	
1.308	929.7	.684		
1.384	941.4	.693	1.358	
1.461	968.0	.702	1.341	+04
1.511	968.2	.708	1.248	+04
1.562	955.6	.714	1.351	
1.613	968.5	. 120	1.346	
1.689	981.8	. 729		
1.765	999.4	. 738		
1.816	996.6	. 744	1.248	
1.867	967.4	. 750		
1.918	993.5	. 756		
1.994	1922.6	.765		
2.070	994.6	. 774	1,321	104

```
POINT SERIAL NO. 2038.010 (TIME= 399.50 SEC)
                                  16.11 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-11)
                                  608.4 K
                              1.553E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                    .29 MPA
     PRESSURE
     SAT TEMP
                                 405.50 K
                                  13.14 KG/SEC-M**2
     MASS FLUX
     INLET QUALITY
                                   .527
     INLET ENTHALPY
                              1.698E+06 J/KG
QUENCH FRONT:
                                  -. 102 M
     ELEVATION
                                 0.0000 M/SEC
     VELOCITY
                                   .460
     QUALITY
NET LHP POWER TO FLUID
                                   372.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                     TV
                              XE XA
ELEVATION
            DZQF
 (M)
             (M)
                      (K)
                    828.4 .711 .510
1.537
            1.638
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                         XE
                                   HEAT FLUX
                                    M/M##5
 (M)
               (K)
              765.5
                                   1.37E+04
  .013
  .051
                                    1.37E+04
              761.6
                         .533
              759.7
                          .535
                                   1.37E+04
  .063
                                   1.37E+04
  .089
              766.2
                         .538
                                  1.37E+04
                          .541
  . 114
              766.2
                         .544
                                   1.37E+04
  . 140
              770.2
                          .547
  .165
                                    1.36E+04
              760.0
                          .566
                                    1.37E+04
              805.7
  .318
  .394
                                    1.37E+04
              829.3
                          .575
                                    1.36E+04
                          .584
  .470
              843.1
                          .593
                                    1.36E+04
  .546
              858.1
                                    1.36E+04
  .622
              872.1
                          .602
  .698
              883.2
                         .612
                                   1.36E+04
  .775
                                    1.35E+04
              897.7
                         .621
                         .630
                                   1.35E+04
  .851
              909.9
                         .639
              922.6
                                   1.35E+04
  .927
              942.8
                          .648
                                    1.34E+04
 1.003
                                    1.34E+04
 1.079
              955.0
                          .657
                                    1.34E+04
                          .666
 1.156
              950.1
                         .572
                                    1.34E+04
 1,206
              949.8
                          .678
 1.257
              917.0
                                    1.26E+04
 1.308
              929.7
                          . 684
                                    1.35E+04
                          .693
                                    1.35E+04
              941.4
 1.384
                          .702
                                    1.34E+04
              968.0
 1.461
                         .708
                                    1.24E+04
              968.2
 1.511
                         .714
                                    1.35E+04
 1.562
              955.6
                                    1.34E+04
 1.613
              968.5
                         .720
                                    1.34E+04
              981.8
                         .729
 1.689
                         . 738
 1.755
              999.4
                                    1.34E+04
                         . 744
 1.816
              996.6
                                    1.24E+04
                         .750
                                    1.34E+04
              967.4
 1.867
```

.765

.774

993.5

1022.6

994.6

1.918

1.994

2.070

1.34E+04

1.33E+04

1.32E+04

INEL POST-CHE EXPERIMENT NO. 38

POINT	SERIAL	NO. 3	038.010	(TIME= :	399.	50 SEC)
LOOP	PRESSUR	E(PE-3)		16.	11	MPA
FCV TI	EMPERAT	URE (TE-	FCV-1T)		3.4	
	NLET EN			1.553E		
TEST :	SECTION			110000	-	
	PRESSUR	E			.29	MPA
	SAT TEM			405		
	MASS FL					KG/SEC-M**2
	INLET Q				527	HOT DED TO E
		NTHALPY		1.698	7.77	17KC
	H FRONT			1.0900	00	21 00
	ELEVATI				102	M
	VELOCIT					
	QUALITY					M/SEC
		R TO FL	ui n		160	**
ME. I.	III FUNE	N TO FL	010	374	2.0	~
						INFORMATION
ELEVA		DZQF	IV	XE)	KA	
(M)		(M)	(K)			
1.84	2	1.943	876.5	747	518	
ELEVA		TURE ME	ASUREMENT			FORMATION
(M)		(K)	AE		I/M	FLUX
tut		()			4/14	
.01	3	765.5	.529) 1	378	+04
. 05	1	761.6	.533			+04
.06		759.7	. 535			+04
. 08		766.2	.538			+04
.11		766.2	.541			+04
. 14		770.2	.544			+04
. 16		760.0	.54			+04
. 31		805.7	.566	200		
. 39		829.3	.575			+04
.47		843.1	.584			+04
. 54						+04
		858.1	.59			+()4
.62		872.1	. 602			+()4
. 69		883.2	.612			+04
. 77		897.7	.62			+04
.85		909.9	. 630	200		+04
.92		922.6	.639			+04
1,00		942.8				+04
1.07		955.0	1.00.003			+04
1.15		950.1	. 666	1.	341	+04
1.20		949.8	.672	1.	341	+04
1.25		917.0	. 678	1.	268	+04
1.30		929.7	. 684			+04
1.38	žą.	941.4	.693			+04
1.46	1	968.0				+04
1.51	1	968.2	. 708			+04
1.56		955.6				+04
1.61		968.5	. 720			+04
1.68		981.8	. 729			+04
1.76		999.4				+04
1.81		996.6				+04
1.86		967.4				+04
1.91		993.5				+04
1 00		1000	. 130		341	104

.765

.774

1.33E+04

1.32E+04

1.994

2.070

1022.6

994.6

POINT SERIA	AL NO. 1	039.010	(TIME	= 299	.50 SEC)
LOOP PRESSI	URE (PE = 3)			16.17	MPA
ECV TEMPERA				607.8	
LHP INLET		, ,		8E+06	
TEST SECTION			11.00		
PRESSI				.30	MPA
SAT TI			lut	06.59	K
MASS				13.47	KG/SEC-M**
	QUALITY			.525	
	ENTHALPY		1.69	7E+06	J/KG
QUENCH FROM			11111		
ELEVA				-, 102	M
VELOC					M/SEC
QUALT				. 456	
NET LHP POL		UID		381.6	W
CARDO TEMB	COATHDE M	EACHDEMENT	LOCA	TION	INFORMATION
ELEVATION		IV	XE	XA	ini simiri i isa
(M)	(M)	(K)		14 1 1	
(11)	(11)	1			
1.232	1.334	766.5	.673	.501	
WALL TEMPER	DATHDE ME	ASUREMENT	LOCAT	LON II	NEORMATION
ELEVATION	LEMP.	XE		HEAT	FLUX
(M)	(K)	A.E.		W/M	
(M)	101			,	
.013	765.4	.526		1.371	
.051	760.8		0.00	1.361	E+04
.063	758.2	.53		1.36	
.089	763.5			1.36	
, 114	764.5		,	1.36	E+04
. 140	768.4	. 542	>	1.36	E+04
. 165	757.9	. 545	,	1.36	E+04
.318	804.9	.563	1	1.36	E+04
. 394	829.1			1.36	E+01;
.470	843.2			1.36	E+04
.546	858.4			1.36	E+04
.622	872.4			1.36	E+04
.698	883.8			1.36	E+04
.775				- An - 10" A	F+04
	898 4	.618	3	1.36	
	898.4 910.5			1.35	
. 851	910.5	.62	1		E+04
.851	910.5	.62	5	1.35	E+04 E+04
.851 .927 1.003	910.5 923.4 943.2	.636	5	1.35	E+04 E+04
.851 .927 1.003 1.079	910.5 923.4 943.2 955.3	.62 .636 .646	5	1.35	E+04 E+04 E+04
.851 .927 1.003 1.079 1.156	910.5 923.4 943.2 955.3 950.2	.62 .636 .646 .655		1.35 1.35 1.34 1.34	E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206	910.5 923.4 943.2 955.3 950.2 949.8	. 62 . 636 . 646 . 655 . 666		1.35 1.35 1.34 1.34 1.34	E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257	910.5 923.4 943.2 955.3 950.2 949.8 918.3	.62 .636 .646 .655 .666 .670		1.350 1.350 1.340 1.340 1.340	E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7	. 62 . 636 . 646 . 655 . 666 . 676 . 676		1.351 1.351 1.341 1.341 1.341 1.251	E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7	.62 .636 .644 .655 .667 .677 .68		1.35 1.35 1.34 1.34 1.34 1.34 1.25 1.35	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7	.62 .63 .64 .65 .66 .67 .67 .68		1.35/ 1.34/ 1.34/ 1.34/ 1.34/ 1.25/ 1.35/ 1.34/	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.6	.62 .63 .64 .65 .66 .67 .67 .68 .69		1.35/ 1.34/ 1.34/ 1.34/ 1.34/ 1.25/ 1.35/ 1.34/ 1.34/	E+04 +014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.1 968.6 956.7	.62 .63 .64 .65 .66 .67 .68 .69 .69		1.351 1.341 1.341 1.341 1.251 1.351 1.341 1.341	E+04 +04 E+04 E+04 E+04 E+04 E+04 E+04 E
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613	910.5 923.4 943.2 950.2 949.8 918.3 930.7 941.7 968.6 956.7	.62 .63 .64 .65 .66 .67 .67 .68 .69 .69		1.354 1.344 1.344 1.344 1.356 1.356 1.356 1.346 1.346 1.346 1.346	+04 +04 +04 +04 +04 +04 +04 +04 +04 +04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689	910.5 923.4 943.2 955.3 950.2 949.8 918.8 930.7 941.7 968.6 956.7 969.7	.62 .63(.64(.65) .66(.67(.68) .69(.69) .70(.71) .711		1.351 1.341 1.341 1.341 1.251 1.351 1.341 1.341 1.341 1.341 1.341 1.331	E+04 +014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.6 956.7 982.5	.62 .63(.64(.65) .66(.67(.68) .69(.69) .70(.71) .71		1.351 1.341 1.341 1.341 1.251 1.351 1.341 1.241 1.341 1.341 1.331 1.331	F+04 +04 +03 F+03 F+04 F+
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.1 968.6 956.7 982.5 1000.0	.62 .63 .64 .65 .66 .67 .68 .69 .69 .70 .71 .71 .71		1.351 1.341 1.341 1.251 1.351 1.341 1.241 1.341 1.331 1.331 1.331	E+04 +04 E+05 E+06 E+06 E+06 E+06 E+06 E+07 E+07 E+08 E
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816 1.867	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.6 956.7 982.5 1000.0 997.3	.62 .63 .64 .65 .66 .67 .67 .68 .69 .69 .70 .71 .71 .72 .73 .74		1.351 1.351 1.341 1.341 1.251 1.351 1.341 1.341 1.331 1.331 1.331 1.331	+04 +04 +04 +04 +04 +04 +04 +04 +04 +04
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.562 1.613 1.689 1.765 1.816 1.867 1.918	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.6 956.7 969.7 982.5 1000.0 997.3 968.5	.62 .63(.64(.65) .66(.67(.68) .69(.69) .711 .711 .72(.73) .744 .74		1.351 1.341 1.341 1.341 1.351 1.351 1.351 1.341 1.341 1.341 1.341 1.341 1.331 1.331 1.331	E+04 +014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014 E+014
.851 .927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816 1.867	910.5 923.4 943.2 955.3 950.2 949.8 918.3 930.7 941.7 968.6 956.7 982.5 1000.0 997.3	.62 .63(.64(.65) .66(.67(.68) .69(.70) .711 .711 .72(.73) .744 .75		1.351 1.351 1.341 1.341 1.251 1.351 1.341 1.341 1.331 1.331 1.331 1.331	F+04 +04 +04 +04 +04 F+04

POINT SERI	AL NO. 20	39.010	(TIME= 299	.50 SEC)
LOOP PRESS	URE(PE-3)		16.17	MPA
FCV TEMPER		CV-1T1	607.8	
LHP INLET			1.548£+06	
TEST SECTI			1.2401.00	37 80
			20	MOA
PRESS				MPA
SATI			406.59	K
MASS			13.47	KG/SEC-M##2
INLET	QUALITY		.525	
INLET	ENTHALPY		1.697E+06	J/KG
QUENCII FRO	NT:			
ELEVA	12.0		102	M
VELOC				M/SEC
QUALI			. 456	
NET LHP PO	MER TO FEE	110	381.6	W
				INFORMATION
ELEVATION	DZQF	TV	XE XA	
(M)	(M)	(K)		
1.537	1.638	822.8	.708 .507	
WALL TEMPE	DATURE ME	SHDEMENT	OCATION I	NEORMATION
ELEVATION		XE		FLUX
		7.6	W/M	
(M)	(K)		W/M	
.013	765.4	. 526	1.37	E+04
.051	760.8			E+04
.063	758.2	.533		E+04
.089	763.5	536		E+04
. 114	764.5	.539		E+04
. 140				
	768.4	.542		
. 165	757.9			
.318	804.9	. 563	1.36	
. 394	829.1	.572	1.36	E+04
. 470	843.2	.582	1.36	E+04
.546	858.4		1.36	E+04
. 622	872.4	.600		
.698	883.8			
.775	898.4			
.851	910.5		1.35	
		.627		
.927	923.4	.636		
1.003	943.2			
1.079	955.3	.655	1.34	
1.156	950.2	. 664	1.34	
1.206	949.8	.670	1.34	E+04
1.257	918.3	.676	1.25	E+04
1.308	930.7	.681		E+04
1.384	941.7	.690	1.34	
1.461	968.1	.699	15. (2.15)	
1.511	968.6	. 705	1.24	
1.562	956.7	.711	1,34	
1.613	969.7	.717	1.33	
1.689	982.5	.726	1.33	
1.765	1000.0	. 735	1.33	E+04
1.816	997.3	. 741	1,23	E+04
1.867	968.5	.747	1.34	
1.918	994.3	.753		
1.994	1018.4	.761	1.32	
	T 1000 T 1000 T 1000 T			
2.070	992.6	.770	1.32	104

POINT SERIAL NO.	3039.010	(TIME= 299.	.50 SEC)
LOOP PRESSURE (PE-3)	16.17	MPA
FCV TEMPERATURE(TE	-FCV-1T1	607.8	K
LHP INLET ENTHALPY TEST SECTION:		1.548E+06	J/KG
PRESSURE		. 30	MPA
SAT TEMP		406.59	
MASS FLUX			KG/SEC-M**2
INLET QUALITY		525	
INLET ENTHALP	Y	1.697E+06	J/KG
QUENCH FRONT:		1.100.00	
ELEVATION		-, 162	M
VELOCITY		0.0000	
QUALITY		.456	
NET LHP POWER TO F	LUID	381.6	W
VAPOR TEMPERATURE	MEASUREMENT	LOCATION	INFORMATION
ELEVATION DZQF	TV	XE XA	
(M) (M)			
1.842 1.943	871.4	.744 .515	

ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		W/M**2
.013	765.4	.526	1.37E+04
.051	760.8	.531	1.36E+04
.063	758.2	.533	1.36E+04
.089	763.5	.536	1.36E+04
.114	764.5	.539	1.36E+04
. 140	768.4	.542	1.36E+04
. 165	757.9	.545	1.36E+04
.318	804.9	.563	1.36E+04
. 394	829.1	.572	1.36E+04
.470	843.2	.582	1.36E+04
.546	858.4	.591	1.36E+04
.622	872.4	.600	1.36E+04
.698	883.8	.609	1.36E+04
.775	898.4	.618	1.36E+04
.851	910.5	.627	1.35E+04
.927	923.4	.636	1.35E+04
1.003	943.2	.646	1.34E+04
1.079	955.3	.655	1.34F+04
1.156	950.2	.664	1.34E+04
1.206	949.8	.670	1.34E+04
1.257	918.3	.676	1.25E+04
1.308	930.7	.681	1.35E+04
1.384	941.7	.690	1.34E+04
1.461	968.1	.699	1.34E+04
1.511	968.6	.705	1.241104
1.562	956.7	.711	1.34E+04
1.613	969.7	.717	1.33E+04
1.689	982.5	.726	1.33E+04
1.765	1000.0	. 735	1.33E+04
1.816	997.3	741	1.23E+04
1.867	968.5	. 747	1.34E+04
1.918	994.3	. 753	1.33E+04
1.994	1018.4	.761	1.32E+04
2.070	992.6	.770	1.32E+04

	POINT SERIAL NO	. 1040.010	(TIME= 609	.50 SEC)
ì	LOOP PRESSURE(F	E-3)	16.07	MPA
	FCV TEMPERATURE	(IE-FCV-II)	607.5	K
	LHP INLET ENTHA		1.547E+06	
	TEST SECTION:			
	PRESSURE		30	MPA
	SAT TEMP			K
				KG/SEC-M**2
		FTY		
	INLET QUAL	IAL PY	1 7005406	1.000
		IALPY	1. /UUL TUD	J/KG
- 1	QUENCH FRONT:			
	ELEVATION		102	
	ALFOCITA		0.0000	M/SEC
	QUALITY		. 456	
1	NET LHP POWER T	O FLUID	367.8	W
- 1	VAPOR TEMPERATU	RE MEASUREME	NT LOCATION	INFORMATION
	ELEVATION DZ			
	(M) (M			

1 232 1 334 730 3 650 497

1.232	1.334	730.3 .650	.497
WALL TEMPER			TION INFORMATION
ELEVATION	TEMP	XE.	HEAT FLUX
(M)	(K)		W/M**2
.013	753.0	.528	1.046+04
.051	741.2	.532	1.051+04
.063	730.9	.533	1.05E+04
.089	731.5	.536	1.05E+04
. 114	729.7	.538	1.05E+04
. 140	731.4	.541	1.05E+04
. 165	721.3	.543	1.05E+04
. 318	759.3	.558	1.06E+04
. 394	781.7	.566	1.06E+04
.470	795.1	.574	1.06E+04
.546	809.8	.581	1.06E+04
.622	823.3	.589	1.06E+04
.698	834.4	.597	1.05E+04
.775	848.6	.604	1.05E+04
. 851	860.4	.612	1.05E+04
.927	872.1	.619	1.05E+04
1.003	891.0	.627	1.05E+04
1.079	902.0	. 634	1.04E+04
1.156	898.5	.642	1.04E+04
1.206	898.7	.647	1.19E+04
1.257	872.6	.653	9.60E+03
1.308	883.3	.657	1.04E+04
1.384	892.0	. 665	1.04E+04
1,461	917.0	.672	1.04E+04
1.511	917.5	.677	9.60E+03
1.562	906.0	.682	1.04E+04
1.613	917.2	.687	1.04E+04
1.689	928.4	.695	1.04E+04
1.765	945.3	.702	1.03E+04
1.816	943.1	.707	9.55E+03
1.867	916.5	.712	1.04E+04
1.918	940.0	.717	1.03E+04
1.994	960.6	. 724	1.03E+04
2.070	959.0	.731	1.03E+04

POINT SERIAL NO. 2040.010 (TIME= 609.50 SEC)	POINT SERIAL NO. 3040.010 (TIME= 609.50 SEC)
LOOP PRESSURE(PE-3) 16.07 MPA	LOOP PRESSURE(PE-3) 16.07 MPA
FCV TEMPERATURE(TE-FCV-1T) 607.5 K	FCV TEMPERATURE(TE-FCV-1T) 607.5 K
THP INLET ENTHALPY 1,547E+06 J/KG	LHP INLET ENTHALPY 1.547E+06 J/KG
TEST SECTION:	TEST SECTION:
PRESSURE .30 MPA	PRESSURE .30 MPA
SAT TEMP 406.51 K	SAT TEMP 406.51 K
MASS FLUX 12.31 KG/SEC-M**2	MASS FLUX 12.31 KG/SEC-M**
INLET QUALITY .527	INLET QUALITY .527
INLET ENTHALPY 1.700E+06 J/KG	INLET ENTHALPY 1.700E+06 J/KG
UENCH FRONT:	QUENCH FRONT:
ELEVATION 102 M	ELEVATION 102 M
VELOCITY 0.0000 M/SEC	VELOCITY 0.0000 M/SEC
QUALITY .456	QUALITY .456
ET LHP POWER TO FLUID 367.8 W	NET LIP POWER TO FLUID 367.8 W
APOR TEMPERATURE MEASUREMENT LOCATION INFORMATION	VAPOR TEMPÉRATURE MEASUREMENT LOCATION INFORMATION
LEVATION DZQF TV XE XA	ELEVATION DZQF TV XE XA
(M) (M) (K)	LOOP PRESSURE (PE-3) 16.07 MPA
1 - 2 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1.012
ALL TEMPERATURE MEASUREMENT LOCATION INFORMATION	WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX (M) (K) W/M**2
LEVATION TEMP XE HEAT FLUX	ELEVATION TEMP XE HEAT FLOX
.013	(M) (K) W/M**2 .013 753.0 .528 1.04E+04 .051 741.2 .532 1.05E+04 .063 730.9 .533 1.05E+04 .089 731.5 .536 1.05E+04 .114 729.7 .538 1.05E+04 .165 721.3 .543 1.05E+04 .165 721.3 .543 1.05E+04 .318 759.3 .558 1.06E+04 .394 781.7 .566 1.06E+04 .470 795.1 .574 1.06E+04 .546 809.8 .581 1.06E+04 .622 823.3 .589 1.06E+04 .622 823.3 .589 1.06E+04 .775 848.6 .604 1.05E+04 .851 860.4 .612 1.05E+04 .927 872.1 .619 1.05E+04 .927 872.1 .619 1.05E+04 1.003 891.0 .627 1.05E+04 1.079 902.0 .634 1.04E+04 1.156 898.5 .642 1.04E+04 1.266 898.7 .647 1.19E+04 1.266 898.7 .647 1.19E+04 1.266 898.7 .647 1.19E+04 1.267 872.6 .653 9.60E+03 1.308 883.3 .657 1.04E+04 1.461 917.0 .672 1.04E+04 1.562 906.0 .682 1.04E+04 1.613 917.2 .687 1.04E+04 1.689 928.4 .695 1.04E+04 1.689 928.4 .695 1.04E+04 1.765 945.3 .702 1.03E+04 1.994 960.6 .724 1.03E+04
.013 753.0 .528 1.04E+04	.013 753.0 .528 1.04E+04
.051 741.2 .532 1.05£+04	.051 741.2 .532 1.05E+04
.063 730.9 .533 1.05E+04	.063 730.9 .533 1.05E+04
.089 731.5 .536 1.05E+04	.089 731.5 .536 1.05£+04
.114 729.7 .538 1.05£+04	.114 729.7 .538 1.05£+04
.140 /31.4 .541 1.05E+04	.140 731.4 .541 1.051.04
.165 /21.3 .543 1.05E+04	.165 /21.3 .543 1.054-04
310 734 3 200 1.001+04	318 759.3 .500 1.005704
394 761.7 .700 1.061.404	.394 /81.7 ,260 1.06104
.410 173.1 .214 1.001.704 566 900.9 561 1.001.704	.470 793.1 .374 1.005.04
. 240 009.0 . 201 1.001704 622 823 580 1.061401	590 809.6 .201 1.065.04
608 83b 507 1.05C+04	600 83k b 507 1 05F+00
775 848 6 604 1 055404	775 848 6 60h 1 05F+0h
851 860 4 612 1 055+04	851 860 b 612 1 05F+0b
927 872.1 619 1.05€+04	927 872 1 619 1 056+04
1 003 891 0 627 1 055+01	1 003 891 0 627 1 05F+04
1 079 902 0 634 1 045+04	1 079 902 0 634 1 04F+04
1 156 898 5 642 1 045+04	1 156 898 5 642 1 04F+04
1.206 898.7 647 1.195+04	1 206 898 7 -647 1.195+04
1.257 872.6 653 9.605+03	1.257 872.6 .653 9.60€+03
1.308 883.3 657 1.048+04	1 308 883 3 .657 1.04E+04
1.384 892.0 .665 1.04E+04	1.384 892.0 .665 1.04£+04
1.461 917.0 .672 1.04E+04	1,461 917.0 .672 1.04E+04
.511 917.5 .677 9.60E+03	1,511 917.5 ,677 9,60€+03
1.562 906.0 .682 1.04E+04	1.562 906.0 .682 1.04£+04
1.613 917.2 .687 1.04E+04	1.613 917.2 .687 1.04E+04
1.689 928.4 .695 1.04E+04	1.689 928.4 .695 1.04E+04
1.765 945.3 .702 1.03E+04	1.765 945.3 ,702 1.03E+04
1.816 943.1 .707 9.55E+03	1.816 943.1 .707 9.55£+03
1.867 916.5 .712 1.04E+04	1.867 916.5 .712 1.04E+04
	1 918 940 0 717 1 03f+04
1.918 940.0 .717 1.03E+04	
ALL TEMPERATURE MEASUREMENT LOCATION INFORMATION (K) (M) (K)	1.994 960.6 .724 1.03E+04

POINT SERIAL NO. 2041.010 (TIME= 349.50 SEC)

POINT SERIA	AL NO. 10	041.010	(TIME = 3	149.50 SEC)
LOOP PRESSI	URF (PF - 31		16	11 MPA
FCV TEMPERA		CV-1T)		3.6 K
LHP INLET				+06 J/KG
TEST SECTIO				46 67 14
PRESSI				30 MPA
SAT TI				48 K
MASS				48 KG/SEC-M**2
(T-27) (T-27) (T-27)	QUALITY			47
	ENTHALPY		1.745E+	+06 J/KG
QUENCH FROM	Compared a conference of			and as the line
ELEVA			- 1	102 M
VELOC			0.00	000 M/SEC
QUALI	2.18.25		. 4	159
NET LIP PO		OID	530).4 W
VAPOR TEMP	ERATURE MI	FASUREMENT	LOCATIO	INFORMATION
ELEVATION	DZQF	TV	XE >	(A
(M)	(M)	(K)		
4	4	4		
1.232	1.334	678.0	.652 .5	18
WALL TEMPE	DATURE ME	ASHDEMENT	LOCATION	INFORMATION
ELEVATION		XE		AT FLUX
(M)	(K)	156		1/M##5
(11)	(11)			411
.013	730.9	. 548	1	03E+04
.051	710.1	.55		02E+04
.063	692.1	.553		03E+04
.089	690.2	.555		03E+04
.114	687.3		7 1	03E+04
.140	688.6		1	03E+04
. 165	681.9	.561	1	03E+04
.318	716.5	.574		04E+04
.394	735.3	.580		04E+04
470	746.7			04E+04
.546	760.0			04E+04
.622	772.4			04E+04
.698	782.8			04E+04
.775	795.8			04E+04
.851	806.9			04E+04
				04E+04
.927	817.9	.626	1.	
1.003	817.9 835.0	.636	1.	04E+04
.927 1.003 1.079	817.9 835.0 845.2	.626 .632	1.2	04E+04 04E+04
.927 1.003 1.079 1.156	817.9 835.0 845.2 843.6	.626 .632 .639	1.	04E+04 04E+04 04E+04
.927 1.003 1.079 1.156 1.206	817.9 835.0 845.2 843.6 844.0	.626 .632 .635 .645	1	04E+04 04E+04 04E+04 04E+04
.927 1.003 1.079 1.156 1.206 1.257	817.9 835.0 845.2 843.6 844.0 816.9	.636 .635 .645 .656	1. 2 1. 3 1. 5 1. 6 1. 7 1.	04E+04 04E+04 04E+04 04E+04 04E+04
.927 1.003 1.079 1.156 1.206 1.257 1.308	817.9 835.0 845.2 843.6 844.0 816.9 826.8	.626 .633 .639 .645 .654	1	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04
.927 1.003 1.079 1.156 1.206 1.257 1.308 1.384	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3	.626 .633 .639 .645 .656 .658	5 1. 2 1. 3 1. 5 1. 6 1. 7 1. 8 1.	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03
.927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3	.626 .632 .645 .650 .654 .654	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04
. 927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 360.9	. 626 . 637 . 637 . 656 . 658 . 658 . 664	5 1. 2 1. 3 1. 5 1. 6 1. 7 1. 8 1. 8 1. 8 1. 9 9.	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04
. 927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 360.7 861.9 853.0	. 626 . 637 . 645 . 656 . 658 . 664 . 679	5 1. 2 1. 3 1. 5 1. 6 1. 7 1. 8 1. 9 1.	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04 04E+04 61E+03
. 927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 360.7 861.9 853.0 864.8	. 626 . 633 . 634 . 654 . 654 . 654 . 664 . 671 . 675 . 675 . 684	5 1. 2 1. 3 1. 5 1. 5 1. 6 1. 7 1. 8 1. 1 1. 5 9. 9 1.	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04 04E+04 04E+03 04E+04
. 927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 360.7 861.9 853.0	. 626 . 634 . 635 . 654 . 654 . 654 . 667 . 677 . 679 . 684	5 1. 2 1. 3 1. 3 1. 3 1. 3 1. 3 1. 3 1. 3	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04
.927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689	817, 9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 760.7 861.9 864.8 877.9	. 626 . 633 . 645 . 656 . 651 . 664 . 671 . 675 . 684 . 690 . 690	5 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04 04E+04 04E+04 04E+04
. 927 1.003 1.079 1.156 1.206 1.206 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816	817, 9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 760.7 861.9 853.9 864.8 877.9 894.7	. 626 . 633 . 645 . 656 . 651 . 664 . 671 . 675 . 684 . 690 . 690	5 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04
. 927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765	817, 9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 760.7 861.9 864.8 877.9	. 626 . 636 . 637 . 656 . 651 . 651 . 667 . 677 . 679 . 680 . 690 . 690	5 1. 2 1. 3 1. 3 1. 3 1. 3 1. 3 1. 3 1. 3	04E+04 04E+04 04E+04 04E+04 04E+04 60E+03 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04
. 927 1.003 1.079 1.156 1.206 1.257 1.308 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816	817.9 835.0 845.2 843.6 844.0 816.9 826.8 837.3 760.7 861.9 853.0 864.8 877.9 894.7 892.4	. 626 . 634 . 635 . 645 . 656 . 667 . 677 . 679 . 688 . 690 . 690 . 700	5 1. 2 1. 3 1. 3 1. 3 1. 3 1. 3 1. 3 1. 3	04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04 04E+04

LOOP PRESSI FCV TEMPERA LHP INLET I	TURE (TE-F	CV-11)	16.11 608.6 1.554E+06	K
TEST SECTIO	IN:			
PRESSI	IRE		. 30	MPA
SAT 16			406.48	K
MASS I	The state of the s			KG/SEC-M**2
	QUALITY		.547	
	ENTHALPY		1.745E+06	J/KG
QUENCH FROM				
ELEVAT			-, 102	
VELOCI			0.0000	M/SEC
NET LHP POW		10	.459	
MET CHE POR	KER TO FLU	110	530.4	H
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF	IV	XE XA	
(M)	(M)	(K)		
1.537	1.638	722.3	.677 .520	
WALL TEMPER	RATURE MEA	SUREMENT	LOCATION II	NEORMATION
ELEVATION	TEMP	XE	HEAT	FLUX
(M)	(K)		W/M	**2
.013	730.9	. 548	1.03	CAOb
.051	710.1	.551		
.063	692.1	.553		
.089	690.2	.555		
. 114	687.3	. 557		
.140	688.6	.559		
. 165	681.9	.561		
.318	716.5	.574		
. 394	735.3	.580		
.470	746.7	.587		
. 546	760.0	. 593		
.622	772.4	,600		
. 698	782.8	. 606	75 77 77 77 77	
.775	795.8	.613		
.851	806.9	.619		
.927	817.9	. 626		
1.003	835.0	,632		
1.079	845.2	.639		
1.156	843.6	.645		
1.206	844.0	.650		
1.257	816.9	. 654		
1.308	826.8	. 658		
1.384	837.3	.664	1.048	+04
1.461	860.7	.671	1.046	+04
1.511	861.9	.675		
1.562	853.0	.679	1.041	+04
1.613	864.8	. 684	1.046	+04
1.689	877.9	. 690	1.046	+04
1.765	894.7	.697	1.048	+04
1.816	892.4	. 701		+03
1.867	865.0	.705	1.048	+04
1.918	888.5	. 709	1.048	+04
1.994	909.8	.716		
2.070	912.2	.722	1.038	+04

POINT SERIAL NO. 1043.010 (TIME= 479.50 SEC)

```
POINT SERIAL NO. 3041.010 (TIME= 349.50 SEC)
                                    16.11 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-1T)
                                    608.6 K
                               1.554E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                     .30 MPA
     PRESSURE
                                  406.48 K
     SAT TEMP
                                    14.48 KG/SEC-M**2
     MASS FLUX
                                     .547
     INLET QUALITY
     INLET ENTHALPY
                                1.745E+06 J/KG
QUENCH FRONT:
                                   -. 102 M
     ELEVATION
                                  0.0000 M/SEC
     VELOCITY
                                     .459
     QUALITY
                                    530.4 W
NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                               XE
                                    XA
             DZQF
                       TV
ELEVATION
             (M)
                       (K)
 (M)
                      761.6 .703 .524
            1.943
 1.842
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                    HEAT FLUX
ELEVATION
              TEMP
                           XE
                                     W/M**2
 (14)
               (K)
                                     1.03E+04
               730.9
                           .548
  .013
                                     1.02E+04
               710.1
                           .551
  .051
                                     1.03E+04
              692.1
                          .553
  .063
                          .555
                                     1.03E+04
              690.2
  .089
                                     1.03E+04
              687.3
                           .557
  . 114
                                     1.03E+04
                           .559
  . 140
              688.6
                                     1.03E+04
  . 165
              681.9
                          .561
                                     1.04E+04
                          .574
  .318
               716.5
                                     1.04E+04
                           .580
               735.3
  .394
                                     1.04E+04
                           .587
  .470
               746.7
                                     1.04E+04
  .546
                          .593
               760.0
                                     1.04E+04
                           .600
  .622
               772.4
                                     1.04E+04
                          .606
  .698
               782.8
                          .613
                                     1.04E+04
               795.8
  .775
                                     1.04E+04
              806.9
                          .619
  .851
                                     1.04E+04
                          .626
  .927
              817.9
                          .632
                                     1.04E+04
 1.003
               835.0
                          .639
                                     1.04E+04
              845.2
 1.079
                                     1.04E+04
                          . 645
              843.6
 1.156
                                     1.04E+04
                          .650
               844.0
 1.206
                                     9.60E+03
                          .654
 1.257
               816.9
                                     1.04E+04
                          .658
               826.8
 1.308
                                     1.04E+04
               837.3
                          .664
 1.384
                                     1.04E+04
                          .671
               860.7
 1.461
                                     9.61E+03
                          .675
 1.511
               861.9
                          .679
                                     1.04E+04
 1.562
               853.0
                          .684
                                     1.04E+04
               864.8
 1.613
                                     1.04E+04
               877.9
                          .690
 1.689
```

.697

.701

.705

.709

.716

.722

894.7

892.4

865.0

888.5

909.8

912.2

1.765

1.816

1.867

1.918

1.994

2.070

1.04E+04

9.59E+03

1.04E+04

1.04E+04

1.04E+04

1.03E+04

POINT SERIA	VL NO. 10	43.010	(IIME	= 479	.50 SEC)
LOOP PRESSU	IRE(PE-3)			11.50	MPA
FCV TEMPERA		CV-111		567.2	
LHP INLET E			1.30	9E+06	
TEST SECTIO					
PRESSU				.46	MPA
SAT TE			ės.	21.75	
MASS F					KG/SEC-M**2
	QUALITY			. 395	1.07 02 0 11 2
	ENTHALPY		1.46	2E+06	J/KG
QUENCH FROM			4.4		56.5 1136
ELEVAT				102	M
VELOCI					M/SEC
QUALIT				. 322	1.4
NET LHP POW		ID		476.7	W
VAPOR TEMPE	RATURE ME	ASUREMEN	TLOCA	TION	INFORMATION
ELEVATION	DZQF	TV	XE		THE STREET FOR
(M)	(M)	(K)	7.54	7.074	
(11)	4112	101			
1.232	1.334	743.7	.517	. 392	
WALL TEMPER	RATHRE MEA	SURFMENT	LOCAT	LON II	NEORMATION
ELEVATION	TEMP	XE			FLUX
(M)	(K)	***		W/M	
4					
.013	744.3	. 39	6	1.35	E+04
.051	730.3	. 40	0	1.35	E+04
.063	719.0	. 40		1.34	
.089	719.6	. 40	3	1.34	E+04
. 114	718.1	,40	6	1.34	E+04
. 140	721.2	,40	9	1.34	E+04
. 165	714.6	. 41	1	1.33	E+04
. 318	759.8	.42	6	1.34	E+04
. 394	783.1	.43	14	1.34	E+04
.470	798.3	. 1414	2	1.35	E+04
.546	815.2	. 24 24	9	1.34	
.622	831.5	. 45		1.34	E+04
.698	844.8	.46		1.33	
.775	860.9	. 47	2	1.33	
.851	873.4	.48	0	1.33	
.927	885.5	.48	7	1.33	E+04
1.003	903.6	.49		1.33	
1.079	913.4	.50	2	1.33	E+04
1.156	910.0	.51	0	1.32	
1.206	912.3	.51	5	1.32	E+04
1.257	892.0	.52	0	1.23	E+04
1.308	907.7	. 52	4	1.32	E+04
1.384	917.0	.53	2	1.32	E+04
1.461	938.6	.54	0	1.32	E+04
1.511	935.9	.54	14	1.22	E+04
1.562	921.1	.54	9	1.32	
1.613	934.4	.55		1.32	
1.689	945.1	. 56		1.32	
1.765	959.1	.56		1.31	
1.816	955.5	.57		1.23	
1.867	926.5	.57		1.40	
1.918	894.7	.58		3.80	E+04
1.994	737.8	.60		3.06	
2.070	617.5	.62	4	2.26	E+04

POINT SERIAL NO. 3043.010 (TIME= 479.50 SEC)

POINT SERIA	AL NO. 20	43.010	(TIME= 479	.50 SEC1
torne other		43.010	(111112	
LOOP PRESSI	URE(PE-3)		11.50	MPA
FCV TEMPERA	ATURE (TE-F	CV-1T)	567.2	K
LHP INLET 8	ENTHALPY		1.309E+06	J/KG
TEST SECTIO	ON:		Treams who	75.00
PRESSI			46	MPA
SAT TI			421.75	
MASS I				KG/SEC-M**2
	QUALITY		.395	
	ENTHALPY			
QUENCH FROM			1.462E+06	J/KG
			400	
ELEVA			102	
VELOC			0.0000	
QUALIT		11.00	.322	
NET LHP POL	MER TO FLE	110	476.7	W
VAPOR TEMPI	ERATURE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF	TV	XE XA	
(M)	(M)	(K)		
1.537	1.638	784.6	.547 .402	
WALL TEMPER				
ELEVATION		XE	HEAT	
(M)	(K)		W/M	**2
.013	744.3	. 396	1.35	EADI
.051	730.3			
.063	719.0	.401		
.089	719.6	.403		
.114	718.1			
. 140	721.2	.409		
. 165	714.6	.411		
.318	759.8	.426		
. 394	783.1			E+04
	798.3	.442		F+04
.546	815.2	.449		
.622	831.5	.457		E+04
. 698	844.8	. 464		
.775	860.9	.472		
.851	873.4	.480		
.927	885.5	. 487		
1.003	903.6	. 495		E+04
1.079	913.4	.502	1.33	
1.156	910.0	.510		
1.206	912.3	.515		
1.257	892.0	.520		
1.308	907.7	.524		
1.384	917.0	.532		5+04
1.461	938.6	.540	1.32	E+04
1.511	935.9	.544	1.22	E+04
1.562	921.1	.549		E+04
1.613	934.4	.554		E+04
1.689	945.1	.562	1.32	E+04
1.765	959.1	.569		E+04
1.816	955.5	.574		E+04
1.867	926.5	.579		
1.918	894.7	.589		
1.994	737.8	.608		
2.070	617.5	.624		
		,	2.20	

totter orner	1807. 31	243.010	f	4.5	. 20 0007
LOOP PRESSI	IRFIPE-31			11.50	MPA
FCV TEMPER		FCV-1T1		567.2	
LHP INLET		C4-11)		9E+06	
TEST SECTION			1.30	35,00	J/KU
PRESSI				116	MPA
SAT TI	75.50 P		- 1	21.75	
			**	16 21	KG/SEC-M**2
MASS					KU/ SEG-ME
	QUALITY			. 395	LIVE
	ENTHALPY		1.40	2E+06	3/10
QUENCH FROM				****	
ELEVA				102	
VELOC			0		M/SEC
NET LHP PO	Sen ra rr.	ra p		.322	
NET THE POL	WER TO FE	JID		1,76.7	W
VAPOR TEMP	FRATURE ME	ASUREMENT	LOCA	TION	INFORMATION
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
4	()				
1.842	1.943	817.1	.576	.413	
WALL TEMPER	DATURE ME	SUBEMENT	LOCAL	LON II	NEORMATION
ELEVATION	TEMP	XE	LUCKI	HEAT	FLUX
(M)	(K)	V.E.		W/M	
(11)	(,)			11/11	
.013	744.3	. 396		1.35	E+04
.051	730.3	. 400		1.351	
.063	719.0	.401		1.34	E+04
.089	719.6	, 403		1.34	E+04
. 114	718.1	.406		1.341	E+04
. 140	721.2	, 409		1.341	E+04
. 165	714.6	.411		1.33	E+04
. 317	759.8	.426		1.341	E+04
. 394	783.1	. 434		1.341	E+04
. 470	798.3	. 442		1.351	E+04
.546	815.2	, 449		1.341	
.622	831.5	. 457		1.34	E+04
.698	844.8	, 464		1.331	E+04
.775	860.9	.472		1.331	E+04
. 851	873.4	. 480		1.33	E+04
.927	885.5	.487		1.331	E+04
1.003	903.6	. 495		1.331	+04
1.079	913.4	. 502		1.331	+04
1.156	910.0	.510		1.321	E+04
1.206	912.3	.515		1.321	E+04
1.257	892.0	.520		1.23	
1.308	907.7	.524		1.32	
1.384	917.0	.532		1.321	
1.461	938.6	.540		1.321	
1.511	935.9	544		1.221	
1.562	921.1	.549		1.32	
1.613	934.4	.554		1.321	
1.689	945.1	.562		1.32	
1.765	959.1	.569		1.31	
1.816	955.5	.574		1.23	
1.867	926.5	.579		1.40	
1.918	894.7	-589		3.80	
1.994	737.8	.608		3.06	
2.070	617.5	.624		2.26	
2.010	017.3	.024		2.20	

POINT SERIAL NO. 2004 010 (TIME 339 50 SEC)

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

860.8

874.1

884.9

901.0

897.6

869.0

892.3

902.8

927.7

.589

.593

.600

.606

. 611

.615

.619

.626

.633

1.39E+04

1.39E+04

1.39E+04

1.38E+04

1.29E+04

1.39E+04

1.39E+04

1.37E+04

1.37E+04

```
INEL POST-CHE EXPERIMENT NO. 44
POINT SERIAL NO. 1044.010 (TIME= 339.50 SEC)
LOOP PRESSURE(PE-3)
                                    11.93 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                   567.8 K
                                1.312E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
     PRESSURE
                                      .46 MPA
                                   421.71 K
     SAT TEMP
                                   19.10 KG/SEC-M**2
     MASS FLUX
     INLET QUALITY
                                     .452
     INLET ENTHALPY
                               1.584E+06 J/KG
QUENCH FRONT:
                                   -. 102 M
     ELEVATION
                                  0.0000 M/SEC
     VELOCITY
                                    . 324
     QUALITY
NET LIIP POWER TO FLUID
                                   1007.3 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVALION
             DZQF
                       TV
                               XE XA
                       (K)
 (M)
             (M)
1.232
            1.334
                      680.9
                              .560 .446
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                           XE
                                     HEAT FLUX
 (M)
               (K)
                                      W/M##2
               719.4
                          . 454
                                     1.40E+04
  .013
                          . 457
              698.3
                                     1.40E+04
  .051
  .063
              684.4
                          .458
                                     1.39E+04
  .089
              685.7
                          .460
                                     1.39E+04
                          .463
                                     1.39E+04
  . 114
              684.8
              688.4
                          .465
                                     1.39E+04
  . 140
  .165
                                     1.39E+04
              683.0
                          .467
  .318
               726.7
                          .480
                                     1.39E+04
                                     1.39E+04
  . 394
               746.4
                          .487
                           .494
                                     1.39E+04
               758.3
  .470
  .546
               772.1
                          .500
                                     1.39E+04
               784.8
                          .507
                                     1.39E+04
  .622
  .698
               796.2
                          .514
                                     1.39E+04
                          .520
                                     1.39E+04
  .775
              809.9
                           .527
  .851
              821.9
                                     1.39E+04
              831.9
                          .534
                                     1.39E+04
  .927
 1.003
              848.8
                          .540
                                     1.39E+04
 1.079
               859.0
                           .547
                                     1.39E+04
                          .554
 1.156
               856.6
                                     1.39E+04
 1.206
               858.9
                           .558
                                     1.39E+04
              833.0
                          .562
                                     1.29E+04
 1.257
 1.308
              845.8
                           .567
                                     1.39E+04
 1.384
               855.8
                          .573
                                     1.39E+04
                          .580
                                     1.39E+04
 1.461
              878.0
 1.511
              876.0
                           .584
                                     1.29E+04
```

POINT SERI	AL NO. 20	144.010	(TIME	= 339	.50 SEC)
LOOP PRESS	URE(PE-3)			11.93	MPA
FCV TEMPER		CV-1T1		567.8	K
LHP INLET			1.31	2E+06	J/KG
TEST SECTION					
PRESS				.46	MPA
SAI II	EMP		- t _i		K
MASS				19.10	KG/SEC-M##2
	QUALITY			, 452	
INLET	ENTHALPY		1.58	4E+06	J/KG
QUENCH FROM	NT:				
ELEVA	TION			102	
VELOC	ITY		0		M/SEC
QUALT	IY			. 324	
NET LHP PO	WER TO FLU	IID	,	007.3	M
VAPOR TEMP	FRATURE ME	ASUREMENT	LOCA	TION	INFORMATION
ELEVATION		TV	XE	XA	
(M)	(M)	(K)			
4114					
1.537	1.638	727.0	.586	.450	
WALL TEMPER	RATURE MEA	SUREMENT	LOCAT	ION II	NECRMATION
ELEVATION		XE		HEAT	FLUX
(M)	(K)			W/M	**2
.013	719.4	. 454		1.40	
.051	698.3	.457		1.40	
.063	684.4	.458		1.39	
.089	685.7	.460		1.39	
.114	684.8	.463		1.39	
. 140	688.4	. 465		1.39	
. 165	683.0	.467		1.39	
.318	726.7	.480		1.39	
. 394	746.4	.487		1.391	
.470	758.3	, 494		1.391	
.546	772.1	.500		1.391	
.622	784.8	.507		1.391	
.698	796.2	.514		1.391	
.775	809.9	.520		1.391	
.851	821.9	.527		1.391	
.927	831.9	.534		1.391	
1.003	848.8	.540		1.391	
1.079	859.0	.547		1.39	
1.156	856.6	.554		1.391	
1.206	858.9	.558		1.398	
1.257	833.0	.562		1.29	
1.308	845.8	.567		1.39	
1.384	855.8	.573		1.391	
1.461	878.0	.580		1.39	
1.511	876.0	.584		1.291	
1.562	860.8	.589		1.391	
1.613	874.1	.593		1.391	
1.689	884.9	.600		1.39	
1.765	901.0	.606		1.381	
1.816	897.6	.611		1.29	
1.867	869.0	.615		1.39	
1.918	892.3	.619		1.39	
1.994	902.8	.626		1.371	
2.070	927.7	.633		1.37	104

INEL POST-CHE EXPERIMENT NO. 44 POINT SERIAL NO. 3044.010 (TIME= 339.50 SEC) LOOP PRESSURF(PE-3) 11.93 MPA FCV TEMPERATURE (TE-FCV-11) 567.8 K 1.312E+06 J/kG LHP INLET ENTHALPY TEST SECTION: .46 MPA PRESSURE SAT TEMP 421.71 K MASS FLUX 19.10 KG/SEC-M**2 INLET QUALITY . 452 INLET ENTHALPY 1.584E+06 J/KG QUENCH FRONT: ELEVATION -.102 M VELOCITY 0.0000 M/SEC QUALITY . 324 NET LHP POWER TO FLUID 1007.3 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.842 1.943 758.0 .613 .459 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMATI	ON
ELEVATION	TEMP	XE	HEAT FLUX	
(M)	(K)		W/M**2	
.013	719.4	. 454	1.40E+04	
.051	698.3	,457	1.40E+04	
.063	684.4	.458	1.39E+04	
.089	685.7	.460	1.39E+04	
.114	684.8	.463	1.39E+04	
. 140	688.4	.465	1.39E+04	
. 165	683.0	.467	1.39E+04	
. 318	726.7	. 480	1.39E+04	
. 394	746.4	.487	1.39E+04	
.470	758.3	. 494	1.39E+04	
. 546	772.1	.500	1.39E+04	
.622	784.8	.507	1.39E+04	
.698	796.2	.514	1.39E+04	
.775	809.9	.520	1.39E+04	
.851	821.9	.527	1.39E+04	
.927	831.9	.534	1.39E+04	
1.003	848.8	.540	1.39E+04	
1.079	859.0	.547	1.39E+04	
1.156	856.6	.554	1.39E+04	
1.206	858.9	.558	1.39E+04	
1.257	833.0	.562	1.29E+04	
1.308	845.8	.567	1.39E+04	
1.384	855.8	.573	1.39E+04	
1.461	878.0	.580	1.39E+04	
1.511	876.0	.584	1.29E+04	
1.562	860.8	.589	1.39E+04	
1.613	874.1	.593	1.39E+04	
1.689	884.9	.600	1.39E+04	
1.765	901.0	.606	1.38E+04	
1.816	897.6	.611	1.29E+04	
1.867	869.0	.615	1.39£+04	
1.918	892.3	.619	1.39E+04	
1.994	902.8	.626	1.37E+04	
2.070	927.7	.633	1.37E+04	

INEL POST-CHE EXPERIMENT NO. 45

A CONTRACTOR OF THE PROPERTY O	4	
LOUP PRESSURE (PE-3)	11.97	
FCV TEMPERATURE(1E-FCV-11)	567.2	
LHP INLET ENTHALPY	1.309E+06	J/KG
TEST SECTION:		
PRESSURE	.46	MPA
SAT TEMP	421.88	K
MASS FLUX		KG/SEC-M**2
INLET QUALITY	.403	no, or or r
INLET ENTHALPY	1.479E+06	1790
QUENCH FRONT:	1.4135.00	3/10
	100	
ELEVATION	102	M
VELOCITY	0.0000	M/SEC

POINT SERIAL NO. 1045.010 (TIME= 399.50 SEC)

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

.322 559.7 W

1.232 1.334 736.4 .526 .400

QUALITY

NET LHP POWER TO FLUID

ELEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		M/W##5
.013	748.5	.404	1.42E+04
.051	734.5	.408	1.42E+04
.063	724.0	.409	1.42E+04
.089	724.9	.412	1.42E+04
. 114	722.4	. 414	1.42E+04
. 140	725.1	.417	1.42E+04
. 165	716.6	.419	1.41E+04
. 318	762.4	. 435	1.42E+04
. 394	784.9	. 442	1.42E+04
.470	799.1	, 450	1.42E+04
.546	815.9	.458	1.41E+04
.622	831.1	. 465	1.40E+04
.698	844.3	.473	1.40E+04
.775	860.0	.480	1.40E+04
. 851	873.0	.488	1.39E+04
.927	883.4	.495	1.39E+04
1.003	901.2	.503	1.39E+04
1.079	911.5	.510	1.39E+04
1.156	907.6	.518	1.39E+04
1.206	910.5	. 523	1.39E+04
1.257	887.1	. 528	1.29E+04
1.308	901.2	.533	1.39E+04
1.384	909.1	,540	1.39E+04
1.461	931.5	.548	1.38E+04
1.511	928.0	.553	1.28E+04
1.562	908.1	.557	1.39E+04
1.613	920.0	. 562	1.39E+04
1.689	928.8	.570	1.39E+04
1.765	944.4	.577	1.39E+04
1.816	941.1	. 582	1.29E+04
1.867	916.9	.587	1.39E+04
1.918	938.0	.592	1.39E+04
1.994	939.9	.600	1.42E+04
2.070	787.4	.608	1.64E+04

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INEL POST-CHE EXPERIMENT NO. 45
POINT SERIAL NO. 2045.010 (TIME= 399.50 SEC)
                                   11.97 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-1T)
                                   567.2 K
LHP INLET ENTHALPY
                               1.309E+06 J/KG
TEST SECTION:
                                      .46 MPA
     PRESSURE
                                   421.88 K
     SAT TEMP
                                   16.96 KG/SEC-M**2
     MASS FLUX
     INLET QUALITY
                                     .403
                                1.479E+06 J/KG
     INLET ENTHALPY
QUENCH FRONT:
                                   -. 102 M
     ELEVATION
                                  0.0000 M/SEC
     VELOCITY
                                    . 322
     QUALITY
                                   559.7 W
NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                               XE XA
ELEVATION
             DZQF
                       TV
             (M)
                       (K)
 (M)
1.537
            1.638
                     779.0 .555 .409
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                     HEAT FLUX
ELEVATION
              TEMP
                          XE
                                      W/M##2
 (M)
               (K)
  .013
               748.5
                          .404
                                     1.42E+04
                          .408
  .051
               734.5
                          .409
                                     1.42E+04
               724.0
  .063
                                     1.42E+04
                          .412
  .089
               724.9
                          .414
                                     1.42E+04
  . 114
               722.4
                                     1.42E+04
                          .417
  . 140
               725.1
                                     1.41E+04
                          .419
  . 165
               716.6
                                     1.42E+04
                          .435
  .318
               762.4
                                     1.42E+04
                          .442
  . 394
               784.9
                                     1.42E+04
                          .450
  .470
               799.1
                                     1.41E+04
              815.9
                          .458
  .546
                          .465
                                     1.40E+04
  .622
               831.1
                                     1.40E+04
  .698
              844.3
                          .473
                                     1.40E+04
                          480
  .775
              860.0
                                     1.39E+04
                          .488
              873.0
  .851
                                     1.39E+04
                          .495
  927
               883.4
                                     1.395+04
                          .503
               901.2
 1 003
                                     1.39E+04
                          .510
 1.079
              911.5
                                     1.39E+04
                          .518
 1.156
              907.6
                                     1.39E+04
                          .523
 1.206
              910.5
                          .528
                                     1.29E+04
              887.1
 1,257
                                     1.39E+04
               901.2
                           . 533
 1.308
                                     1.39E+04
                           .540
               909.1
 1.384
                                     1.38E+04
                          .548
               931.5
 1.461
                                     1.28E+04
               928.0
                           .553
 1.511
                           .557
                                     1.39E+04
 1.562
               908.1
                                     1.39E+04
               920.0
                          .562
 1.613
                          .579
                                     1.39E+04
 1.689
              928.8
 1.765
               944.4
                          .577
                                     1.39E+04
                          .582
                                     1.29E+04
              941.1
 1.816
              916.9
                          .587
                                     1.39E+04
 1.867
```

.600

.608

1.39E+04

1.42E+04

1.64E+04

938.0

939.9

787.4

1.918

1.994

2.070

INEL POST-CHF EXPERIMENT NO. 45 POINT SERIAL NO. 3045.010 (TIME= 399.50 SEC) LOOP PRESSURE(PE-3) 11.97 MPA FCV TEMPERATURE (TE-FCV-1T) 567.2 K LHP INLET ENTHALPY 1.309E+06 J/KG TEST SECTION: .46 MPA 421.88 K SAT TEMP MASS FLUX 16.96 KG/SEC-M**2 INLET QUALITY .403 INLET ENTHALPY 1.479E+06 J/KG QUENCH FRONT: ELEVATION -.102 M 0.0000 M/SEC VELOCITY QUALITY .322 NET LHP POWER TO FLUID 559.7 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.842 1.943 808.9 . 584 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX W/M**2 (K) (M) .013 748.5 .404 1.42E+04 .051 734.5 .468 1.42E+04 .063 724.0 .409 1.42E+04 .089 724.9 .412 1.42E+04 . 114 722.4 .414 1.42E+04 . 140 725.1 .417 1.42E+04 . 165 716.6 .419 1.41E+04 .318 762.4 .435 1.42E+04 .394 784.9 .442 1.42E+04 .470 799.1 .450 1.42E+04 .546 815.9 458 1.41E+04 .622 831.1 .465 1.40E+04 .698 844.3 .473 1.40E+04 .775 860.0 .480 1 40E+04 .851 873.0 .488 1.39E+04 .927 883.4 .495 1.39E+04 1.003 901.2 .503 1.39E+04 1.079 911.5 .510 1.39E+04 1.156 907.6 .518 1.39E+04 1.206 910.5 .523 1.39E+04 1.257 887.1 .528 1.29E+04 1.308 901.2 .533 1.39E+04 1.384 909.1 -540 1.39E+04 1.461 931.5 .548 1.38E+04 1.511 928.0 .553 1.28E+04 1.562 908.1 .557 1.39E+04 1.613 920.0 .562 1.39E+04 1.39E+04 1.689 928.8 .570 1.765 944.4 .577 1.39E+04 1.29E+04 1.816 941.1 .582 .587 1.39E+04 1.867 916.9

1.918

1.994

2.070

938.0

939.9

787.4

.592

.600

.608

1.39E+04

1.42E+04

1.64E+04

647.5

632.7

.632

. 654

.670

4.39E+04

2.49E+04

2.28E+04

1.918

1.994

2.070

POINT SERIAL NO. 1049.010 (TIME= 387.50 SEC) POINT SERIAL NO. 2049.010 (TIME= 387.50 SEC) 8.48 MPA LOOP PRESSURE(PE-3) 8.48 MPA LOOP PRESSURE(PE-3) 541.4 K FCV TEMPERATURE(TE-FCV-1T) 541.4 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.176E+06 J/KG 1.175E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .45 MPA .45 MPA PRESSURE PRESSURE 421.44 K 14.21 KG/SEC-M**2 .351 421.44 K SAT TEMP SAT TEMP 14.21 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY 1,368E+06 J/KG 1.368E+06 J/KG INLET ENTHALPY INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELLVATION ELEVATION -. 102 M -. 102 M 0.0000 M/SEC 0.0000 M/SEC VELOCITY VELOCITY QUALITY .260 QUALITY .260 NET LIP POWER TO TLUID 529.0 W NET LHP POWER TO FLUID 529.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (M) 1.232 1.334 832.8 .530 .376 1.537 1.638 885.0 .572 .393 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT FLUX ELEVATION TEMP XE W/M##2 (K) W/M**2 (M) (M) (K) .353 .013 759.9 1.73E+04 .013 1.73E+04 759.9 . 353 .359 1.72E+04 . 359 .051 752.6 1.72E+04 .051 752.6 . 360 748.4 1.72E+04 .360 1.72E+04 .063 748.4 .063 .089 . 364 . 364 753.8 1.72E+04 1.72E+04 .089 753.8 . 114 . 368 .368 755.9 1.72E+04 1.72E+04 755.9 . 114 .371 .371 . 140 761.6 1.71E+04 . 140 1.71E+04 761.6 .375 .375 753.8 1.71E+04 1.71E+04 . 165 . 165 753.8 .318 821.8 .397 1.73 £ +04 .397 1.73E+04 .318 821.8 .409 . 394 852.6 1.72E+04 .409 1.72E+04 . 394 852.6 .470 871.9 .420 1.72E+04 8/1.9 .420 1.72E+04 .470 .431 .546 892.7 1.73E+04 .431 1.73E+04 .546 892.7 .442 913.7 1.72E+04 .622 1.72E+04 .622 913.7 .442 .698 .453 1.72E+04 932.0 1.72E+04 .698 932.0 .453 .775 952.6 .464 1.71E+04 .464 1.71E+04 .775 952.6 .851 969.9 .475 1.70E+04 .851 969.9 .475 1.70E+04 983.0 1.69E+04 .927 .486 983.0 .486 1.69E+04 .927 1.003 1003.0 .497 1.69E+04 1.69E+04 1.003 1003.0 .497 1015.1 1.68E+04 1.68E+04 1.079 .508 1.079 1015.1 .508 1.156 1008.8 .519 1.69E+04 1008.8 .519 1.69E+04 1,156 1.206 1011.9 .526 1.69E+04 1011.9 .526 1.69F+04 1.206 1.257 988.1 .533 1.58E+04 1.58E+04 1.257 988.1 .533 .540 1008.5 1.69E+04 1.308 1.308 1008.5 .540 1.69E+04 1016.4 .551 1,384 1.68E+04 1.68E+04 1.384 1016.4 .551 :.461 1037.9 1.68E+04 1.68E+04 .562 1.461 1037.9 .562 1.511 1035.4 .569 1.56E+04 1035.4 .569 1.56E+04 1.511 .575 1.562 1019.6 .576 1,68E+04 1.562 1019.6 1.68E+04 1.613 1032.4 .583 1.67E+04 1032.4 .583 1.675+04 1.613 1.689 1037.7 .594 1.67E+04 1037.7 . 594 1.67E+04 1.689 1.765 1050.1 1.67E+04 .605 1.765 1050.1 .605 1.67E+04 1045.7 1.816 .612 1.55E+04 1.816 1045.7 .612 1.55E+04 .619 1.69E+04 1.867 1016.9 1.69E+04 .619

1.867

1.918

1.994

2.070

1016.9

985.2

632.7

647.5

.632

.654

.670

4.39E+04

2.49E+04

2.28E+04

1.918

1.994

2.070

1016.9

985.2

632.7

647.5

.619

.632

.654

.670

INEL POST-CHE EXPERIMENT NO. 50 INEL POST-CHE EXPERIMENT NO. 49 POINT SERIAL NO. 1050.010 (TIME= 111.50 SEC) POINT SERIAL NO. 3049.010 (TIME= 387.50 SEC) LOOP PRESSURE(PE-3) LOOP PRESSURE (PE-3) 8.48 MPA 8.46 MPA FCV TEMPERATURE (TE-FCV-1T) 541.1 K FCV TEMPERATURE (TE-FCV-1T) 541.4 K 1.174E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY 1.176E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE .45 MPA PRESSURE . 48 MPA 423.27 K SAT TEMP 421.44 K SAT TEMP 19.22 KG/SEC-M**2 MASS FLUX 14.21 KG/SEC-M**2 MASS FLUX INLET QUALITY .256 INLET QUALITY . 351 INLET ENTHALPY 1.174E+06 J/KG INLET ENTHALPY 1.368E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION .069 M -. 102 M .0006 M/SEC VELOCITY 0.0000 M/SEC VELOCITY .272 QUALITY . 260 QUALITY 529.0 W NET EHP POWER TO FLUID 0.0 W NET LIP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF ELEVATION DZQF TV XE XA ELEVALION IV XE XA (M) (M) (M) (M) (K) (K) 1.842 1.943 917.5 .615 .412 1.232 1.163 829.1 .493 .351 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS HEAT FLUX ELEVATION TEMP XE HEAT FLUX ELEVATION TEMP XE M/M**2 W/M##2 (M) (K) W/M**2 (M) (K) 2.92E+04 .013 759.9 . 353 1.73E+04 .013 477.9 .258 .051 3.06E+04 .051 752.6 . 359 1.72E+04 479.9 .266 .360 7.39E+04 .063 748.4 1.72E+0k .063 564.9 .270 .279 4.79E+04 .089 753.8 . 364 1.72E+04 .089 809.9 3.87E+04 .286 . 114 755.9 . 368 1.72E+04 . 114 842.1 . 140 . 371 1.71E+04 .292 3.65E+04 761.6 .140 852.6 .375 1.71E+04 .298 3.40E+04 . 165 . 165 753.8 831.8 . 317 1.73E+04 .329 3.16E+04 .317 821.8 .397 908.5 3.14E+04 . 394 . 344 . 394 852.6 .409 1.72E+04 942.9 3.09E+04 .359 .470 871.9 .420 1.72E+04 .470 962.4 3.04E+04 .431 1.73E+04 978.3 . 374 .546 892.7 .546 2.98E+04 .442 1.72E+04 989.6 .388 .522 913.7 .622 .698 2.90E+04 .698 932.0 .453 1.72E+04 999.9 .402 .775 2.87E+04 .464 1.71E+04 1012.1 .416 .775 952.6 .851 2.82E+04 .430 969.9 . 475 1.70E+04 .851 1023.9 2.78[+04 .486 1.69E+04 1031.2 .443 .927 983.0 .927 2.72E+04 1046.1 .456 .497 1.69E+04 1.003 1003.0 1.003 2.63E+04 1.079 1015.1 .508 1.68E+04 1.079 1051.0 .469 .519 1.69E+04 1034.9 .481 2.52E+04 1.156 1008.8 1.156 2.57E+04 1.206 1011.9 .526 1.69E+04 1.206 1036.0 .489 2.52E+04 .497 1.257 988.1 .533 1.58E+04 1.257 1005.9 2.66E+04 1008.5 .540 1.69E+04 1031.0 .506 1.308 1.308 .518 2.55E+04 1.384 1016.4 .551 1.68E+04 1.384 1036.7 2.47E+04 1.461 1037.9 .562 1.68E+04 1.460 1056.8 .530 1035.4 .569 1.56E+04 1.511 1053.1 .538 2.32E+04 1.511 .546 2.55E+04 1.68E+04 1034.7 1.562 1019.6 .576 1.562 1046.5 2.51E+04 1.67E+04 1.613 . 554 1.613 1032.4 .583 1037.7 .594 1.67E+04 1.689 1044.7 .565 2.39E+04 1.689 .605 1.67E+04 1.765 1054.8 .577 2.30E+04 1.765 1050.1 2.16E+04 1.816 1045.7 .612 1.55E+04 1.816 1050.7 .584

1.69E+04

4.39E+04

2.49E+04

2.28E+04

2.39E+04

2.39E+04

2.33E+04

2.05E+04

1019.7

1046.0

1037.6

1006.8

1.867

1.918

1.994

2.070

.591

.599

.610

.620

2.070

1037.6

1006.8

.620

2.05E+04

46

INEL POST-CHE EXPERIMENT NO. 50

INEL POST-CHE EXPERIMENT NO. 50 POINT SERIAL NO. 2050.010 (TIME= 111.50 SEC) POINT SERIAL NO. 3050,010 (TIME= 111,50 SEC) LOOP PRESSURE(PE-3) 8.46 MPA 8.45 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-1T) 8.46 MPA 541.1 K LHP INLET ENTHALPY 1.174E+06 J/KG FCV TEMPERATURE(TE-FCV-1T) 541.1 K LHP INLET ENTHALPY 1.174E+06 J/KG TEST SECTION: TEST SECTION: 423.27 K 19.22 KG/SEC-M**2 .256 . 48 MPA PRESSURE 423.27 K 19.22 KG/SEC-M**2 .256 PRESSURE SAT TEMP SAT TEMP MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY 1.174E+06 J/KG 1.174E+06 J/KG INLET ENTHALPY INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .069 M ELEVATION .069 M .0006 M/SEC VELOCITY .0006 M/SEC VELOCITY .212 .272 QUALITY QUALITY 0.0 W NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (M) (M) (K) (K) 1.537 1.468 893.3 .541 .370 1.841 1.773 923.1 .587 .394 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) (K) (M) (K) W/M##2 W/M##2 477.9 .013 477.9 .258 2.92E+04 .013 .258 2.92E+04 .051 .266 3.06E+04 .266 479.9 .051 479.9 3.06E+04 7.39E+04 .270 .063 564.9 .270 .063 564.9 7.39E+04 .069 4.79E+04 .089 809.9 .279 809.9 .279 4.79E+04 3.87E+04 .286 .114 .114 842.1 842.1 .286 3.87E+04 .292 3.65E+04 . 140 .292 . 140 852.6 852.6 3.65E+04 . 165 .298 3.40E+04 .298 831.8 . 165 831.8 3.40E+04 3.16E+04 .329 .329 .317 908.5 .317 908.5 3.16E+04 . 344 3.14E+04 . 394 942.9 942.9 . 394 . 344 3.14E+04 3.09E+04 .359 .470 .470 962.4 962.4 . 359 3.09E+04 3.04E+04 . 374 978.3 . 374 .546 978.3 .546 3.04E+04 2.98E+04 . 388 .622 .388 .622 989.6 989.6 2.98E+04 .402 2.90E+04 999.9 .698 .698 999.9 .402 2.90E+04 2.87E+04 .775 1012.1 .416 .775 1012.1 .416 2.87E+04 2.82E+04 .851 .851 1023.9 . 430 1023.9 . 430 2.82E+04 2.78E+04 .927 1031.2 . 443 .927 1031.2 .443 2.78E+04 .456 2.72E+04 1,003 1046.1 1.003 1046.1 .456 2.72E+04 2.63E+04 1051.0 .469 1.079 1,079 1051.0 .469 2.63E+04 1.156 .481 2.52E+04 1,156 1034.9 1034.9 .481 2.52E+04 2.57E+04 1,206 1036.0 .489 1,206 1036.0 2.57E+04 .489 2.52E+04 1.257 1005.9 .497 1,257 1005.9 .497 2.52E+04 1031.0 .506 2.66E+04 1.308 1.308 1031.0 .506 2.66E+04 2.55E+04 1.384 1036.7 .518 1.384 1036.7 .518 2.55E+04 2.47E+04 1.460 1056.8 .530 1.460 1056.8 .530 2.47E+04 2.32E+04 1.511 1053.1 .538 1.511 1053.1 .538 2.32E+04 .546 2.55E+04 1034.7 1.562 1.562 1034.7 . 546 2.55E+04 .554 2.51E+04 1046.5 1.613 1.613 1046.5 .554 2.51E+04 1044.7 .565 2.39E+04 1.689 1.689 1044.7 .565 2.39E+04 .577 2.30E+04 1054.8 1.765 1.765 1054.8 .577 2.30E+04 1050.7 .584 2.16E+04 1.816 1.816 1050.7 .584 2.16E+0# 1019.7 .591 2.39E+04 1.867 1.867 1019.7 .591 2.39E+04 .599 2.39E+04 1.918 1046.0 1.918 1046.0 .599 2.39E+04 .610 2.33E+04 1.994 .610

1037.6

1006.8

.620

2.070

2.33E+04

2.05E+04

1017.0

1.994

2.070

.613

.624

2.33E+04

2.34E+04

INEL POST-CHE EXPERIMENT NO. 50 INEL POST-CHE EXPERIMENT NO. 50 POINT SERIAL NO. 1050.020 (TIME= 187.50 SEC) POINT SERIAL NO. 2050.020 (TIME= 187.50 SEC) LOOP PRESSURE(PE-3) 8.47 MPA 8.47 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 543.7 K 543.7 K 1.18/E+06 J/KG LHP INLET ENTHALPY 1.187E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE .48 MPA . 48 MPA **FRESSURE** SAT TEMP 423.43 K 423.43 K SAT TEMP MASS FLUX 18.59 KG/SEC-M**2 18.59 KG/SEC-M**2 MASS FLUX INLET QUALITY .262 .262 INLET QUALITY INLET ENTHALPY 1.187E+06 J/KG 1.187E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .166 M ELEVATION . 166 M ELEVATION .0014 M/SEC VELOCITY .0014 M/SEC VELOCITY QUALITY .293 .293 QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA TV XE XA ELEVATION DZQF (M) (K) (M) (M) (K) (M) 1.537 1.371 864.2 .542 .378 1.066 791.9 .492 .362 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION HEAT LOSS TEMP XE HEAT FLUX HEAT LOSS TEMP XE HEAT FLUX ELEVATION W/M##2 W/M##2 (M) (K) W/M##2 W/M##2 (M) (K) .013 444.5 .264 2.39E+04 2.395 +04 .013 444.5 .264 .270 2.42E+04 .051 447.6 .270 2,42E+04 .051 447.6 .272 2.33E+04 .063 434.1 .272 2.33E+04 434.1 .063 .089 443.1 .276 2.41E+04 .089 443.1 .276 2.41E+04 . 114 449.9 .280 2.61E+04 2.61E+04 . 114 449.9 .280 .286 4.07E+04 .140 448.2 . 140 4.07E+04 448.2 .286 4.69E+04 .165 615.2 .293 4.69E+04 .293 . 165 615.2 .317 .331 851.6 . 331 2.94E+04 2.94E+04 .317 851.6 . 394 . 345 889.0 . 345 . 394 2.85E+04 2.85E+04 889.0 911.7 .359 .470 .359 2.82E+04 2.82E+04 .470 911.7 .373 .546 932.0 2.80E+04 2.80E+04 .373 .546 932.0 .387 2.78E+04 .622 946.5 2.78E+04 .387 .622 946.5 2.74E+04 .698 960.3 .400 2.74E+04 .400 .698 960.3 .775 974.7 . 414 2.72E+04 2.72E+04 974.7 .414 .775 2.70E+04 .851 989.5 .427 2.70E+04 .427 .851 989.5 2.69E+04 .927 999.9 .440 2.69E+04 .440 999.9 .927 1.003 1017.2 . 454 2.69E+04 .454 2.69E+04 1017.2 1.003 1.079 1026.6 .467 2.64E+04 2.64E+04 1.079 1026.6 .467 2.56E+04 1.156 1017.0 .480 2.56E+04 1017.0 .480 1.156 2.58E+04 1.206 1017.3 . 485 2.58E+04 .488 1017.3 1.206 .497 2.49E+04 1.257 983.5 .497 2.49£+04 983.5 1.257 2.63E+04 1.308 1007.7 .505 2.63E+04 1007.7 .505 1,308 2.56E+04 1.384 1020.1 .518 2.56E+04 1020.1 .518 1.384 2.53E+04 1.460 1044.6 .530 2.53E+04 .530 1.460 1044.6 .538 2.35E+04 1.511 1042.0 .538 2.35E+04 1042.0 1.511 .546 2.51E+04 1.562 1022.2 .546 2.51E+04 1.562 1022.2 1.613 1035.2 .555 2.48E+04 1035.2 .555 2.48E+04 1.613 1.689 1039.2 2.42E+04 .567 2.42E+04 .567 1.689 1039.2 1.765 .578 2.37E+04 1.765 1054.1 .578 2.37E+04 1054.1 2.20E+04 1.816 1050.6 .586 2.20E+04 1.816 1050.6 .586 2.33E+04 1.867 1018.4 .593 2.33E+04 1.867 1018.4 .593 .601 1045.4 2.34E+04 2.34E+04 1.918 1.918 1045.4 .601

1.994

2.070

1040.9

1017.0

.613

.624

2.33E+04

2.34E+04

	INEL POST	-CHF EXPE	RIMENT NO. 50			INEL PO	ST-CHE EXP	ERIMENI	NO. 50	
POINT SERIA	AL NO. 305	0.020 (TIME= 187.50 SEC	1	POINT SERIE	AL NO. 1	050,030	(TIME= 2	37.50 SE	C)
LOOP PRESSU	JRE(PE-3)		8.47 MPA 543.7 K 1.187E+06 J/KG		LOOP PRESSI FCV TEMPER LHP INLFT I	URE (PE-3)		8.	18 MPA	
FCV TEMPERA	ATURECTE-FC	V-11)	543.7 K		FCV TEMPERA	ATURE (TE-	FCV-11)	542	.5 K	
LHP INLET E	NTHALPY		1.187E+06 J/KG		LHP INLET	ENTHALPY		1.181E+	16 J/KG	
TEST SECTIO	ON:				TEST SECTION	ON:				
PRESSI	IRE		.48 MPA		PRESS	URE			18 MPA	
SAT TE	MP		423.43 K		SAT TI	EMP		423.	53 K	
MASS F	LUX		18.59 KG/SEC-	-M**2	MASS	FLUX		18.	73 KG/SE	C-W**5
INLET	QUALITY		.262		INLET	QUALITY		2	9	
INLET	ENTHALPY		1.18/E+06 J/KG		INLET	ENTHALPY		1. 18 11 +1	16 J/KG	
QUENCH FROM	VI:		166 4		QUENCH FROM	NI:			10 M	
VELOCA	TV		. 100 M		ELEVA	TION			N MISEC	
OHALLI	V		2014 M/SEC		OUTAL I	TY		.00	14 m/att	
NET THE POL	VER TO FIUL	D	.166 M .0014 M/SEC .293 0.0 W		NET THE POL	WER TO EL	III D	0	.0 W	
			0.0 #		HET ENT FO	MEN TO FE	010			
ELEVATION	DZQF	TV	LOCATION INFORMA	TION	VAPOR TEMPI ELEVATION	ERATURE M	EASUREMENT	LOCATIO	N INFORM	ATTON
(M)	(M)	(K)			(M)	(M)	(K)	7.12		
1.841	1.676	906.3 .	590 . 399		1.232	.994	761.7	.484 .3	61	
WALL TEMPER	RATURE MEAS	UREMENT L	OCATION INFORMAT	ION HEAT LOSS W/M**2	WALL TEMPER	RATURE ME	ASUREMENT	LOCATION	INFORMA	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)		W	/M##2	W/M**2
. 13 1 3	1444	. 6. 63-8	2.39E+04	W/M**2	.013	438.0	.261	E .	407 - CA-4	
.051	147.6	.270	2.42E+04		.051	440.2			42E+04	
.063	434.1	.272	2.338+04		.063	430.4			38E+04	
.089	443.1	.276	2.41E+04		.089	437.0	.273		40E+04	
. 114	449.9	.280	2.61E+04		.114	437.7	.277		43E+04	
. 140	448.2	.286	4.07E+04		. 140	430.0			37E+04	
. 165	615.2	.293	4.69E+04		. 165	432.4			72E+04	
.317	851.6	. 331	2.94E+04		.317	816.1			44E+04	
. 394	889.0	. 345	2.85E+04		. 394	861.9			94E+04	
.470	911.7	. 359	2.82E+04		.470	888.4			84E+04	
.546	932.0 946.5	. 373	2.80E+04		.546	910.5	. 365		78E+04 75E+04	
.622	960.3	. 387	2.78E+04 2.74E+04		. 522	926.9	. 378		71E+04	
.775	974.7	.414	2.72E+04		. 698	941.9 957.1			70E+04	
.851	989.5	.427	2.70E+04		851	972.6	.40.		71E+04	
.927	999.9	.440	2.69E+04		927	983.8	. 432		70E+04	
1.003	1017.2	. 454	2.69E+04		1 003	1002.1		2	68E+04	
1.079	1026.6	.467	2.64E+04		1 079	1012.9		2.	66E+04	
1.156	1017.0	.480	2.56E+04		1.156	1005.8		2.	61E+04	
1.206	1017.3	.488	2.58E+04		1.206	1006.4	.479		61E+04	
1.257	983.5	.497	2.49E+04		1.257	972.6			47E+04	
1.308	1007.7	.505	2.63E+04		1.308	995.9			61E+04	
1.384	1020.1	.518	2.56E+04		1.384	1011.0			55E+04	
1.460	1044.6	. 530	2.53E+04		1.460	1037.1			54E+64	
1.511	1042.0	.538	2.35E+04		1.511	1035.4	. 529	2.	38E+04	
1.562	1022.2	.546	2.51E+04		1.562	1016.4			49E+04	
1.613	1035.2	.555	2.48E+04		1.613	1030.5			49E+04	
1.689	1039.2	.567	2.42E+04		1.689	1036.7	.557		45E+04	
1.765	1054.1	.578	2.37E+04		1.765	1053.2	.569		42E+04	
1.816	1018.4	.586	2.20E+04		1.816	1050.3		2.	26E+04	
1.918	1045.4	.593	2.33E+04 2.34E+04		1.867	1018.2			39E+04	
1.994	1040.9	.613	2.34E+04 2.33E+04		1.918	1045.7		2.	42E+04	
	1017.0	.624	2.34E+04		2.070	1035.1			39E+04 33E+04	
2.070							0.10			

.616

1035.1

1018.6

1.994

2.070

2.39E+04

2.33E+04

POINT SERIAL NO. 3050.030 (TIME= 237.50 SEC) POINT SERIAL NO. 2050.030 (TIME= 237.50 SEC) 8.48 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 8.48 MPA FCV TEMPERATURE (TE-FCV-1T) 542.5 K FCV TEMPERATURE (TE-FCV-11) 542.5 K LHP INLET ENTHALPY 1.181E+06 J/KG LHP INLET ENTHALPY 1.181E+06 J/KG TEST SECTION: TEST SECTION: .48 MPA .48 MPA PRESSURE PRESSURE 423.53 K 423.53 K SAT TEMP SAT TEMP 18.73 KG/SEC-M**2 MASS FLUX MASS FLUX 18.73 KG/SEC-M**2 .259 INLET QUALITY INLET QUALITY .259 INLET ENTHALPY 1.181E+06 J/KG 1.181E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .238 M ELEVATION ELEVATION .238 M .0014 M/SEC .0014 M/SEC VELOCITY VELOCITY .303 QUALITY QUALITY .303 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA TV DZQF TV ELEVATION DZQF ELEVATION XE XA (M) (K) (M) (M) (K) (M) 1.537 1.604 902.4 .581 .397 1.299 847.9 .533 .377 1.841 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS HEAT FLUX HEAT FLUX TEMP XE HEAT LOSS ELEVATION ELEVATION. TEMP XE W/M**2 W/M##2 W/M##2 W/M**2 (M) (K) (M) (K) .261 .261 2.40E+04 .013 438.0 2.40E+04 .013 438.0 2.42E+04 .267 .051 440.2 .267 2.42E+04 .051 440.2 .269 2.38E+04 .063 430.4 .269 2.38E+04 .063 430.4 .273 2.40E+04 2.40E+04 .089 437.0 437.0 .273 .089 .277 . 114 2.43E+04 . 114 437.7 2.43E+04 437.7 .277 . 140 2.37E+04 .281 2.37E+04 . 140 430.0 .281 430.0 3.72E+04 .286 .165 432.4 .286 3.72E+04 . 165 432.4 .321 3.44E+04 .317 816.1 . 321 3.44E+04 .317 816.1 . 337 2.94E+04 861.9 .337 2.9HE+04 861.9 . 394 . 394 2.84E+04 888.4 .351 2.84E+04 .470 888.4 . 351 .470 2.78E+04 . 365 . 365 910.5 2.78E+04 .546 910.5 .546 .378 926.9 2.75E+04 2.75E+04 .622 926.9 .378 .622 2.71E+04 . 392 2.71E+04 941.9 941.9 .698 .392 .698 .405 2.70E+04 .775 2.70E+04 .775 957.1 .405 957.1 2.71E+04 972.6 .418 2.71E+04 972.6 .418 .851 .851 2.70E+04 2.70E+04 .432 .927 983.8 .432 .927 983.8 2.68E+04 1002.1 .445 2.68E+04 1002.1 .445 1.003 1,003 1012.9 .458 2.66E+04 1.079 1012.9 .458 2.66E+04 1.079 2.61E+04 .471 1.156 1005.8 .471 2.61E+04 1.156 1005.8 1006.4 .479 2.61E+04 1.206 1006.4 .479 2.61E+04 1.206 972.6 .488 2.47E+04 1.257 972.6 .488 2.47E+04 1.257 1.308 995.9 .496 2.61E+04 995.9 .496 2.61E+04 1.308 .509 1.384 1011.0 .509 2.55E+04 1.384 1011.0 2.55E+04 .521 2.54E+04 1.460 1037.1 .521 2.54E+04 1.460 1037.1 .529 2.38E+04 1.511 1035.4 .529 2.38E+04 1.511 1035.4 1016.4 .537 2.49E+04 1016.4 .537 2.49E+04 1.562 1.562 .545 .545 2.49E+04 1030.5 2.49E+04 1.613 1030.5 1.613 .557 .557 2.45E+04 1.689 1036.7 2.45E+04 1.689 1036.7 2.42E+04 1.765 1053.2 .569 2.42E+04 1.765 1053.2 .569 .577 2.26E+04 1050.3 .577 2.26E+04 1.816 1050.3 1.816 2.39E+04 1018.2 .585 2.39E+04 1018.2 .585 1.867 1.867 .593 2.42E+04 1.918 1045.7 2.42E+04 1.918 1045.7 .593

1035.1

1018.6

1.994

2.070

.604

.616

2.39E+04

2.33E+04

1052.1

1049.8

1017.6

1045.8

1026.6

1022.6

1.689

1.765

1.816

1.867

1.918

1.994

2.070

2.54E+04

.602 2.49E+04 .614 2.22E+04 .625 2.46E+04

2.52E+04

2.36E+04

2.54E+04

.566 .578

.586

.594

.602

1.689

1.765

1.816

1.867

1.918

1.994

2.070

1033.9

1052.1

1049.8

1017.6

1045.8

1026.6

1022.6

.578

.586

.594

.602

-614

.625

2.52E+04

2.36E+04 2.54E+04 2.49E+04

2.22E+04

2,46E+04

POINT SERIAL NO. 1950,040 (TIME= 287,50 SEC) POINT SERIAL NO. 2050.040 (TIME= 287.50 SEC) FCV 1EMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

8.46 MPA
542.3 K
1.180E+06 J/KG FCV TEMPERATURE(TE-FCV-TT) 8.46 MPA 542.3 K LHP INLET ENTHALPY 1.180E+06 J/KG TEST SECTION:
PRESSURE
SAT TEMP TEST SECTION: SECTION:
PRESSURE
SAT TEMP
MASS FLUX
INLET QUALITY
INLET ENTHALPY
1.180E+06 J/KG PRESSURE .48 MPA
SAT TEMP .423.47 K
MASS FLUX .18.74 KG/SEC-M**2
INLET QUALITY .259
INLET ENTHALPY 1.180E+06 J/KG QUENCH FRONT: QUENCH FRONT: VELOCITY .0016 M/SEC ELEVATION .315 M
VELOCITY .0016 M/SEC
QUALITY .317
NET LHP POWER TO FLUID 0.0 W QUALITY
NET LHP POWER TO FLUID
0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (M) (M) (K) (K) 1.232 .916 744.0 .489 .372 1.537 1.221 824.0 .541 .387 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M**2 W/M**2 (M) (K) W/M##2 W/M**2 434.9 .261 2.51E+04 436.2 .267 2.52E+04 428.6 .269 2.50E+04 433.9 .273 2.51E+04 432.7 .277 2.52E+04 .261 2.51E+04 .267 2.52E+04 .269 2.50E+04 .013 434.9 .013 .051 436.2 .051 .063 428.6 .063 .273 .089 433.9 2.51E+04 .089 .277 2.52E+04 2.49E+04 .114 432.7 . 114 . 140 427.7 . 140 427.7 .281 2.49E+04 . 281 .281 2.49£+04 .285 2.50£+04 .317 4.03£+04 .335 3.37£+04 .351 3.05£+04 .366 2.93£+04 .380 2.89£+04 .394 2.85£+04 . 165 .285 . 165 428.3 428.3 2.50E+04 4.03E+04 3.37E+04 3.05E+04 2.93E+04 2.89E+04 2.85E+04 2.80E+04 2.79E+04 2.50E+04 .317 .317 663.8 .317 663.8 . 394 . 335 . 394 827.3 827.3 .351 862.9 862.9 . 470 .470 890.0 .546 . 366 .546 890.0 .380 .622 909.5 .622 909.5 . 394 .698 926.4 .698 926.4 . 408 2. 80E+04 .422 2. 80E+04 .435 2. 79E+04 .449 2. 78E+04 .462 2. 76E+04 .476 2. 73E+04 942.2 .408 942.2 .775 .775 .422 .851 958.2 .851 958.2 .927 970.0 .435 .927 970.0 2.78E+04 1.003 988.5 .449 1,003 988.5 2.76E+04 2.73E+04 2.72E+04 2.55E+04 1000.8 1.079 .462 1.079 1000.8 .476 1.156 1.156 995.5 995.5 1,206 996.6 . 485 1.206 996.6 . 485 2.72E+04 1.257 962.4 1.257 .493 962.4 . 493 2.55E+04 2.71E+04 985.5 985.5 1.308 .502 1.308 .502 2.71E+04 .515 2.68E+04 2.65E+04 2.47E+04 2.58E+04 1.384 1.384 1002.6 1002.6 2.68E+04 .515 1.460 1039.1 .528 1.460 1030.1 .528 2.65E+04 .537 .537 1.511 1029.3 1.511 1029.3 2.47E+04 1011.2 1.562 .545 1.562 1011.2 . 545 2.58E+04 2.57E+04 2.57E+04 1.613 1025.7 .553 1.613 1025.7 .553 .566 2.54E+04

2.72E+04

2.70E+04

3.50E+04

3.10E+04

2.54E+04

2.49E+04

2.22E+04

2.46E+04

.594

.602

.614

.625

1017.6

1045.8

1026.6

1022.6

1.867

1.918

1.994

2.070

POINT SERIAL NO. 3050.040 (TIME= 287.50 SEC) POINT SERIAL NO. 1050,050 (TIME= 333.50 SEC) 8.46 MPA LOOP PRESSURE(PE-3) 8.51 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 542.3 K 542.7 K LHP INLET ENTHALPY 1.182E+06 J/KG 1.180E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .48 MPA .48 MPA PRESSURE PRESSURE SAT TEMP 423.43 K 423.47 K SAT TEMP MASS FLUX 18.70 KG/SEC-M**2 18.74 KG/SEC-M**2 MASS FLUX INLET QUALITY .259 .260 INLET QUALITY INLET ENTHALPY INLET ENTHALPY 1.180E+06 J/KG 1.182E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .387 M ELEVATION .315 M VELOCITY .0015 M/SEC .0016 M/SEC VELOCITY QUALITY .317 . 334 QUALITY 0.0 W NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XA ELEVATION DZQF IV XE XA ELEVATION DZQF TV XE (M) (M) (K) (M) (K) (M) .845 1.232 .590 .406 714.1 .506 .392 1.841 1.526 876.4 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP HEAT LOSS HEAT FLUX XE HEAT FLUX ELEVATION TEMP XE M/M##2 W/M##2 (M) (K) W/M##2 W/M**2 (M) (K) .262 .013 433.1 .261 2.51E+04 2.62E+04 .013 434.9 .267 2.52E+04 .051 433.8 .268 2.62E+04 .051 436.2 427.4 .063 .270 2.59E+04 .269 2.50E+04 428.6 .063 2.51E+04 .089 432.2 .275 2.60E+04 433.9 .273 .089 .114 .279 .277 2.52E+04 430.4 2.62E+04 .114 432.7 .281 2.49E+04 .140 426.6 .283 2.60E+04 . 140 427.7 .285 . 165 428.3 2.50E+04 427.0 .288 2.61E+04 . 165 434.2 . 314 .317 4.03E+04 .317 2.73E+04 .317 663.8 . 394 . 394 3.37E+04 740.4 .336 6.52E+04 827.3 . 335 3.05E+04 .470 .361 3.44E+04 833.6 .351 .470 862.9 .366 .546 2.93E+04 869.8 .377 3.15E+04 .546 890.0 .622 3.03E+04 909.5 .380 2.89E+04 893.1 . 392 .622 2.85E+04 .698 912.7 .407 2.95E+04 .698 926.4 . 394 2.80E+04 .775 930.4 .421 2.92E+04 .775 .408 942.2 .422 2.80E+04 .851 946.6 2.91E+04 958.2 . 436 .851 .435 2.79E+04 .927 959.2 . 450 2.89E+04 970.0 .927 2.78E+04 1.003 977.9 .464 2.87E+04 1,003 988.5 . 449 .478 .462 2.76E+04 1.079 990.6 2.85E+04 1.079 1000.8 995.5 .476 2.73E+04 1.156 986.8 .492 2.85E+04 1.156 996.6 .485 2.72E+04 1.206 988.1 .501 2.85E+04 1.206 1.257 1.257 962.4 .493 2.55E+04 953.9 .510 2.69E+04 2.71E+04 1.308 985.5 .502 976.7 .519 2.85E+04 1.308 1.384 .515 2.68E+04 995.4 .533 2.83E+04 1.384 1002.6 .547 2.65E+04 1,460 1023.8 1030.1 .528 2.80E+04 1.460 .537 1.511 1029.3 2.47E+04 1.511 1023.7 .556 2.60E+04 2.58E+04 1.562 1011.2 .545 1.562 1006.5 .565 2.79E+04 .574 2.57E+04 1.613 1021.9 2.76E+04 1.613 1025.7 .553 2.54E+04 .587 1.689 1032.1 2.73E+04 1.689 1033.9 .566 .578 2.52E+04 1.765 1051.4 .601 2.69E+04 1.765 1052.1 1049.8 .586 2.36E+04 1.816 1049.3 .609 2.51E+04 1.816

1.867

1.918

1.994

2.070

1017.0

1045.5

1015.9

1018.4

.618

.627

.642

.658

1.994

2.070

1045.5

1015.9

1018.4

.627

.642

.658

2.70E+04

3.50E+04

3.10E+04

```
POINT SERIAL NO. 3050.050 (TIME= 334.50 SEC)
POINT SERIAL NO. 2050.050 (TIME= 333.50 SEC)
LOOP PRESSURE(PE-3)
                                  8.51 MPA
                                                                     LOOP PRESSURE(PE-3)
                                                                                                        8.46 MPA
FCV TEMPERATURE( IE-FCV-11)
                               542.7 k
                                                                     FCV TEMPERATURE (TE-FCV-11)
                                                                                                      542.7 K
LHP INLET ENTHALPY
                            1.182E+06 J/KG
                                                                     LHP INLET ENTHALPY
                                                                                                   1.182E+06 J/KG
TEST SECTION:
                                                                     TEST SECTION:
    PRESSURE
                                   . 48 MPA
                                                                          PRESSURE
                                                                                                         . HB MPA
    SAT TEMP
                              423.43 K
                                                                          SAT TEMP
                                                                                                      423.42 K
    MASS FLUX
                                                                                                    18.69 KG/SEC-M**2
                              18.70 KG/SEC-M**2
                                                                          MASS FLUX
     INLET QUALITY
                               .260
                                                                          INLET QUALITY
                                                                                                     .260
    INLET ENTHALPY
                            1.182E+06 J/KG
                                                                          INLET ENTHALPY
                                                                                                   1.182E+06 J/KG
QUENCH FRONT:
                                                                     QUENCH FRONT:
    ELEVATION
                                  .387 M
                                                                          ELEVATION
                                                                                                        .388 M
    VELOCITY
                                 .0015 M/SEC
                                                                          VELOCITY
                                                                                                       .0015 M/SEC
    QUALITY
                                 . 334
                                                                          QUALITY
                                                                                                       .335
NET LHP POWER TO FLUID
                                  0.0 W
                                                                     NET LIP POWER TO FLUID
                                                                                                         0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                   TV
                            XE XA
                                                                     FLEVATION DZQF
                                                                                        TV
                                                                                                  XE XA
            (M)
 (M)
                     (K)
                                                                       (M)
                                                                                  (M)
                                                                                           (K)
 1.537
           1.150
                  808.2 .560 .407
                                                                      1.841
                                                                                 1.453 864.8 .614 .427
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                     XE
                                 HEAT FLUX
                                               HEAT LOSS
                                                                     ELEVATION TEMP XE HEAT FLUX
                                                                                                                      HEAT LOSS
 (M)
                                  W/M*#2
              (K)
                                                W/M*#2
                                                                       (M)
                                                                                    (K)
                                                                                                        W/M##2
                                                                                                                      W/M##2
                        .262
 .013
             433.1
                                  2.62E+04
                                                                                   433.0
                                                                       .013
                                                                                              .262
                                                                                                        2.63E+04
 .051
                        .268
             433.8
                               2.62E+04
                                                                       .051
                                                                                   433.7
                                                                                              .268
                                                                                                        2.62E+04
  .063
             427.4
                                                                                             .271
                        .270
                                  2.59E+04
                                                                       .063
                                                                                   427.4
                                                                                                        2.61E+04
  .089
             432.2
                        .275
                                 2.60E+04
                                                                                              .275
                                                                       .089
                                                                                   432.2
                                                                                                        2.61E+04
  .114
             430.4
                        .279
                                 2.62E+04
                                                                       .114
                                                                                   430.4
                                                                                              .279
                                                                                                        2.63E+04
  .140
             426.6
                        .283
                                 2.60E+04
                                                                       . 140
                                                                                              .283
                                                                                                       2.61E+04
                                                                                   426.6
             427.0
                                                                                             .288
  . 165
                        .288
                                  2.61E+04
                                                                       . 165
                                                                                   427.0
                                                                                                       2.62E+04
             434.2
                                                                       .317
  .317
                        . 314
                                  2.73E+04
                                                                                   434.0
                                                                                              . 314
                                                                                                       2.73E+04
  . 394
             740.4
                                                                                              . 337
                        . 336
                                  6.52E+04
                                                                       . 394
                                                                                   723.3
                                                                                                       6.50E+04
  4713
             833.6
                                3.44E+04
                        .361
                                                                       .470
                                                                                   832.8
                                                                                              . 361
                                                                                                        3.48E+04
  .546
             869.8
                        .377
                                3.15E+04
                                                                       .546
                                                                                   869.3
                                                                                              .377
                                                                                                        3.16E+04
  .622
                                                                                              . 393
                                                                                                        3.03[+04
             893.1
                        .392
                                3.03E+04
                                                                       .622
                                                                                   892.7
  .698
             912.7
                        .407
                                 2.95E+04
                                                                       .698
                                                                                   912.4
                                                                                              .407
                                                                                                        2.96[+04
 .775
             930.4
                        .421
                                 2.92E+04
                                                                       .775
                                                                                   930.2
                                                                                              .422
                                                                                                        2.93E+04
  .851
             946.6
                        .436
                                 2.91E+04
                                                                                   946.4
                                                                                                       2.92E+04
                                                                       .851
                                                                                              .436
  .927
             959.2
                                 2.89E+04
                        .450
                                                                       .927
                                                                                   959.0
                                                                                              .450
                                                                                                       2.90E+04
 1.003
             977.9
                        .464
                                  2.87E+04
                                                                                              .465
                                                                      1.003
                                                                                   977.7
                                                                                                       2.89E+04
 1.079
             990.6
                        .478
                                  2.85E+04
                                                                      1.079
                                                                                   990.5
                                                                                              .479
                                                                                                       2.86E+04
 1.156
             986.8
                        .492
                                  2.85E+04
                                                                      1.156
                                                                                   986.6
                                                                                              .493
                                                                                                       2.86E+04
 1.206
             988.1
                        .501
                                  2.85E+04
                                                                      1.206
                                                                                   987.9
                                                                                                       2.86E+04
                                                                                              .502
 1.257
             953.9
                        .510
                                  2.69E+04
                                                                      1.257
                                                                                   953.7
                                                                                              .511
                                                                                                       2.71E+04
 1.308
             976.7
                        .519
                                  2.85E+04
                                                                      1.308
                                                                                   976.5
                                                                                              .520
                                                                                                       2.86E+04
 1.384
             995.4
                        .533
                                 2.83E+04
                                                                      1.384
                                                                                   995.2
                                                                                              . 534
                                                                                                       2.83E+04
                        .547
 1.460
             1023.8
                                  2.80E+04
                                                                      1,460
                                                                                  1023.7
                                                                                              .548
                                                                                                        2.81E+04
 1.511
             1023.7
                        .556
                                  2.60E+04
                                                                      1.511
                                                                                  1023.6
                                                                                              .557
                                                                                                        2.62E+04
 1.562
             1006.5
                        .565
                                  2.79E+04
                                                                      1.562
                                                                                  1006.4
                                                                                              .566
                                                                                                        2.77E+04
 1.613
             1021.9
                        .574
                                  2.76E+04
                                                                                              .575
                                                                      1.613
                                                                                  1021.8
                                                                                                        2.74E+04
 1.689
             1032.1
                        .587
                                  2.73E+04
                                                                      1.689
                                                                                  1032.0
                                                                                              .588
                                                                                                        2.71E+04
 1.765
             1051.4
                        .601
                                  2.69E+04
                                                                      1.765
                                                                                  1051.4
                                                                                              .602
                                                                                                        2.71E+04
 1.816
             1049.3
                        .609
                                  2.51E+04
                                                                      1.016
                                                                                  1049.3
                                                                                              .610
                                                                                                        2.52E+04
 1.867
            1017.0
                        .618
                                  2.72E+04
                                                                      1.867
                                                                                  1017.0
                                                                                              .619
                                                                                                        2.73E+04
```

1.918

1.994

2.070

1045.4

1015.1

1017.8

.628

.642

.657

2.71E+04

3.06E+04

3.01E+04

INEL POST-CHE EXPERIMENT NO. 50

POINT SERIAL NO. 1050.060	(TIME= 390.50 SEC)	POINT SERIAL NO. 2050.060	(TIME= 390.50 SEC)
LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-11) LHP INLET ENTHAL PY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHAL PY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	8.47 MPA 542.6 K 1.182E+06 J/KG .48 MPA 423.33 K 18.72 KG/SEC-M**2 .260 1.182E+06 J/KG .469 M .0013 M/SEC .348 0.0 W	LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	8.47 MPA 542.6 K 1.182E+06 J/KG .48 MPA 423.33 K 18.72 KG/SEC-M**2 .260 1.182E+06 J/KG .469 M .0013 M/SEC .348 0.0 W
VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV	LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV	XE XA
1.232 .763 683.8	.502 .399	1.537 1.067 781.7	.558 .412
WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/M**2 W/M**2	WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/M**2 W/M**2
.013	2.68E+04 2.67E+04 2.67E+04 2.67E+04 2.67E+04 2.67E+04 2.76E+04 2.71E+04 2.71E+04 3.12E+04 3.13E+04 3.04E+04 2.97E+04 2.95E+04 2.94E+04	(M) (M) (K) 1.537 1.067 781.7 WALL TEMPERATURE MEASUREMENT ELEVATION TEMP (K) (M) (K) .013 431.7 .262 .051 431.9 .269 .063 426.4 .271 .089 430.7 .275 .114 428.6 .279 .140 425.8 .284 .165 426.0 .288 .165 426.0 .288 .317 428.3 .315 .394 433.5 .328 .470 658.5 .348 .546 834.9 .370 .622 869.9 .386 .775 916.2 .416 .851 933.9 .431 .927 947.3 .445 .927 947.3 .445 1.003 966.3 .459 1.079 979.3 .474 1.156 976.6 .488 1.206 978.0 .498 1.257 943.4 .507 1.308 966.2 .516 1.384 986.6 .531 1.460 1016.4 .545 1.511 1017.2 .554 1.562 1002.1 .563 1.460 1016.4 .545 1.511 1017.2 .554 1.562 1002.1 .563 1.613 1018.1 .572 1.689 1030.1 .586 1.765 1050.9 .600 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609 1.816 1049.2 .609	2.68E+04 2.67E+04 2.67E+04 2.67E+04 2.67E+04 2.71E+04 2.76E+04 3.42E+04 3.13E+04 3.04E+04 2.97E+04 2.97E+04 2.93E+04 2.94E+04 2.92E+04 2.92E+04 2.92E+04 2.95E+04

2.070

.668

4.80E+04

```
POINT SERIAL NO. 3050.060 (TIME= 391.50 SEC)
                                                                       POINT SERIAL NO. 1050.070 (TIME= 448.50 SEC)
LOOP PRESSURE(PE-3)
                                  8.45 MPA
                                                                       LOOP PRESSURE (PE-3)
                                                                                                         8.47 MPA
                               542.6 K
                                                                       FCV TEMPERATURE(TE-FCV-1T) 543.0 K
LHP INLET ENTHALPY 1.184E+06 J/KG
FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY
                           1.182E+06 J/KG
TEST SECTION:
                                                                       TEST SECTION:
     PRESSURE
                                   . 48 MPA
                                                                            PRESSURE
                                                                                                           . 48 MPA
                                                                                                     423.35 K
18.65 KG/SEC-M**2
     SAT TEMP
                                423.33 K
                                                                            SAT TEMP
                              18.72 KG/SEC-M**2
.260
     MASS FLUX
                                                                            MASS FLUX
     INLET GUALITY
                                                                            INLET QUALITY
                                                                                                          .261
     INLET ENTHALPY
                           1.182E+06 J/KG
                                                                            INLET ENTHALPY
                                                                                                   1.184E+06 J/KG
QUENCH FRONT:
                                                                       QUENCH FRONT:
     ELEVATION
                                   .471 M
                                                                            ELEVATION
                                                                                                           .547 M
                                 .0013 M/SEC
     VELOCITY
                                                                            VELOCITY
                                                                                                         .0013 M/SEC
                                  .349
     QUALITY
                                                                            QUALITY
                                                                                                         . 362
NET THE POWER TO FLUID
                                   0.0 W
                                                                       NET LHP POWER TO FLUID
                                                                                                          0.0 W
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                   TV
                                                                       ELEVATION DZQF
                            XE XA
                                                                                            IV
                                                                                                    XE XA
 (M)
            (M)
                                                                        (M)
                      (K)
                                                                                   (M)
                                                                                             (K)
1.841
            1.371 851.4 .615 .432
                                                                       1.232
                                                                                   .685 657.3 .500 .407
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                              HEAT LOSS
ELEVATION
           TEMP XE HEAT FLUX
                                                                       ELEVATION
                                                                                    TEMP XE HEAT FLUX
                                                                                                                        HEAT LOSS
                                   W/M##2
  (M)
              (K)
                                                 W/M##2
                                                                        (M)
                                                                                     (K)
                                                                                                          W/M##2
                                                                                                                         W/M##2
             431.6
                        .262
                                  2.70E+04
                                                                        .013
  .013
                                                                                     430.7
                                                                                                .263
                                                                                                          2.70E+04
                                   2.69E+04
  .051
                        .269
              431.9
                                                                        .051
                                                                                     430.8
                                                                                                .270
                                                                                                          2.72E+04
  .063
                        .271
                                   2.68E+04
                                                                                    425.9
              426.3
                                                                        .063
                                                                                                .272
                                                                                                          2.70E+04
  .089
              430.6
                        .275
                                   2.69E+04
                                                                        .089
                                                                                     429.9
                                                                                                .276
                                                                                                          2.70E+04
                                   2.69E+04
  .114
              428.5
                         .280
                                                                         .114
                                                                                     427.7
                                                                                                .281
                                                                                                          2.70E+04
                                   2.69E+04
  .140
              425.8
                         .284
                                                                         . 140
                                                                                                .285
                                                                                     425.4
                                                                                                          2.70E+04
                        .288
  . 165
                                   2.69E+04
                                                                         . 165
              425.9
                                                                                     425.6
                                                                                                .290
                                                                                                          2.70E+04
  .317
                                   2.73E+04
              428.2
                         .315
                                                                         .317
                                                                                     426.4
                                                                                                . 316
                                                                                                          2.71E+04
                                  2.81E+04
  . 394
              433.3
                         .328
                                                                         .394
                                                                                     428.5
                                                                                                . 330
                                                                                                          2.72E+04
             629.7
  .470
                         . 349
                                  5.51E+04
                                                                         .470
                                                                                     446.4
                                                                                                . 344
                                                                                                          2.95E+04
                        .371
  .546
              834.1
                                   3.43E+04
                                                                         .546
                                                                                    618.4
                                                                                                . 362
                                                                                                          4.50E+04
                                  3.15E+04
                                                                         .622
  .622
              869.5
                         .387
                                                                                    835.7
                                                                                                .382
                                                                                                          3.47E+04
              895.0
                         .402
                                  3.05E+04
  .698
                                                                        .698
                                                                                     874.5
                                                                                                . 398
                                                                                                          3.16E+04
              916.0
                         .417
                                   2.98E+04
  .775
                                                                         .775
                                                                                     900.9
                                                                                                .413
                                                                                                          3.04E+04
                         .431
                                   2.97E+04
  .851
              933.7
                                                                         .851
                                                                                     921.6
                                                                                                .428
                                                                                                          2.99F+04
  .927
              947.0
                         . 446
                                   2.95E+04
                                                                         .927
                                                                                     936.4
                                                                                                41.3
                                                                                                          2.95E+04
              966.1
                         .460
                                   2.95E+04
 1.003
                                                                        1.003
                                                                                    956.3
                                                                                                .4.7
                                                                                                          2.93E+04
 1.079
              979.1
                         .475
                                   2.95E+04
                                                                        1.079
                                                                                     969.4
                                                                                                .471
                                                                                                          2.94E+04
 1.156
              976.4
                         .489
                                   2.94E+04
                                                                        1.156
                                                                                     967.2
                                                                                                .486
                                                                                                          2.92E+04
 1.206
              977.8
                         .499
                                   2 93E+04
                                                                        1.206
                                                                                     968.7
                                                                                                .496
                                                                                                          2.93E+04
                                   2.77E+04
 1.257
              943.2
                         .508
                                                                        1.257
                                                                                    934.4
                                                                                                .505
                                                                                                          2.75E+04
 1.308
              966.0
                         .518
                                   2.94E+04
                                                                        1.308
                                                                                    956.6
                                                                                                .514
                                                                                                          2.93E+04
 1.384
              986.5
                         .532
                                   2.91E+04
                                                                        1.384
                                                                                    978.2
                                                                                                .529
                                                                                                          2.93E+04
 1,460
             1016.2
                         .546
                                   2.88E+04
                                                                        1.460
                                                                                    1009.2
                                                                                                .543
                                                                                                          2.88E+04
             1017.0
                         .555
                                   2.69E+04
 1.511
                                                                        1.511
                                                                                    1010.9
                                                                                                .552
                                                                                                          2.72E+04
 1.562
             1001.9
                         .564
                                   2.90E+04
                                                                        1.562
                                                                                    997.0
                                                                                                .561
                                                                                                          2.87E+04
                        .574
             1018.0
                                   2.87E+04
 1.613
                                                                        1.613
                                                                                    1014.1
                                                                                                .571
                                                                                                          2.85E+04
                         .588
                                  2.83E+04
 1.689
             1030.0
                                                                        1.689
                                                                                    1027.9
                                                                                                .585
                                                                                                          2.81E+04
                         .602
                                  2.80E+04
 1.765
             1050.8
                                                                        1.765
                                                                                    1050.1
                                                                                                .598
                                                                                                          2.78E+04
 1.816
                                  2.62E+04
             1049.1
                         .610
                                                                        1.816
                                                                                    1048.9
                                                                                                .607
                                                                                                          2.60E+04
             1017.4
                         .619
                                   2.77E+04
 1.867
                                                                       1.867
                                                                                    1018.2
                                                                                                          2.74E+04
                                                                                                .616
             1046.5
                         .628
                                   2.79E+04
 1.918
                                                                       1.918
                                                                                    1048.2
                                                                                                .625
                                                                                                          2.75E+04
             1009.8
                         .646
                                  4.31E+04
 1.994
                                                                       1.994
                                                                                   1012.5
                                                                                                .638
                                                                                                          2.50E+04
```

2.070

1017.5

.650

2.33E+04

POINT SERIAL NO. 2050.070 (TIME= 448.50 SEC) 8.47 MPA LOOP PRESSURE (PE-3) 543.0 K FCV TEMPERATURE (TE-FCV-1T) 1.184E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .48 MPA PRESSURE 423.35 K SAT TEMP 18.65 KG/SEC-M**2 MASS FLUX INLET QUALITY .261 1.184E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION .547 M .0013 M/SEC VELOCITY . 362 QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.537 .990 761.2 .557 .416

1.537	.990	761.2	.557	.416	
WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION INFORMAT	ION
ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)			W/M**2	W/M**2
.013	430.7	.26	3	2.701+04	
.051	430.8	.27	0	2.72E+04	
.063	425.9	.27	2	2.70E+04	
.089	429.9	.27	6	2.70E+04	
.114	427.7	.28	1	2.70E+04	
. 140	425.4	.28	5	2.70E+04	
. 165	425.6	.29	0	2.70E+04	
.317	426.4	.31	6	2.71E+04	
.394	428.5	. 33	0	2:72E+04	
.470	1:46.4	. 34		2.95E+04	
.546	618.4	. 36	2	4.50E+04	
.622	835.7	. 38	2	3.47E+04	
.698	874.5	. 39		3.16E+04	
.775	900.9	.41	3	3.04E+04	
.851	921.6	. 42	8	2.99E+04	
.927	936.4	.44	3	2.95E+04	
1.003	956.3	.45	7	2.93E+04	
1.079	969.4	.47	1	2.94E+04	
1, 156	967.2	. 48		2.92E+04	
1,206	968.7	.49	6	2.93E+04	
1.257	934.4	.50	5	2.75E+04	
1.308	956.6	.51	4	2.93E+04	
1.384	978.2	.52		2.93E+04	
1.460	1009.2	.54		2.88E+04	
1,511	1010.9	.55		2.72E+04	
1.562	997.0	. 56	1	2.87E+04	
1.613	1014.1	.57		2.85E+04	
1.689	1027.9	. 58	5	2.81E+04	
1.765	1050.1	. 59	8	2.78E+04	
1.816	1048.9	.60		2.60E+04	
1.867	1018.2	.61		2.74E+04	
1.918	1048.2	. 62		2.75E+04	
1.994	1012.5	.63		2.50E+04	
2.070	1017.5	.65		2.33E+04	

POINT SERTAL NO. 3030.070	filmr- 443	, you actor
LOGP PRESSURE (PE-3)	8.47	MPA
FCV TEMPERATURE (TE-FCV-1T)	543.6	K
LHP INLET ENTHALPY TEST SECTION:	1.184E+06	J/KG
PRESSURE	.48	MPA
SAT TEMP	423.35	
MASS FLUX	18.67	KG/SEC-M##2
INLET QUALITY	.261	
INLET ENTHALPY	1.184E+06	J/KG
QUENCH FRONT:		
ELEVATION	. 548	M
VELOCITY	.0013	M/SEC
QUALITY	. 362	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.841 1.293 837.9 .613 .433

ELEVATION	ATURE MEASU TEMP	XE	HEAT FLUX	HEAT LO
(M)	(K)		W/M**2	M/W##5
.013	430.7	.263	2.71E+04	
.051	430.8	.270	2.71E+04	
.063	425.9	.272	2.71E+04	
.089	429.9	.276	2.71E+04	
. 114	427.7	.281	2.70E+04	
. 140	425.4	.285	2.71E+04	
. 165	425.6	.290	2.71E+04	
.317	426.3	.316	2.71E+04	
. 394	428.5	. 330	2.72E+04	
.470	446.1	. 344	2.93E+04	
.546	596.9	. 362	4.50E+04	
.622	834.9	. 382	3.50E+04	
.698	874.1	. 398	3.17E+04	
.775	900.7	.413	3.06E+04	
.851	921.3	.428	2.99E+04	
.927	936.2	. 443	2.95E+04	
1.003	956.1	.457	2.95E+04	
1.079	969.2	.472	2.96E+04	
1,156	967.0	.486	2.93E+04	
1.206	968.5	.496	2.95E+04	
1,257	934.2	.505	2.79E+04	
1.308	956.4	.515	2.97E+04	
1.384	978.1	.529	2.93E+04	
1.460	1009.1	.544	2.90E+04	
1.511	1010.7	.553	2.745+04	
1.562	996.8	.562	2.91E+04	
1.613	1014.0	.572	2.89E+04	
1.689	1027.9	.586	2.84E+04	
1.765	1050.1	.600	2.82E+04	
1.816	1048.9	.609	2.63E+04	
1.867	1018.2	.618	2.76E+04	
1.918	1048.2	.627	2.80E+04	
1.994	1012.5	.642	3.57E+04	
2.070	1017.5	.658	2.94E+04	

985.1

.693

3.26F+04

```
POINT SERIAL NO. 1050,080 (TIME= 502.50 SEC)
                                                                    POINT SERIAL NO. 2050.080 (TIME= 502.50 SEC)
LOOP PRESSURE(PE-3)
                                 8.48 MPA
                                                                    LOOP PRESSURE(PE-3)
                                                                                                      8.48 MPA
                           542.3 K
FCV TEMPERATURE (TE-FCV-1T)
                                                                                                   542.3 K
                                                                    FCV TEMPERATURE ( TE-FCV-1T )
LHP INLET ENTHALPY
                            1.180E+06 J/KG
                                                                    LHP INLET ENTHALPY
                                                                                                1.180E+06 J/KG
TEST SECTION:
                                                                    TEST SECTION:
    PRESSURE
                            .48 MPA
423.22 K
                                 . 48 MPA
                                                                         PRESSURE
                                                                                                       .48 MPA
    SAT TEMP
                                                                                                423.22 K
18.62 KG/SEC-M**2
                                                                         SAT TEMP
    MASS FLUX
                             18.62 KG/SEC-M**2
                                                                         MASS FLUX
    INLET QUALITY
                                                                         INLET QUALITY
                                                                                                      .259
    INLET ENTHALPY
                            1.180E+06 J/KG
                                                                         INLET ENTHALPY
                                                                                              1.180E+06 J/KG
QUENCH FRONT:
                                                                    QUENCH FRONT:
    ELEVATION
                                 .622 M
                                                                         ELEVATION
                                                                                                       .622 M
    VELOCITY
                                .0014 M/SEC
                                                                         VELOCITY
                                                                                                    .0014 M/SEC
    QUALITY
                               . 388
                                                                         QUALITY
                                                                                                     . 388
NET LHP POWER TO FLUID
                                 0.0 W
                                                                    NET LHP POWER TO FLUID
                                                                                                      0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                   TV
                            XE XA
                                                                    ELEVATION DZQF
                                                                                        TV
                                                                                                XE XA
 (M)
            (M)
                    (K)
                                                                     (M)
                                                                                 (M)
                                                                                          (K)
1.232
      .610
                   629.8 .526 .436
                                                                     1.537
                                                                                .915 740.9 .587 .446
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                     XE
                               HEAT FLUX
                                               HEAT LOSS
                                                                    ELEVATION
                                                                                 TEMP
                                                                                       XE HEAT FLUX
                                                                                                                    HEAT LOSS
 (14)
             (K)
                                  W/M##2
                                                W/M##2
                                                                     (M)
                                                                                  (K)
                                                                                                      W/M##2
                                                                                                                     W/M##2
 .013
             429.9
                       .262
                              2.94E+04
                                                                      .013
                                                                                  429.9
                                                                                            .262
                                                                                                      2.94E+04
 .051
                       .269
             430.0
                                 2.94E+04
                                                                                            .269
                                                                      .051
                                                                                  430.0
                                                                                                      2.94E+04
 .063
             425.5
                       .271
                                 2.94E+04
                                                                      .063
                                                                                  425.5
                                                                                            .271
                                                                                                      2.94E+04
 .089
             429.3
                       .276
                                 2.94E+04
                                                                      .089
                                                                                  429.3
                                                                                            .276
                                                                                                      2.94E+04
 . 114
             427.0
                       .281
                                 2.94E+04
                                                                      . 114
                                                                                            .281
                                                                                                      2.94E+04
                                                                                  427.0
 .140
             425.1
                       .286
                                 2.93E+04
                                                                      . 140
                                                                                            .286
                                                                                  425.1
                                                                                                      2.93E+04
 .165
             425.2
                       .291
                                 2.92E+04
                                                                      . 165
                                                                                  425.2
                                                                                            .291
                                                                                                      2.92E+04
 .317
             425.7
                       .320
                                 2.93E+04
                                                                                            .320
                                                                      .317
                                                                                  425.7
                                                                                                      2.93E+04
 .394
             427.2
                       . 334
                                 2.93E+04
                                                                      . 394
                                                                                  427.2
                                                                                            . 334
                                                                                                      2.93E+04
 .470
             437.8
                       . 349
                                 2.99E+04
                                                                                            . 349
                                                                      .470
                                                                                 437.8
                                                                                                      2.99E+04
 .546
             450.0
                       . 364
                               3.21E+04
                                                                                            . 364
                                                                      .546
                                                                                 450.0
                                                                                                      3.21E+04
 .622
             643.8
                       .388
                                 6.41E+04
                                                                      .622
                                                                                  643.8
                                                                                            . 388
                                                                                                     6.41E+04
 .698
             844.1
                       .413
                                3.75E+04
                                                                                 844.1
                                                                                                      3.75E+04
                                                                      .698
                                                                                            .413
 .775
             882.1
                       .431
                                3.43E+04
                                                                      .775
                                                                                            .431
                                                                                 882.1
                                                                                                      3.43E+04
 .851
             908.3
                       .447
                                3.30E+04
                                                                      .851
                                                                                            .447
                                                                                                   3.30E+04
                                                                                  908.3
             926.4
 .927
                        .463
                                3.22E+04
                                                                      .927
                                                                                  926.4
                                                                                            . 463
                                                                                                     3.22E+04
1,003
             947.2
                       .479
                                3.17E+04
                                                                     1.003
                                                                                 947.2
                                                                                            .479
                                                                                                     3.17E+04
1.079
             961.2
                       . 495
                                3.16E+04
                                                                     1.079
                                                                                 961.2
                                                                                            .495
                                                                                                     3.16E+04
1.156
             959.5
                       .510
                               3.15E+04
                                                                                 959.5
                                                                     1.156
                                                                                            .510
                                                                                                     3.15E+04
1.206
             960.6
                       .521
                                3.14E+04
                                                                                            .521
                                                                     1,206
                                                                                                     3.14E+04
                                                                                 960.6
             925.5
1.257
                       .531
                                 2.97E+04
                                                                                            .531
                                                                                                     2.97E+04
                                                                     1.257
                                                                                 925.5
1.308
             947.3
                       .541
                                 3.17E+04
                                                                     1.308
                                                                                 947.3
                                                                                            .541
                                                                                                      3.17E+04
1.384
             970.4
                       .557
                                 3.15E+04
                                                                     1.384
                                                                                 970.4
                                                                                            .557
                                                                                                      3.15E+04
1.460
            1002.1
                       .572
                                 3.14E+04
                                                                                 1002.1
                                                                     1.460
                                                                                            .572
                                                                                                      3.14E+04
1.511
            1004.6
                       .582
                                 2.93E+04
                                                                     1.511
                                                                                 1004.6
                                                                                            .582
                                                                                                      2.93E+04
            992.0
1,562
                       .592
                                 3.12E+04
                                                                     1.562
                                                                                 992.0
                                                                                            .592
                                                                                                      3.12E+04
1.613
            1010.0
                       .602
                                 3.09E+04
                                                                                            .602
                                                                     1.613
                                                                                 1010.0
                                                                                                      3.09E+04
                       .617
1.689
            1025.6
                                 3.05E+04
                                                                     1.689
                                                                                 1025.6
                                                                                            .617
                                                                                                      3.05E+04
1.765
            1048.9
                       .632
                                 3.03E+04
                                                                     1.765
                                                                                 1048.9
                                                                                            .632
                                                                                                      3.03E+04
            1048.2
1.816
                       .642
                                 2.83E+04
                                                                                            .642
                                                                     1.816
                                                                                 1048.2
                                                                                                      2.83E+04
1.867
            1017.7
                       .652
                                 3.04E+04
                                                                     1.867
                                                                                 1017.7
                                                                                            .652
                                                                                                      3.04E+04
1.918
            1047.8
                       .662
                                 3.03E+04
                                                                     1.918
                                                                                 1047.8
                                                                                            .662
                                                                                                      3.03[+04
1.994
            985.5
                       .677
                                 3.15E+04
                                                                     1.994
                                                                                 985.5
                                                                                            .677
                                                                                                      3.15E+04
```

2.070

985.1

.693

3.26E+04

.660

.670

.682

.690

2.88E+04

3.13E+04

3.05E+64

1.49E+04

2.08E+04

1047.8

1016.9

1048.1

973.8

969.6

.643

.653

.663

.678

.694

2.83E+04

3.05E+04

3.25E+04

3.22E+04

3.04E+04

1048.1

1017.7

1047.8

985.3

984.9

1.816

1.867

1.918

1.994

2.070

POINT SERIAL NO. 1050.090 (TIME= 554.50 SEC) POINT SERIAL NO. 3050.080 (TIME= 503.50 SEC) LOOP PRESSURE(PE-3) 8.60 MPA LOOP PRESSURE (PE-3) 8.49 MPA FCV TEMPERATURE(TE-FCV-1T) 543.1 K
LHP INLET ENTHALPY 1.184E+06 J/KG FCV TEMPERATURE(TE-FCV-TT) 542.3 K LIP INLET ENTHALPY 1.180E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE . 48 MPA PRESSURE .48 MPA 423.17 K 423.20 K SAT TEMP SAT TEMP 18.47 KG/SEC-M**2 .261 18.62 KG/SFC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY .259 INLET ENTHALPY 1. 184E+06 J/KG INLET ENTHALPY 1.180E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .693 M .623 M ELEVATION .0013 M/SEC .0014 M/SEC VELOCITY VELOCITY .407 . 388 QUALITY QUALITY 0.0 W NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZQF TV XE XA ELEVATION DZQF (M) (K) (M) (K) (M) (M) 598.9 .532 .452 1.841 1.218 820.0 .648 .463 1.232 .539 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS TEMP ELEVATION XE HEAT FLUX HEAT LOSS W/M**2 W/M##2 W/M**2 (K) (K) W/M**2 (M) (M) 3.06E+04 .262 .013 129.9 2.94E+04 .013 429.5 .264 3.06E+04 429.7 .271 .269 2.93E+04 .051 .051 430.0 .274 3.06E+04 425.5 .271 2.94E+04 425.4 .063 .063 .279 3.05E+04 2.94E+04 .089 428.9 .089 429.3 .276 3.04E+04 . 114 427.0 .281 2.94E+04 . 114 426.4 . 284 3.05E+04 3.05E+04 3.07E+04 3.07E+04 .140 .286 .140 .289 425.1 2.93E+04 424.8 .294 .291 . 165 425.0 .165 425.2 2.93E+04 . 324 2.93E+04 .317 .317 425.1 425.7 .320 .340 . 334 . 394 . 394 427.2 2.93E+04 426.4 .470 .355 3.10E+04 2.99E+04 433.8 437.7 . 349 .470 3.20E+0h . 364 3.18E+04 .546 .546 449.6 438.3 . 370 .386 3.23E+04 6.38E+04 434.8 .622 609.3 .388 .622 .409 3.77E+04 5.85E+04 740.8 .698 843.3 .413 .698 .431 3.68E+04 .775 881.7 3.46E+04 853.2 .433 .775 .851 3.46E+04 3.31E+04 891.3 .450 .851 908.0 .447 3.33E+04 .927 926.2 .464 3.22E+04 .927 914.7 .467 .483 3.25E+04 .479 3.19E+04 1.003 938.3 1,003 947.1 3.17E+04 .500 3.24E+04 .495 953.5 961.0 1.079 1.079 .511 .516 1.156 1.156 3.24E+04 959.4 3.15E+04 953.1 .521 3.23E+04 1,206 960.5 3.15E+04 1.206 954.0 .526 .531 2.99E+04 1.257 925.4 2.99E+04 1.257 918.7 .537 3.23E+04 939.9 1.308 947.1 .541 3.18E+04 1.308 .547 3.23E+04 970.2 .557 3.16E+04 1.384 963.9 .563 1.384 3.15E+04 996.3 .579 3.23E+04 1002.0 1.460 1.460 .573 999.3 .589 3.00E+04 1.511 1004.5 .583 2.94E+04 1.511 .593 3.14E+04 1.562 991.9 3.13E+04 1.562 987.7 .599 1006.5 3.12E+04 1.613 1009.9 .603 3.10E+04 1.613 .610 .625 .618 3.06E+04 1023.9 3.11E+04 1025.5 1.689 1.689 3.04E+04 1.765 1048.2 3.09E+04 .640 1.765 1048.9 .633

1.816

1.867

1.918

1.994

2.070

969.6

.690

2.08E+04

```
POINT SERIAL NO. 2050.090 (TIME= 554.50 SEC)
                                                                                          POINT SERIAL NO. 3050.090 (TIME= 557.50 SEC)
FCV TEMPERATURE(TE-FCV-TT)

LHP INLET ENTHALPY
TEST SECTION:

8.60 MPA
543.1 K
1.184E+06 J/KG
                                                                                         FCV TEMPERATURE(TE-FCV-TT)

LHP INLET ENTHALPY
TEST SECTION:

8.47 MPA
543.1 K
1.184E+06 J/KG
                                                                                          TEST SECTION:
                            .48 MPA
423.17 K
18.47 KG/SEC-M**2
.261
                                                                                               PRESSURE
SAT TEMP
MASS FLUX
INLET QUALITY
INLET ENTHALPY

.48 MFA
423.16 K
18.46 KG/SEC-M**2
1.184E+06 J/KG
      PRESSURE
                                                                                                PRESSURE
      SAT TEMP
      MASS FLUX
      INLET QUALITY
      INLET ENTHALPY 1.184E+06 J/KG
                                                                                          QUENCH FRONT:
QUENCH FRONT:
      ELEVATION
                                                                                                ELEVATION
                                                                                                                                       .697 M
                                   .693 M
.0013 M/SEC
                                                                                                                           .0013 M/SEC
      VELOCITY
                                                                                                VELOCITY
                                         .407
                                                                                                QUALITY
     QUALITY
                                                                                                                                    .408
NET LHP POWER TO FLUID
                                            0.0 W
                                                                                          NET LHP POWER TO FLUID
                                                                                                                                       0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                                          ELEVATION DZQF IV XE XA
  (M)
               (M)
                                                                                           (M)
                                                                                                          (M)
                            (K)
                                                                                                                      (K)
                                                                                           1.841
 1.537 .843 722.0 .594 .458
                                                                                                         1.144 810.1 .656 .473
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                          WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS ,
                                                                                         ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                             W/M##2
                                                              W/M##2
                                                                                          (M)
                                                                                                                                       W/M##2
                                                                                                                                                         W/M##2
  (M)
                  (K)
                                                                                                            (K)
                                                                                                           429.4 .264 3.04E+04

429.7 .271 3.05E+04

425.4 .274 3.04E+04

428.9 .279 3.04E+04

426.4 .284 3.05E+04

424.8 .289 3.04E+04

424.9 .294 3.04E+04
                 429.5 .264 3.06E+04
429.7 .271 3.06E+04
425.4 .274 3.06E+04
428.9 .279 3.05E+04
  .013
                                                                                            .013
  .051
                                                                                            .051
  .063
                                                                                            .063
                                     3.05E+04
3.04E+04
3.05E+04
3.07E+04
3.07E+04
3.10E+04
3.18E+04
3.23E+04
5.85E+04
3.68E+04
3.46E+04
3.24E+04
3.24E+04
3.24E+04
  .089
                                                                                            .089
                              .284
                                                                                            . 114
  . 114
                  426.4
                  424.8
                              .289
                                                                                            . 140
  . 140
                                                                                                                        .289 3.04E+04
.294 3.04E+04
.324 3.05E+04
.339 3.06E+04
.355 3.08E+04
.370 3.10E+04
.386 3.21E+04
.408 5.78E+04
.432 3.73E+04
.450 3.47E+04
.467 3.33E+04
.483 3.29E+04
.499 3.25E+04
.515 3.23E+04
.526 3.23E+04
.536 3.04E+04
   . 165
                              .294
                                                                                            . 165
                  425.0
                                                                                                            424.9
                              .324
                                                                                            .317
                  425.1
                                                                                                            425.0
   .317
                               . 340
                  426.4
   . 394
                                                                                            . 394
                                                                                                            426.3
                               . 355
                  433.8
                                                                                                           433.7
   .470
                                                                                            .470
                               .370
                                                                                            .546
   .546
                  438.3
                                                                                                           437.9
                              .386
   .622
                  434.8
                                                                                            .622
                                                                                                            434.2
                  740.8
                              .409
                                                                                            .698
   .698
                                                                                                            667.2
                              .433
                                                                                            .775
  .775
                  853.2
                                                                                                            851.4
                              .450
   .851
                  891.3
                                                                                            .851
                                                                                                            890.3
   .927
                  914.7
                               .467
                                                                                             .927
                                                                                                            914.2
  1.003
                  938.3
                               .483
                                                                                           1.003
                                                                                                            938.0
  1.079
                  953.5
                               .500
                                                                                           1.079
                                                                                                            953.2
                               .516
  1.156
                  953.1
                                                                                           1.156
                                                                                                            952.8
                              516 3.24E+04

526 3.23E+04

537 2.99E+04

547 3.23E+04

563 3.23E+04

579 3.23E+04

589 3.00E+04

599 3.14E+04

610 3.12E+04

625 3.11E+04
  1,206
                  954.0
                                                                                           1.206
                                                                                                            953.8
                                                                                                                         .536 3.04E+04
.547 3.25E+64
  1.257
                  918.7
                                                                                           1.257
                                                                                                            918.6
  1.308
                  939.9
                                                                                           1.308
                                                                                                            939.6
                                                                                                                        563 3.25F+04

563 3.21E+04

589 3.02E+04

600 3.14E+04

610 3.14E+04

626 3.13E+04
 1.384
                  963.9
                                                                                           1.384
                                                                                                            963.7
                                                                                                           996.1
  1,460
                  996.3
                                                                                           1,460
                                                                                                            999.2
  1.511
                  999.3
                                                                                           1.511
  1.562
                  987.7
                                                                                           1.562
                                                                                                            987.7
  1.613
                 1006.5
                                                                                           1.613
                                                                                                           1006.5
                               .625
                 1023.9
                                                                                                           1024.0
  1.689
                                                                                           1.689
                                       3.09E+04
2.88E+04
                               .640
                                                                                                          1048.3
  1.765
                 1048.2
                                                                                           1.765
                              .650
                                                                                                                         .651
                                                                                                                                 2.91E+04
3.07E+04
  1.816
                 1047.8
                                                                                           1.816
                                                                                                           1047.9
                                       3.13E+04
3.05E+04
1.49E+04
2.08E+04
                               .660
                                                                                                                         .661
  1.867
                 1016.9
                                                                                           1.867
                                                                                                           1017.1
                              .670
  1.918
                 1048.1
                                                                                           1.918
                                                                                                          1048.4
                                                                                                                         .671
                                                                                                                                3.06E+04
                              .682
                                                                                                           980.5
  1.994
                 973.8
                                                                                           1.994
                                                                                                                         .684 2.32E+04
```

2.070

973.3

.697 2.56E+04

PUINT SERT	AL NO. 105	0.100 (11	ME= 619.50 SEC	"	POINT SER	. Ho. 2	2,50.100	Trink- C		
LOOP PRESSI	URE(PE-3)		8.48 MPA		LOOP PRESS	SURE (PE-3)	CCV-1T1	8.	48 MPA	
FCV TEMPER	ATURE (TE-FC	V-11)	543.2 K		THE INLET	ENTHAL PY	C4-11)	1 18554	06 1/86	
LHP INLET I	ENTHALPY		185E+00 J/NO		IEST SECT	ON:		1.1076	00 3710	
IFPI SECTION	UN:		48 MPA		PRESS	SURE			48 MPA	
SAT T	EMP		423.14 K		SAT	EMP		423.	14 K	
MASS	FLUX		18.46 KG/SEC	-M**2	MASS	FLUX		18.	45 KG/SEC	C-M##2
INLET	QUALITY		.262		INLE	QUALITY		. 2	62	
INLET	ENTHALPY	1.	185E+06 J/KG		INLE	ENTHALPY		1.185E+	06 J/KG	
QUENCH FROM	NT:				QUENCH FRO	ONI:			***	
ELEVA	TION		.774 M		FLEV	TITY		no.	14 M	
VELOC	117		.0012 M/SEC		QUAL	TY		.00	35	
NET LHP PO	WER TO FLUI	D	0.0 W	:-M**2	NET LHP PO	OWER TO FLE	JID	0	.0 W	
CAROO TEMP	COATINGE MEA	SHREMENT LO	CATION INFORMA	ATION	VAPOR TEM	PERATURE M	EASUREMENT	LOCATIO	N INFORMA	ATION
LEVATION	DZQF	TV XE	XA		ELEVATION	DZQF	TV	XE X	A	
(M)	(M)	(K)			(M)	(m)	(~)			
1.232	.457	579.1 .54	9 .494	TION HEAT LOSS W/M**2	1.537	.762	704.5	.616 .4	84	
and the second second		HOUSELE LOC	ATLON INFORMAT	LON	WALL TEMPS	RATURE ME	SUREMENT	LOCATION	INFORMAT	ION
LEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOS
(M)	(K)		M/W**2	M/W**5	(M)	(K)		W	\Wass	W/M**2
.013	428.7	.264	3.28E+04	HEAT LOSS W/M**2	.013	428.7	.264	3.	28E+04	
.051	429.2	.272	3.29E+04		.051	429.2	.272	3.	29E+04	
.063	425.3	.275	3.28E+04		.063	425.3	,275	3.	28E+04	
.089	428.9	.281	3.29E+04		.089	428.9	.281	3.	29E+04	
. 114	426.4	.286	3.28E+04		100	420.4	.200	3.	285+04	
. 140	424.9	.291	3.2/1104		165	h25 2	207	3.	205+04	
. 165	425.2	220	3.29E+04		317	425 0	329	3.	29F+04	
.317	425.0	366	3.28E+04		. 394	425.7	346	3.	28E+04	
670	423.1	362	3.30E+04		.470	431.6	362	3.	30E+04	
586	431.0	378	3.33E+04		.546	433.5	. 378	3.	33E+04	
622	428.8	. 395	3.35E+04		.622	428.8	. 395	3.	35E+04	
.698	450.0	,412	3.58E+04		.698	450.0	.412	3.	58E+04	
.775	681.2	.435	5.82E+04		.775	681.2	. 435	5.	82E+04	
.851	858.8	.460	4.01E+04		.851	858.8	. 460	4.	01E+04	
.927	896.0	.479	3.72E+04		.927	896.0	.479	3.	72E+04	
1.003	925.5	.497	3.59E+04		1.003	925.5	.497	3.	59E+04	
1.079	943.7	.515	3.52E+04		1.079	943.7	.515	3.	52E+04	
1.156	945.2	.532	3.481+04		1.130	945.2	.532	3.	481+04	
1.206	946.0	. 544	3,481+04		1 257	940.0	. 244	3.	335+04	
1.257	910.2	.555	3.226 +04		1 308	910.2	. 555	3.	17E+0h	
1.308	930.5	. 200	3.4/6+04		1 384	955 h	583	3. 3. 3.	hee+Oh	
1.384	999.9	. 203	3 hhF+0h		1.460	988 7	600	3.	hhF+0h	
1.400	900.1	611	3.21E+04		1.511	992.4	611	3.	21E+04	
1 562	992.3	622	3.37E+04		1.562	982.3	.622	3.	37E+04	
1.613	1002.0	.633	3.36E+04		1,613	1002.0	.633	3.	36E+04	
1.689	1021.4	.650	3.35E+04		1.689	1021.4	.650	3.	35E+04	
1.765	1047.2	.666	3.33E+04		1.765	1047.2	.666	3.	33E+04	
1.816	1047.1	.677	3.11E+04		1.816	1047.1	.677	3.	11E+04	
1.867	1016.7	.688	3.36E+04		1.867	1016.7	. 688	3.	36E+04	
	1008 6	.699	3.29E+04		1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	1048.6	.699	3.	29E+04	
1.918	1040.0									
1.918	943.0	.709	8.56E+03		1.994	943.0	. 709	8.	DEE+03	

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

982.3

1002.0

1021.5

1047.3

1047.1

1016.8

1048.7

946.0

954.0

.621

.632

.649

.665

.676

.686

.697

3.33E+04

3.30E+04

.710 1.94E+04 .721 2.45E+04

```
POINT SERIAL NO. 3050.100 (TIME= 620.50 SEC)
                                                                                                                                                                           POINT SERIAL NO. 2050.110 (TIME= 686.50 SEC)
FCV TEMPERATURE(TE-FCV-TT)

1 HP INLET ENTHALPY
TEST SECTION.

1 1.185E+06 J/KG
                                                                                                                                                                          FCV TEMPERATURE(TE-FCV-IT)

LHP INLET ENTHALPY
TEST SECTION:

8.46 MPA
542.7 K
1.182E+06 J/KG
                                                                                                                                                                           LOOP PRESSURE(PE-3)
 TEST SECTION:
                                                                                                                                                                           TEST SECTION:
                                                                                                                                                                                    PRESSURE
SAT TEMP
MASS FLUX
            PRESSURE
                                                                                      .48 MPA
                                                                                                                                                                                   PRESSURE ,48 MPA
SAT TEMP 423.40 K
MASS FLUX 18.52 KG/SEC-M**2
INLET QUALITY .260
INLET ENTHALPY 1.182E+06 J/KG
                                                                                                                                                                                                                                                              .48 MPA
           QUENCH FRONT:
                                                                                                                                                                          QUENCH FRONT:
            FLEVATION
                                                                          .776 M
.0012 M/SEC
.435
                                                                                     .776 M
                                                                                                                                                                                    ELEVATION
                                                                                                                                                                                                                                                                .856 M
                                                                                                                                                                                                                                                     .0012 M/SEC
            VELOCITY
                                                                                                                                                                                      VELOCITY
                                                                                                                                                                                    QUALITY
            QUALITY
                                                                                                                                                                                                                                                        .455
 NET LHP POWER TO FLUID
                                                                                    0.0 W
                                                                                                                                                                          NET LHP POWER TO FLUID
                                                                                                                                                                                                                                                              0.0 W
 VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                                                                                                           VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
 ELEVATION DZQF TV XE XA
                                                                                                                                                                           ELEVATION DZQF TV XE XA
   (M)
                               (M)
                                                    (K)
                                                                                                                                                                             (M)
                                                                                                                                                                                                         (M)
                                                                                                                                                                                                                                (K)
  1.841 1.066 792.0 .681 .497
                                                                                                                                                                           1.537
                                                                                                                                                                                                         .681 677.9 .620 .497
 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                                                                                                          WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                                                                                                                          ELEVATION TEMP XE HEAT FLUX
                                                                                                                                                                                                                                                                                           HEAT LOSS
                                                                                    W/M##2
   (M)
                                  (K)
                                                                                                                     W/M##2
                                                                                                                                                                          (M)
                                                                                                                                                                                                            (K)
                                                                                                                                                                                                                                                               W/M**2
                                                                                                                                                                                                                                                                                                  W/M*#2
                                                        .264
.272
.3.26E+04
.275
.3.26E+04
.281
.286
.3.26E+04
.291
.297
.3.27E+04
.329
.3.27E+04
.345
.3.27E+04
.345
.3.31E+04
.378
.3.31E+04
                                                                                                                                                                                                           428.6 .263 3.37E+04
429.1 .271 3.37E+04
425.5 .274 3.37E+04
428.9 .280 3.38E+04
426.3 .285 3.38E+04
425.0 .291 3.36E+04
425.1 .296 3.37E+04
425.0 330 3.36E+04
    .013
                                  428.7
                                                                                                                                                                              .013
    .051
                                  429.2
                                                                                                                                                                              .051
     .063
                                 425.3
                                                                                                                                                                               .063
     .089
                                  428.9
                                                                                                                                                                              .089
      114
                                  426.4
                                                                                                                                                                              .114
      .140
                                  424.9
                                                                                                                                                                              . 140
      . 165
                                  425.2
                                                                                                                                                                              . 165
                                  425.0
                                                                                                                                                                              .317
     .317
                                                                                                                                                                                                            425.0
                                                                                                                                                                                                                                    . 330 3.36E+04
. 346 3.38E+04
. 363 3.38E+04
. 380 3.38E+04
. 397 3.36E+04
. 414 3.41E+04
. 431 3.54E+04
. 453 5.60E+04
. 477 4.03E+04
. 497 3.77F+04
. 515 3.64E+04
. 533 3.58E+04
. 533 3.58E+04
. 545 3.57E+04
. 556 3.34E+04
. 568 3.58E+04
. 586 3.58E+04
. 603 3.56E+04
                                                                                                                                                                                                                                     .330 3.36E+04
                                 425.7
      .394
                                                                                                                                                                              . 394
                                                                                                                                                                                                            425.8
     .470
                                  431.6
                                                                                                                                                                              .470
                                                                                                                                                                                                            430.3
     .546
                                  433.5
                                                                                                                                                                              .546
                                                                                                                                                                                                            431.2
     .622
                                  428.7
                                                                                                                                                                              .622
                                                                                                                                                                                                            426.7
     .698
                                  449.7
                                                                                                                                                                              .698
                                                                                                                                                                                                            438.4
    .775
                                  654.9
                                                                                                                                                                              .775
                                                                                                                                                                                                            440.3
     .851
                                  858.1
                                                                                                                                                                               .851
                                                                                                                                                                                                            589.6
     .927
                                  895.6
                                                                                                                                                                                .927
                                                                                                                                                                                                            861.4
   1.003
                                  925.3
                                                                                                                                                                             1.003
                                                                                                                                                                                                            905.8
   1.079
                                  943.5
                                                                                                                                                                                                            931.4
                                                                                                                                                                             1.079
   1.156
                                  945.1
                                                                                                                                                                             1.156
                                                                                                                                                                                                            937.4
   1.206
                                  945.9
                                                                                                                                                                            1.206
                                                                                                                                                                                                            937.4
   1,257
                                                           .554
                                                                          3.23E+04
3.46E+04
                                  910.2
                                                                                                                                                                             1.257
                                                                                                                                                                                                            903.1
                                                           .565
   1.308
                                  930.4
                                                                                                                                                                             1.308
                                                                                                                                                                                                            922.5
   1.384
                                  955.3
                                                          .582
                                                                         3.45E+04
                                                                                                                                                                             1.384
                                                                                                                                                                                                            948.0
   1.460
                                 988.6
                                                          .599
                                                                            3.44E+04
                                                                                                                                                                             1,460
                                                                                                                                                                                                            982.3
                                                                          3.44+04
3.20E+04
3.38E+04
3.36E+04
3.34E+04
3.33E+04
3.12E+04
   1.511
                                 992.3
                                                          .610
                                                                                                                                                                             1.511
                                                                                                                                                                                                            986.7
```

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

977.9

998.2

1019.2

1046.3

1046.8

1017.5

1050.2

935.1

947.7

.638 3.49E+04 .655 3.48E+04

.672 3.43E+04

.683 3.21E+04 .694 3.39E+04 .705 3.38E+04 .720 2.79E+04 .735 2.92E+04

INEL POST-CHE EXPERIMENT NO. 50

INEL POST-CHE EXPERIMENT NO. 50

POINT SERIAL	NO. 3050).110 (Ti	ME= 686.50 S	EC)	POINT SERIA	L NO. 2	050.120	(TIME = 744	.50 SEC	:)
LOOP PRESSUE	REIPE-31		8.46 MPA		LOOP PRESSU	RE(PE-3)		8.47	MPA	
ECV TEMPERA	TURELTE-FCY	(-1T)	542.7 K		FCV TEMPERA	TURE (TE-	FCV-1T1	543.7	K	
THE INIET OF	NTHAL PY	1	182E+06 1/KG		THE INIET	NTHAL PY		1.187F+06	J/KG	
TEST SECTION	W.		10EE-00 37 NO		TEST SECTIO	N.		1.1011.00	Sel mor	
PRESSI	R.F		LA MPA		PRESSH	RF		4.8	MPA	
SAT TEN	MP		423 00 K		SAT IF	MP		423 50	K	
MASS EI	HV		18 52 WC/S	FC-M**2	MASS F	LHY		18 47	KG/SEC	-M##2
INIET	DIALITY		260	LC-HE	INIET	OHALLTY		262	NOT SEC	
INIET	ENTHAL PV		182F+06 1/VC		INIET	ENTHAL PV		1 187F+06	TZEC	
OUENCH ERON	Linner		10EE 100 37 NO		OUENCH FRON	I.		1.1012.00	37 60	
FI FVAT	LON		856 M		FIFVAT	LON		924	м	
VELOCIT	TV		0012 M/SE		VELOCI	IV		0011	MISEC	
OHALLT	,		455		CHALLT	v .		1188	HI DED	
NET LIP POWE	ER TO FLUID		0.0 W		NET LHP POW	ER TO FLE	UID	0.0	W	
					LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW					
VAPOR TEMPER	RATURE MEAS	UKEMENT LO	CATTON INFOR	MATTON	VAPOR TEMPE	KATURE MI	EASUREMENT	LOCATION	NEORMA	TION
ELEVATION	UZUI	IV XE	. XA		ELEVATION	DZQF	14	AE XA		
(M)	(M)	(K)			(M)	(M)	(K)			
1.841	.986 7	90.5 .68	.508		VAPOR TEMPE ELEVATION (M) 1.537	.613	652.7	.651 .532		
MALL YEMOTON	ATURE MEACU	DEMENT 100	ATION INCOME	ATTON	MALL TEMPER	ATURE ME	SUDEMENT	LOCATION	EODHAT	LON
WALL TEMPERA	TEMP	MEMENI LOC	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	SUREMENT	LUCATION II	FLUX	HEAT LOSS
LLEVALIUN	(K)	AE	HEAT FLUX	LIVERAS	CLEVATION	(K)	A.C.	HEAT	AU.11	HEAT LUSS
(10)	()		M/M""2	W/M2	(11)	()		W/M		M/Mass
.013	428.6	.263	3.37E+04		.013	428.4	.265	3.65	+04	
.051	429.1	.271	3.37E+04		.051	429.2	.274	3.631	+04	
.063	425.5	.274	3.37E+04		.063	425.7	.277	3.616	+04	
.089	428.9	.280	3.38E+04		.089	429.0	.283	3.621	+()4	
. 114	426.3	.285	3.38E+04		. 114	426.3	.289	3.631	+()4	
. 140	425.0	.291	3.36E+04		. 140	425.3	.295	3.621	+04	
. 165	425.1	.296	3.37E+04		. 165	425.3	.301	3.611	+()4	
.317	425.0	. 330	3.36E+04		.317	425.2	. 337	3.621	+04	
. 394	425.8	. 346	3.38E+04		. 394	425.8	. 355	3.621	+04	
.470	430.3	. 363	3.38E+04		.470	429.6	. 373	3.656	+04	
.546	431.2	. 380	3.38E+04		. 546	430.2	. 391	3.656	+04	
.622	426.7	.397	3.36E+04		.622	426.7	. 409	3.641	+()4	
.698	438.4	, 414	3.41E+04		.698	435.2	,427	3.708	+04	
.775	440.3	.431	3.54E+04		.775	433.8	. 446	3.718	+()4	
.851	589.6	.453	5.60E+04		.851	448.9	.464	3.828	+()4	
.927	851.4	.477	4.03E+04		.927	122.8	.489	5.888	+04	
1.003	905.8	.497	3.772+04		1.003	873.9	.514	4.478	+()4	
1.079	931.4	.515	3.545+04		1.079	913.1	.536	4.146	+04	
1.156	937.4	.533	3.581+04		1.156	921.2	.556	3.976	+04	
1.206	937.4	.545	3.571.404		1.206	927.4	.569	3.950	+04	
1.297	903.1	. 226	3.341+04		1.257	894.1	.582	3.691	+04	
1.308	922.5	. 200	3.586+04		1.308	914.1	. 594	3.918	+04	
1.304	0.02	. 500	3.565404		1.384	940.8	.613	3.891	+04	
1.400	902.3	615	3.306+04		1.400	975.6	. 633	3.878	+04	
1 663	980.7	626	3.535+04		1.511	980.6	. 645	3.621	+04	
1.502	977.9	679	3.500.404		1.562	9/3.0	.657	3.846	+04	
1.613	1010 2	.030	3 495 +04		1.613	993.8	.670	3.841	+04	
1.009	1019.2	672	3.466.704		1,069	1010.4	.089	3.816	+04	
1.816	1046.3	693	3 215400		1.765	1044.7	. 708	3.791	+04	
	1017 5	604	3.275404		1.010	1045.8	. 120	3.53E	+04	
1 867		. 0.74	3.396.104		1.00/	1017.5	. 132	3.78L	T ()4	
1.867	1050.2	705	3 385400		1 010	1050 1	25.5	2 25.4	4.034	
1.867 1.918	1050.2	.705	3.38E+04		1.918	1050.1	. 745	3.74E	+04	
1.867 1.918 1.994	1050.2 935.1	.705 .720	3.38E+04 2.79E+04		1.537 WAI L TEMPERIELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.156 1.257 1.308 1.384 1.460 1.511 1.562 1.689 1.765 1.816 1.867 1.918 1.994 2.070	1050.1	. 745	3.74E 4.99E	+04	

1.816

1.867

1.918

1.994

2.070

909.8

POINT SERIAL NO. 3050.120 (TIME= 744.50 SEC) POINT SERIAL NO. 2050.130 (TIME= 814.50 SEC) LOOP PRESSURE(PE-3)

FCV IEMPERATURE(IE-FCV-1T)

LHP INLET INTHALPY

TEST SECTION:

8.52 MPA
543.2 K
1.185E+06 J/KG LOOP PRESSURE(PE-3)

FCV TEMPERATURE(TE-FCV-11)

LHP INLET ENTHALPY

TEST SECTION:

8.47 MPA
543.7 K
1,187E+06 J/KG TEST SECTION: PRESSURE .48 MPA
SAT TEMP 423.50 K
MASS FLUX 18.47 KG/SEC-M**2
INLET QUALITY .262
INLET ENTHALPY 1.187E+06 J/KG
CH FRONT: PRESSURE .48 MPA
SAT TEMP .423.44 K
MASS FLUX .18.53 KG/SEC-M**2
INLET QUALITY .261
INLET ENTHALPY 1.185E+06 J/KG QUENCH FRONT: QUENCH FRONT: .0011 M/SEC .488 ELEVATION 1,003 M VELOCITY .0011 M/SEC QUALITY .520 ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.841 .917 767.7 .726 .543 1,537 .533 620.2 .668 .559 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS
(M) (K) W/M**2 W/M**2 ELEVATION TEMP XE HEAT FLUX HEAT LOSS
(M) (K) W/M**2 W/M**2 428.3 .264 3.85E+04 429.3 .274 3.85E+04 426.2 .277 3.85E+04 426.4 .290 3.85E+04 425.9 .296 3.84E+04 425.8 .302 3.85E+04 425.4 .3h1 3.85E+04 426.1 .360 3.85E+04 426.2 .379 3.85E+04 429.6 .398 3.86E+04 429.6 .5 .417 3.87E+04 430.8 .456 3.89E+04 431.5 .475 3.96E+04 459.4 .546 4.59E+04 599.4 .520 5.87E+04 878.4 .546 4.59E+04 .013 .051 .063 .089 . 114 . 140 . 165 .317 . 394 .470 .546 .622 .698 .775 .851 .927 1,003 1.079 1.156 1.206 882.2 .595 3.90£+04 1.257 904.4 .609 4.11E+04 1.308 1.384 1.384 933.9 .629 4.06E+04 969.6 .649 4.04E+04 1.460 1.460 969.6 .649 4.04£+04 975.2 .662 3.78£+04 968.7 .675 4.04£+04 989.9 .688 4.03£+04 1013.9 .708 3.99£+04 1043.3 .728 3.98£+04 1045.0 .741 3.72£+04 1016.9 .754 3.96£+04 1050.4 .767 3.95£+04 897.3 .788 4.52£+04 923.4 .810 4.29£+04 1.511 1,511 1.562 1.562 1.613 1.613 1.689 1.689

1.765

1.816

1.867

1.918

1,994

2.070

FCV TEMPERATURE(TE-FCV-1T)

LOOP PRESSURE (PE-3)

TEST SECTION:

QUENCH FRONT:

ELEVATION VELOCITY QUALITY

NET LIIP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION

ELEVATION DZQF

(M)

(M)

.394

470

.546

.622

.698

.775

.851

.927

1.003

1.079

1.156

1.206

1,257

1.308

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

(M) .838 1.841

TEMP

(K)

742.6 .747 .568 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

IV

(K)

INEL POST-CHE EXPERIMENT NO. 50

8.52 MPA 543.2 K

.48 MPA

18.53 KG/SEC-M**2

423.44 K

.261

1,003 M

0.0 W

XE HEAT FLUX HEAT LOSS

W/M##2

M/M##2

3.85E+04

3.85E+04

3.84E+04

3.84E+04

3.84E+04

3.85E+04

3.85E+04

3.85E+04

3.86E+04

3.87E+04

3.96E+04

4.09E+04

4.59E+04

4.27E+04

4.21E+04

3.90E+04

4.11E+04

4.06E+04

4.04E+04

3.78E+04

4-04E+04

4.03E+04

3.99E+04

3.98E+04

3.72E+04

3.96E+04

3.95E+04

4.52E+04

4.29E+04

3.85E+04

3.85E+04

.520

XE XA

.0011 M/SEC

POINT SERIAL NO. 3050.130 (TIME= 814.50 SEC)

LHP INIET ENTHALPY 1.185E+06 J/KG

.013 428.3 .051 .063 .089

ELEVATION

.264 .274 429.3 .277 426.2 429.3 .283 .290 .114 426.4 -140 425.9 .296 . 165 425.8 .302 . 341 .317 425.4

426.1

909.9

912.9

882.2

1043.3

429.2 .379 .398 429.6 426.5 .417 3.88E+04 433.1 .436 3.89E+04 430.8 . 456 .475 437.5 454.8 .495 5.87E+04 599.4 .520 878.4 .546

.360

.568

.582

.595

.609 904 4 933.9 .629 969.6 .649 .662 975.2 .675 968.7 989.9 -688 .708 1013.9

.728 .741 1045.0 .754 1016.9 .767 1050.4 897.3 .788 .810 923.4

INEL POST-CHE EXPERIMENT NO. 50

POINT SERIAL NO. 2050.140 (TIME= 886.50 SEC)

LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-11) LHP INLET ENTHALPY 1.183E+06 J/KG TEST SECTION: PRESSURE

SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY

QUENCH FRONT: ELEVATION VELOCITY QUALITY

NET LHP POWER TO FLUID

.563 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION

W/M*#2

8.48 MPA

.48 MPA

423.44 K 18.48 KG/SEC-M**2

542.8 K

.260

1.083 M

.0011 M/SEC

1.183E+06 J/KG

ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 .454 590.2 .700 .600

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 .263 .013 428.0 4.17E+04 .051 429.1 .274 4.17E+04

.063 426.3 .277 4.17E+04 .284 .089 429.4 4.18E+G4 .114 426.6 .291 4.17E+04 . 140 426.1 .298 4.17E+04 .165 4.17E+04 426.0 . 305 .317 425.6 . 347 4.17E+04 . 394 . 367 426.2 4.17E+04 .388 .470 428.7 4.17E+04 .546 429.2 .409 4.19E+64

.622 426.3 4.19E+04 .430 .698 431.7 .451 4.20E+04 .775 429.8 .471 4.20E+04 .851 434.3 .492 4.21E+04 .927 443.0 .514 4.26E+04 4.27E+04 1.003 434.7 .535 1.079 596.6 .562 5.52E+04 1.156 879.2 .590 4.86E+04

1.206 890.9 .606 4.69E+04 .621 1.257 865.9 4.31E+04 1.308 893.4 4.48E+04 .635 1.384 926.5 .657 4.41E+04 1.460 963.5 .679 4.38E+04 1.511 969.5 4.11E+04 .693 1.562 964.2 .707 4.38E+04 .722 1.613 985.5 4.36E+04 - 744 1.689 1011.0 4.34E+04

1041.8 .765 1.765 4.31E+04 1.816 1044.2 .779 1.867 1016.7 .793 1.918 1050.7 .807 1.994 863.1 .829 2.070 910.2 .851

4.02E+04 4.32E+04 4.31E+04 4.50E+04 4.27E+04

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7			
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7			

EXPERIMENT NO. 50	(TIME= 954,50 SEC)	8.47 MPA 543.3 K 1.185£+06 J/KG 423.43 K 18.49 KG/SEC-M**2 1.185£+06 J/KC 1.155 M .0010 M/SEC .603	NE LOCATION INFORMATION XE XA XA	LOCATI	265
INEL POST-CHF E	POINT SERIAL NO. 2050, 150	LOOP PRESSURE (PE-3) FCV TEMPERATURE (1E-FCV-11) LHP INLET ENHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET GUALITY INLET GUALITY OUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	OR TEN VAFION M)	TEMPERATURE NEASUREMEN X (K)	
XPERIMENT NO. 50	(TIME= 887.50 SEC)	8.48 MPA 542.8 K 1.163E+66 J/KG 423.46 K 18.49 KG/SEC-M**2 260 1.183E+06 J/KG 1.084 M .0011 M/SEC .563 0.0 W	XE XA INFORMATION ZBS GGZ	0.2	4 1.7E+04 4 1.7E+04 4 1.7E+04 4 1.7E+04 4 1.7E+04 4 1.7E+04 4 1.7E+04 4 1.7E+04 4 1.7E+04 6 1.7E+04
INEL POST-CHE EXP	0,140	LOOP PRESSURT(PE-3) FCV IEMPERATURE(TE-FCV-11) LUP INIT ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INIT QUALITY INIT FRONT: ELEVATION VELOCITY QUALITY AND LUP POWER TO FLUID	VAPOR TEMPERATURE MEASUREMENT ELEVATION 02QF TV (K) (K) (K)	LL TEMPERATURE MEASUREMENT EVALUON (K)	

. 854

.870

.887

.912

.937

4.99E+04

4.67E+04

5.06E+04

4.98E+04

5.10E+04

5.16E+04

1038.8

1042.2

1016.1

1050.1

808.4

889.7

1.765

1.816

1.867

1.918

1.994

2.070

1,765

1.816

1.867

1.918

1.994

2.070

1040.4

1043.4

1016.4

1050.6

835.7

904.2

. 794 .809

.824

.839

.862

.885

```
POINT SERIAL NO. 2050.160 (TIME=1020.50 SEC)
POINT SERIAL NO. 3050.150 (TIME= 953.50 SEC)
                                                                     FCV TEMPERATURE(TE-FCV-TT)
                                                                                                       8.48 MPA
                                 8.49 MPA
LOOP PRESSURE(PE-3)
                                                                                                  543.4 K
                              543.3 K
FCV TEMPERATURE (TE-FCV-1T)
                                                                     LHP INLET ENTHALPY
                                                                                                  1.186E+06 J/KG
THP INLET ENTHALPY
                             1.185E+06 J/KG
                                                                     TEST SECTION:
TEST SECTION:
                                                                                                         . 48 MPA
                                  .48 MPA
                                                                          PRESSURE
    PRESSURE
                                                                                                   423,44 K
                                                                          SAT TEMP
    SAT TEMP
                              423.43 K
                                                                                                    18.53 KG/SEC-M**2
                                                                          MASS FLUX
                              18.46 KG/SEC-M**2
    MASS FLUX
                                                                          INLET QUALITY
                                                                                                        .261
    INLET QUALITY
                                  .261
                                                                                                  1.186E+06 J/KG
                                                                          INLET ENTHALPY
     INLET ENTHALPY
                             1.185E+06 J/KG
                                                                     QUENCH FRONT:
QUENCH FRONT:
                                                                                                      1.222 M
                                1.154 M
                                                                          ELEVATION
    ELEVATION
                                                                                                       .0010 M/SEC
                                                                          VELOCITY
                               .0010 M/SEC
    VELOCITY
                                                                                                       .656
                                 .602
                                                                          QUALITY
    QUALITY
                                                                     NET LHP POWER TO FLUID
                                                                                                        0.0 W
NET LHP POWER TO FLUID
                                0.0 W
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                          IV
                                                                     ELEVATION
                                                                                 DZQF
                                                                                                  XE XA
                            XE XA
ELEVALION DZQF
                    TV
                                                                       (M)
                                                                                  (M)
                                                                                           (K)
            (M)
                     (K)
 (M)
                                                                                  .315
                                                                                          527.2 .763 .690
            .688
                  697.6 .817 .642
                                                                      1.537
1.891
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     ELEVATION
                                                                                                   HEAT FLUX
                                                                                                                   HEAT LOSS
                                                                                   TEMP
                                                                                         XE
                        XE
                                  HEAT FLUX
                                               HEAT LOSS
ELEVALION
             TEMP
                                                                       (M)
                                                                                                        W/M**2
                                                                                                                      W/M**2
                                  H/M**2
                                                W/M**2
                                                                                   (K)
 (16)
              (K)
                                                                                                        4.84E+04
                                                                                   427.9
                                                                                              .265
             428.0
                       .265
                                  4.46E+04
                                                                       .013
  .013
                                                                                                        4.82E+04
                                                                                              .277
                       .276
                                                                                   429.4
  .051
             429.1
                                  4.46E+04
                                                                       .051
                                                                       .063
                                                                                                       4.80E+04
                                                                                   426.8
                                                                                              .281
  .063
             426.4
                        .280
                                  4.44E+04
                                                                                              .289
                                                                       .089
                                                                                   430.0
                                                                                                        4.81E+04
  .089
             429.5
                        .287
                                  4.46E+04
                                                                                                       4.82E+04
                                                                       . 114
                                                                                   427.1
                                                                                              .297
             426.8
                                  4.45E+04
  114
                        .253
                        . 302
                                                                                   426.9
                                                                                              . 305
                                                                                                       4.80E+04
                                                                       . 140
  . 140
             426.4
                                  4-44E+04
                                                                                              .313
                                                                       . 165
                                                                                                        4.81E+04
                                                                                   426.6
                        . 309
  . 165
             426.2
                                  4.44E+04
                                                                       .317
                                                                                              . 361
                                                                                                        4.78E+04
 .317
                        .353
                                                                                   426.1
             425.8
                                  4.43E+04
                                                                       . 394
                                                                                   426.8
                                                                                              . 385
                                                                                                        4.81E+04
                        .375
 . 394
             426.5
                                  4.44 €+04
                                                                                                        4.81E+04
                        - 397
                                  4.45E+04
                                                                       .470
                                                                                   428.7
                                                                                              469
  .470
             428.7
                                                                                                        4.83E+04
                                  4.44E+04
                                                                       .546
                                                                                   429.1
                                                                                              .433
  .546
             429.2
                        .419
                                                                                              .457
                        .441
                                                                                   426.5
                                                                                                        4.82E+04
                                                                       .622
  .622
             426.4
                                  4.44E+04
                                                                       .698
                                                                                   430.6
                                                                                              .481
                                                                                                        4.84E+04
  .698
             431.2
                        .463
                                  4.46E+04
                                                                       .775
                                                                                   428.7
                                                                                              .505
                                                                                                        4.87E+04
                                  4.43E+04
  .775
             429.0
                        .485
                                                                                                        4.85E+04
                                  4.45E+04
                                                                       .851
                                                                                   431.6
                                                                                              .529
  .851
             432.4
                        .508
                                                                                                        4.91E+04
                        -530
                                                                                              .553
                                  4.48E+04
                                                                       .927
                                                                                   436.3
  .927
             439.3
                                                                                   429.6
                                                                                              .577
                                                                                                        4.82E+04
                                                                      1,003
                        -552
                                  4.45E+04
 1.003
             430.9
                                                                      1.079
                                                                                            .601
                                                                                   432.3
                                                                                                        4.80E+04
                                  4.60E+04
 1.079
             437.7
                        .574
                                                                      1.156
                                                                                   513.5
                                                                                              .628
                                                                                                        5.87E+04
                                  6.84E+04
 1.156
              755.4
                        .603
                                  5.39E+04
                                                                      1.206
                                                                                   580.4
                                                                                              .649
                                                                                                        7.20E+04
 1.206
             853.4
                        .623
                                                                                                        5.41E+04
 1.257
                        -640
                                  4.78E+04
                                                                      1.257
                                                                                   800.4
                                                                                              .670
             840.6
                                                                                                        5.24E+04
                                                                                   865.9
                        .656
                                  4.83E+04
                                                                      1.308
                                                                                              .688
 1.308
             881.0
                                                                                              .714
                                                                      1.384
                                                                                   912.1
                                                                                                        5.14E+04
                                  4.73E+04
 1.384
             919.5
                        .679
                                  4.71E+04
                                                                                   953.4
                                                                                              .739
                                                                                                        5.07E+04
                                                                      1.460
             958.3
                        . 703
 1,460
                        .718
                                                                                              . 755
                                                                                                        4.76E+04
                                                                      1.511
                                                                                   960.7
 1.511
             964.7
                                  4.38E+04
                        .733
                                                                                              .772
                                                                                                       5.05E+04
                                  4.69E+04
                                                                      1.562
                                                                                   958.3
 1.562
             960.9
                                                                                   979.0
                                                                                              . 788
                                                                                                       5.03E+04
                        .748
                                                                      1.613
 1.613
             982.0
                                  4.65E+04
                                                                                              .813
                                                                      1.689
                                                                                  1006.3
                                                                                                       5.02E+04
                        .771
 1.689
             1008.7
                                  4.65E+04
```

INEL POST-CHE EXPERIMENT NO. 50

4.64E+04

4.36E+04

4.58E+04

4.61E+04

4.55E+04

4.58E+04

LOOP PRESSURE (PE-3) 8.48 MPA 543.4 K FCV TEMPERATURE(TE-FCV-11) LHP INLET ENTHALPY 1.186E+06 J/KG TEST SECTION: PRESSURE .48 MPA SAT TEMP 423.43 K 18.50 KG/SEC-M**2 .261 MASS FLUX INLET QUALITY INLET ENTHALPY 1.186E+06 J/KG QUENCH FRONT: ELEVATION 1.221 M VELOCITY .0010 M/SEC -654 QUALITY NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.841 .621 681.0 .862 .691

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) M/Mes5 W/M##2 (K) .013 427.9 -265 4.82E+04 4.811+04 .277 429.3 .051 .281 4.79E+04 .063 426.7 .289 .089 429.9 4.79E+04 .114 427.0 .297 4.80E+04 - 140 4.781+04 .305 426.9 .313 .165 426.6 4.79E+04 -360 .317 426.1 4.77E+04 4.80E+04 . 384 . 394 426.8 4.80E+04 428.7 .408 .970 429.1 -546 .432 4.82E+04 .456 4.81E+04 4.83E+04 .622 426.5 .698 430.6 .480 4.87E+04 4.83E+04 4.87E+04 4.84E+04 4.80E+04 .775 .504 428.8 -528 .851 431.6 -552 .927 436.4 -576 1.003 429.6 1.079 .600 432.3 .627 1.156 514.8 5.90E+04 7.20E+04 -648 1,206 587.6 1.257 801.2 .669 5.45E+04 5.28E+04 1.308 866.1 .687 .713 1 384 912.3 5.16E+04 1.460 953.5 .739 5.12E+04 4.79E+04 1.511 960.8 . 755 5.11E+04 5.07E+04 5.05E+04 1.562 958.4 .771 -788 1.613 979.1 1.689 1006.3 .813 5.03E+04 4.71E+04 1.765 1038.8 .838 1.816 1042.3 . 855 .871 1.867 1016.2 5.05E+04 .887 5.03E+04 6.32E+04 1.918 1050.1 1.994 808.7 .916 2.070 890.1 .946 5.83E+04

LOOP PRESSURE(PE-3) 7.01 MPA 506.5 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.007E+06 J/KG TEST SECTION: PRESSURE .49 MPA SAT TEMP 424.22 K 45.06 KG/SEC-M**2 .240 MASS FLUX INLET QUALITY INLET ENTHALPY 1.144E+06 J/KG QUENCH FRONT: ELEVATION .164 M VELOCITY .0043 M/SEC QUALITY .269

POINT SERIAL NO. 1066.020 (TIME= 180.50 SEC)

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1191.2 W

1.232 1.068 684.5 .408 .324

NET LHP POWER TO FLUID

WALL TEMPERA	TURE MEASU	REMENT LOCA	ATION INFORMAT	ON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	M/W##5
0.7.7	100K 3	26.2	h terror	
.013	496.3	. 242	4.56£+04	
.051	487.1	. 247	5.06E+04	
.063	463.6	.248	4.58E+04	
.089	497.1	.252	6.661+04	
.116	530.7	.257	7.68E+04	
. 140	585.5	.263	9.02E+04	
. 165	654.4	.269	9.05E+04	
.317	858.8	. 299	5.49E+04	
. 394	906.3	. 309	5.05E+04	
.470	933.8	. 319	4.94E+04	
. 546	954.6	. 329	4.83E+04	
.622	968.5	. 339	4.77E+04	
-698	983.2	. 349	4.69E+04	
. 775	996.5	. 358	4.66E+04	
.851	1011.2	. 368	4.61E+04	
.927	1020.3	.377	4.54E+04	
1.003	1016.2	.386	4.37E+04	
1.06/	962.5	. 393	3.83E+04	1.79E+03
1.156	975.6	.402	3.75E+04	8.65E+02
1.232	913.8	.410	3.78E+04	
1.257	901.7	.413	4.09E+04	
1.321	921.9	. 420	4.11E+04	
1.384	990.5	, 427	4.251+04	
1.511	1003.3	441	4.03E+04	
1.562	941.3	. 446	4.17E+04	
1.613	967.5	.452	4.18E+04	
1.689	994.8	.461	4.07E+04	
1.765	1004.3	.469	3.92E+04	
1.816	989.8	474	3.62E+04	
1.867	915.3	.479	3.86E+04	
1.918	938.2	484	3.85E+04	

7.01 MPA

LOOP PRESSURE(PE-3)

INLET QUALITY .240 INLET ENTHALFY 1.144E+06 J/KG QUENCH FRONT: . 164 M ELEVATION

.0043 M/SEC VELOCITY QUALITY .269 NET LIP POWER TO FLUID 1191.2 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION IV XE XA ELEVATION DZQF (M) (K) (M)

	×			

424.22 K SAT TEMP 45.06 KG/SEC-M**2 MASS FLUX .240 INLET QUALITY INLET ENTHALPY 1.144E+06 J/KG QUENCH FRONT: .164 M ELEVATION .0043 M/SEC VELOCITY .269 QUALITY 1191.2 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) {K} (M) 1.537 1.372 769.8 .439 .326 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS TEMP XE HEAT FLUX ELEVATION {K} W/M**2 W/M**2 (M) .242 .013 496.3 4.56E+04 .247 .051 487.1 5.06E+04 .063 463.6 .248 4.58E+04 .252 6.66E+04 .089 497.1 .257 . 114 530.7 7.68E+04 .263 . 140 585.5 9.02E+04 .269 9.05E+04 . 165 654.4 .299 5.49E+04 . 317 858.8 . 309 . 394 5.05E+04 906.3 .470 4.94E+04 933.8 .319 4.83E+04 .546 .329 954.6 4.77E+04 .339 .622 968.5 . 349 4-69E+04 983.2 .698 .775 . 358 4.66E+04 996.5 .368 4.61E+04 .851 1011.2 .377 4.54E+04 1020.3 .927 1016.2 . 386 4.37E+04 1,003 . 393 1.79E+03 962.5 3.83E+04 1.067 1,156 8.65E+02 975.6 .402 3.75E+04 3.78E+04 .410 1.232 913.8 4.09E+04 1.257 901.7 .413 4.11E+04 921.9 .420 1.321 1.384 990.5 .427 4.25E+04 .441 1.511 1003.3 4.03E+04 .446 4.17E+04 1.562 941.3 .452 4.18E+04 967.5 1.613 .461 1.689 4.07E+04 994.8 1004.3 .469 3.92E+04 1.765 .474 3.62E+04 1.816 989.8 3.86E+04 .479 1.867 915.3

. 484

938.2

3.85E+04

INEL POST-CHE EXPERIMENT NO. 66

7.01 MPA

.49 MPA

506.5 K

1.007E+06 J/KG

POINT SERIAL NO. 2066.020 (TIME= 180.50 SEC)

LOOP PRESSURE(PE-3)

PRESSURE

TEST SECTION:

1.918

LHP INLET ENTHALPY

FCV TEMPERATURE (1E-FCV-1T)

(M) (K) W/M**2 W/M**6 .013	1.841	1.677	780.6 .474	. 349	
(M) (K) W/M**2 W/M**6 .013	WALL TEMPE	RATURE MEA	SUREMENT LOCAT	TION INFORMAT	ION
.013	ELEVATION	TEMP	XE		HEAT LOSS
.051	(M)	(K)		W/M**2	W/M**2
.063	.013	496.3	.242		
.089	.051	487.1	. 247	5.06E+04	
.114	.063	463.6			
.140	.089	457.1			
. 165	. 114	530.7	.257		
317 858.8 .299 5.49E+04 394 906.3 .309 5.05E+04 470 933.8 .319 4.94E+04 .546 954.6 .329 4.83E+04 .622 968.5 .339 4.77E+04 .698 983.2 .349 4.69E+04 .775 996.5 .358 4.66E+04 .851 1011.2 .368 4.61E+04 .927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.0067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	. 140	585.5	.263	9.02E+04	
.394 906.3 .309 5.05E+04 .470 933.8 .319 4.94E+04 .546 954.6 .329 4.83E+04 .622 968.5 .339 4.77E+04 .698 983.2 .349 4.66E+04 .775 996.5 .358 4.66E+04 .851 1011.2 .368 4.61E+04 .927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	. 165	654.4	.269		
.470 933.8 .319 4.94E+04 .546 954.6 .329 4.83E+04 .622 968.5 .339 4.77E+04 .698 983.2 .349 4.69E+04 .775 996.5 .358 4.66E+04 .851 1011.2 .368 4.61E+04 .927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	.317	858.8	.299		
.546 954.6 .329 4.83E+04 .622 968.5 .339 4.77E+04 .698 983.2 .349 9.69E+04 .775 996.5 .358 4.66E+04 .851 1011.2 .368 4.61E+04 .927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	. 394	906.3	. 309		
.622 968.5 .339 4.77E+04 .698 983.2 .349 9.60E+04 .775 996.5 .358 4.66E+04 .851 1011.2 .368 4.61E+04 .927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.1067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	.470	933.8	.319		
.698 983.2 .349	.546	954.6			
.775 996.5 .358 4.66E+04 .851 1011.2 .368 4.61E+04 .927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	.622	968.5	. 339	4.77E+04	
.851	.698	983.2	. 349		
.927 1020.3 .377 4.54E+04 1.003 1016.2 .386 4.37E+04 1.067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	.775	996.5	. 358		
1.003	.851	1011.2	. 368		
1.067 962.5 .393 3.83E+04 1.79E+0 1.156 975.6 .402 3.75E+04 8.65E+0 1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	.927	1020.3		4.54E+04	
1.156 975.6 .402 3.75E+04 8.65E+6 1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	1.003		. 386		
1.232 913.8 .410 3.78E+04 1.257 901.7 .413 4.09E+04 1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	1.067	962.5	. 393	3.83E+04	1.79E+03
1.257 901.7 ,413 4.09E+04 1.321 921.9 ,420 4.11E+04 1.384 990.5 ,427 4.25E+04 1.511 1003.3 ,441 4.03E+04 1.562 941.3 ,446 4.17E+04	1.156	975.6	.402		8.65E+02
1.321 921.9 .420 4.11E+04 1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	1.232	913.8	.410	3.78E+04	
1.384 990.5 .427 4.25E+04 1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	1.257	901.7	.413	4.09E+04	
1.511 1003.3 .441 4.03E+04 1.562 941.3 .446 4.17E+04	1.321	921.9	.420	4.11E+04	
1.562 941.3 .446 4.17E+04	1.384	990.5	.427	4.25E+04	
	1.511	1003.3	. 444 1	4.03E+04	
1.613 967.5 .452 4.18E+04	1.562	941.3	.446	4.17E+04	
	1.613	967.5	.452	4.18E+04	
1.689 994.8 .461 4.07E+04		994.8	.461	4.07E+04	
1.765 1004.3 .469 3.92E+04	1.765	1004.3	.469		
1.816 989.8 .474 3.62E+04	1.816	989.8			
1.867 915.3 .479 3.86E+04	1.867	915.3	.479		
1.918 938.2 .484 3.85E+04	1.918	938.2	.484	3.85E+04	

989.6

915.5

938.8

1.816

1.867

1,918

.471

476

.481

.487

3.75E+04

4.00E+04

3.96E+04

```
INFL POST-CHE EXPERIMENT NO. 66
          INEL POST-CHE EXPERIMENT NO. 66
                                                                 POINT SERIAL NO. 2066.030 (TIME= 199.50 SEC)
POINT SERIAL NO. 1066.030 [TIME= 199.50 SEC]
                                                                                                  6.99 MPA
                                                                 LOOP PRESSURE(PE-3)
                               6.99 MPA
LOOP PRESSURE(PE-3)
                           506.1 K
                                                                                            506.1 K
                                                                 FCV TEMPERATURE (TE-FCV-1T)
FCV TEMPERATURE (TE-FCV-1T)
                                                                                             1.005E+06 J/KG
                                                                 LHP INLET ENTHALPY
LHP INLET ENTHALPY
                           1.005E+06 J/KG
                                                                 TEST SECTION:
TEST SECTION:
                                                                                                   .49 MPA
                                                                      PRESSURE
    PRESSURE
                                .49 MPA
                                                                                              424.28 K
    SAT TEMP
                           424.28 K
                                                                      SAT TEMP
                            44.89 KG/SEC-M**2
.240
                                                                                             44.89 KG/SEC-M**2
.240
                                                                      MASS FLUX
    MASS FLUX
                                                                      INLET QUALITY
    INLET QUALITY
                                                                      INLET ENTHALPY
                                                                                            1.142E+06 J/KG
    INLET ENTHALPY
                        1.142E+06 J/KG
                                                                 QUENCH FRONT:
QUENCH FRONT:
                                                                                                  .247 M
                                                                      ELEVATION
    ELEVATION
                                247 M
                                                                                                .0044 M/SEC
                               .0044 M/SEC
                                                                      VELOCITY
    VELOCITY
                                                                                                  .277
                                                                      QUALITY
    QUALITY
                               .277
                                                                 NET LHP POWER TO FLUID
                                                                                              1192.8 W
NET LHP POWER TO FLUID
                              1192.8 W
                                                                 VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                            XE XA
                                                                 ELEVATION DZQF TV
ELEVATION DZQF TV
                        XE XA
                                                                             (M)
                                                                                      (K)
 (M)
           (M)
                   (K)
                                                                   (M)
                                                                  1.537 1.290
                                                                                     765.7 .440 .328
           .985 665.1 .408 .329
1.232
                                                                 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                                                HEAT LOSS
                                          HEAT LOSS
                                                                              TEMP XE
                                                                                                  HEAT FLUX
                                                                 ELEVATION
ELEVATION
           TEMP
                  XE HEAT FLUX
                                                                                                   M/MHH2
                                                                                                                 W/M##2
                                             W/M##2
                                W/M**2
                                                                  (M)
                                                                               (K)
 (M)
             (K)
                      .241
                                                                   .013
                                                                                        .241
 .013
                                                                               482.7
                                                                                                  4.25E+04
            482.7
                             4.25E+04
                      .245
                                                                                        .245
                                                                               465.4
                                                                                                  4.43E+04
            465.4
                              4.43E+04
                                                                   .051
 .051
                                                                                        .247
                                                                                                  4.17E+04
                                                                              451.3
             451.3
                      .247
                              4.17E+04
                                                                   .063
  .063
                                                                                        .250
                      .250
                                                                   .089
                                                                               469.3
                                                                                                  4.38E+04
                             4.38E+04
  .089
             469.3
                                                                                        .253
                      .253
                                                                   .114
            459.0
                              4.43E+04
                                                                               459.0
                                                                                                  4.43E+04
  .114
                      .256
                              4.81E+04
                                                                   . 140
                                                                                        .256
 . 140
                                                                               447.2
                                                                                                 4.81E+04
            447.2
                                                                                                 7.87E+04
                      .260
                              7.87E+04
7.55E+04
                                                                   . 165
                                                                                         .260
  165
             477.4
                                                                               477.4
                                                                                                 7.55E+04
 .317
                      .292
                                                                                         . 292
             791.0
                                                                   .317
                                                                               791.0
                                                                                        . 305
                                                                               878.8
                                                                                                  5.51E+04
            878.8
                       . 305
                              5.51E+04
                                                                   . 394
  . 394
                                                                                         .316
                      .316
            911.0
                             5.16E+04
                                                                   .470
                                                                               911.0
                                                                                                 5.16E+04
  .470
                                                                                        .327
                              4.99E+04
                                                                   .546
                                                                               934.6
                                                                                                  4.99E+04
  .546
             934.6
                      .327
                      .33/
                                                                                        . 337
                                                                                               4.89E+04
                                                                               950.2
  .622
             950.2
                             4.89E+04
                                                                   .622
                                                                                         . 347
                                                                                               4.80E+04
                              4.80E+04
                                                                   .698
                                                                               966.7
  .698
             966.7
                      .347
                              4.75E+04
                                                                   .775
                                                                                        .357
            980.8
                                                                                                  4.75E+04
 .775
                      .357
                                                                               980.8
                      -366
                                                                   .851
                                                                                         . 366
  .851
             996.5
                              4.70E+04
                                                                               996.5
                                                                                                  4.70E+04
                      .376
                                                                                         . 376
                                                                                                  4.64E+04
                               4.64E+04
                                                                   .927
                                                                              1006.9
  .927
            1006.9
                       .385
                                                                                                  4.49E+04
                                                                              1005.8
 1.003
            1005.8
                               4.49E+64
                                                                   1.003
                                                                                         .385
                                                                                         . 392
                                                                                                  4.01E+04
                                                                                                               1.97E+03
                       . 392
                                                                               957.9
 1.067
            957.9
                              4.018+04
                                             1.97E+03
                                                                   1.067
                                                                                                                1.31E+03
 1.156
             974.1
                       .402
                                3.95E+04
                                             1.31E+03
                                                                   1,156
                                                                               974.1
                                                                                         .402
                                                                                                  3.95E+04
                              3.95E+04
 1.232
             910.3
                       .410
                                                                   1 232
                                                                               910.3
                                                                                         .410
                                                                                                  3.95E+04
 1.257
             896.8
                              4.26E+04
                                                                   1.257
                                                                               896.8
                                                                                         .413
                                                                                                  4.26E+04
                       .413
                                                                                                  4.26E+04
 1.321
             916.8
                      .420
                               4.26E+04
                                                                  1.321
                                                                               916.8
                                                                                         .420
                                                                                         .427
                                                                                                  4.33E+04
 1.384
             983.0
                       .427
                               4.33E+04
                                                                  1.384
                                                                               983.0
                                                                                         .442
 1.511
             997.2
                       .442
                                4-13E+04
                                                                  1.511
                                                                               997.2
                                                                                                  4.13E+04
                                                                               935.4
                                                                                                  4.25E+04
 1.562
             935.4
                       .448
                               4.25E+04
                                                                  1.562
                                                                                         448
                                                                                         .453
 1.613
             961.5
                       .453
                                4.26E+04
                                                                   1.613
                                                                               961.5
                                                                                                  4.26E+04
             990.8
                                                                                                  4.17E+04
 1.689
                       .462
                                4.17E+04
                                                                   1.689
                                                                               990.8
                                                                                         .462
 1.765
                                4.06E+04
                                                                                         .471
```

1.765

1.816

1.867

1,918

1002.8

989.6

915.5

938.8

.476

.481

.487

4.06E+04

3.75E+04

4.00E+04

3.96E+04

INEL POST-CHE EXPERIMENT NO. 66 INEL POST-CHE EXPERIMENT NO. 66 POINT SERIAL NO. 1066.040 (TIME= 216.50 SEC) POINT SERIAL NO. 3066.030 (TIME= 199.50 SEC) LOOP PRESSURE (PE-3) 6.99 MPA 6.99 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (IE-FCV-1T) 505.8 K 506.1 K FCV TEMPERATURE (TE-FCV-11) 1.004E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY 1.005E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA PRESSURE .49 MPA PRESSURE SAT TEMP 424.25 K 424.28 K SAT TEMP 44.48 KG/SEC-M**2 MASS FLUX 44.09 KG/SEC-M**2 MASS FLUX .239 INLET QUALITY INLET QUALITY .240 INLET ENTHALPY 1.142E+06 J/KG INLET ENTHALPY 1.142E+06 J/KG QUENCH FRONT: QUENCH FRONT: .321 M ELEVATION .247 M ELEVATION .0044 M/SEC VELOCITY .0044 M/SEC VELOCITY .284 QUALITY .277 QUALITY NET LHP POWER TO FIUID 1192.5 W NET LHP POWER TO FLUID 1192.8 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA DZQF IV ELEVATION ELEVATION DZQF TV XE XA (M) (K) (M) (K) (M) (M) .911 647.9 .410 .335 1.232 1.841 1.595 773.1 .476 .353 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M**2 W/M##2 W/M##2 W/M**2 (M) (K) (K) (M) .013 476.5 .241 4.18E+04 .241 4.25E+04 .013 482.7 . 245 4.24E+04 4.43E+04 .051 456.2 .051 465.4 .245 .247 & TOF+04 .247 4.17E+04 .063 446.2 .063 451.3 .089 4.22E+04 461.0 .249 .250 4.38E+04 469.3 .089 .114 .252 450.1 4.20E+04 4.43E+04 . 114 459.0 .253 . 140 .255 438.4 4.12E+04 .255 . 140 447.2 4.81E+04 . 165 4.61E+04 . 165 7.87E+04 446.9 .258 477.4 .260 7.66E+04 .284 .292 7.55E+04 .317 512.3 791.0 .317 8.641+04 823.0 . 305 . 394 .300 878.8 5.51E+04 . 394 .315 5.49E+04 887.1 .470 5.16E+04 .470 911.0 .316 .326 5.15E+04 915.6 934.6 .327 4.99E+04 .546 .546 .337 4.99E+04 .622 933.5 4.89E+04 .622 950.2 . 337 4.85E+04 . 347 . 347 4.80E+04 .698 952.1 .698 966.7 4.80E+04 .357 .357 980.8 4.75E+04 .775 967.2 .775 .367 4.75E+04 983.9 .851 996.5 .366 4.70E+04 .851 .927 995.2 .376 4.70E+04 1006.9 .376 4.64E+04 .927 4.58E+04 1,003 996.3 .386 1005.8 . 385 4.49E+04 1.003 4.141+04 1.96E+03 .392 952.9 .393 957.9 4.01E+0h 1.97E+03 1.067 1.067 .403 4.10E+04 1.37E+03 1,156 970.9 1.156 974.1 .402 3.95 8+04 1.31E+03 1.232 4.03E+04 906.6 .412 1.232 910.3 .410 3.95E+04 .415 1.257 892.5 4.28E+04 1.257 896.8 .413 4.26E+04 4.30E+04 912.5 .422 .420 4.26E+04 1.321 1,321 916.8 4.35E+04 .430 983.0 .427 4.33E+04 1.384 977.2 1.384 4.15E+04 992.5 141414 1.511 997.2 .442 4.13E+04 1.511 931.4 4.25E+04 1.562 .450 1.562 935.4 . 448 4.25E+04 .456 4.25E+04 1.613 957.3 1.613 961.5 .453 4.26E+04

.462

.471

.476

.481

.487

990.8

989.6

915.5

938.8

1002.8

1.689

1.765

1.816

1.867

1.918

4.17E+04

4.06E+04

3.75E+04

4.00E+04

3.96E+04

4.19E+04

4.10E+04

3.80E+04

4.05E+04

4.00E+04

987.9

989.6

915.9

939.6

1001.7

1.689

1.765

1.816

1.867

1.918

.465

.473

.479

.484

.490

4.00E+04

1.918

939.6

.490

POINT SERIAL NO. 2066.040 (TIME= 216.50 SEC) POINT SERIAL NO. 3066.040 (TIME= 216.50 SEC) LOOP PRESSURE(PE-3) 6.99 MPA 100P PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-TT)

LHP INLET ENTHALPY

6.99 MPA
505.8 K
1,004E+06 J/KG 6.99 MPA 505.8 K FCV TEMPERATURE (IE - FCV - 11) LHP INLET ENTHALPY 1_004E+06 J/KG TEST SECTION: TEST SECTION: . 49 MPA PRESSURE PRESSURE .49 MPA 424.25 K 424.25 K SAT TEMP SAT TEMP 44.48 KG/SEC-M**2 .239 44.48 KG/SEC-M**2 .239 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY 1.142E+06 J/KG INLET ENTHALPY INLET ENTHALPY 1.142E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .321 M ELEVATION .321 M VELOCITY .0044 M/SEC VELOCITY .0044 M/SEC QUALITY . 284 QUALITY .284 NET LHP POWER TO FLUID 1192.5 W NET LHP POWER TO FLUID 1192.5 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.216 747.1 .442 .334 1.537 1.841 1.521 765.4 .479 .357 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVALION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS M/M**2 (M) (K) M/M##5 (M) (K) W/M##2 W/M##2 .241 .013 476.5 .241 4.18E+04 .013 476.5 4-18F+04 .051 456.2 .245 4.24E+04 .051 456.2 . 245 4.24E+04 .247 4.106+04 .063 446.2 .063 446.2 .247 4.10E+04 .249 .089 .089 461.0 4.22E+04 461.0 .249 4.22E+04 4.20E+04 4.12E+04 .114 .252 . 114 450.1 .252 450.1 4.20E+04 . 140 438.4 .255 .140 .255 438.4 4.12E+04 . 165 .258 4.61E+04 446.9 . 165 446.9 .258 4.61E+04 .317 612.3 .284 7.66E+04 .317 612.3 . 284 7.66E+04 .300 . 394 . 394 823.0 8.64E+04 823.0 8.64E+04 . 300 .470 887.1 .315 5.49E+04 .315 ,470 887.1 5.49E+04 5.15E+0h .546 915.6 . 326 .546 . 326 915.6 5.15E+04 .337 .622 933.5 4.99E+04 .622 933.5 . 337 4.99E+04 .698 952.1 . 347 4.85E+04 .698 . 347 952.1 4.85E+04 .775 967.2 . 357 4.80E+04 .775 . 357 967.2 4.808+04 4.75E+04 .851 983.9 . 367 .367 .851 983.9 4.75E+04 .376 .927 995.2 4.70E+04 .376 .927 995.2 4.70E+04 .386 1,003 996.3 4.58E+04 7.003 996.3 .386 4.58E+04 . 393 1.067 952.9 4.14E+04 1.96£+03 1.067 952.9 . 393 4.14E+04 1.96E+03 .403 1.156 970.9 4.10E+04 1.37E+03 1.156 970.9 .403 4.10E+04 1.37E+03 1.232 906.6 .412 4.03E+04 1.232 906.6 .412 4.03E+04 1.257 892.5 .415 4.28E+04 1,257 892.5 .415 4.28E+04 1.321 912.5 .422 4.30E+04 1.321 912.5 .422 4.30E+04 . 430 4.35E+04 1.384 977.2 1.384 977.2 .430 4.35E+04 1.511 992.5 444 4.15E+04 1.511 992.5 . 444 4.15E+04 4.25E+04 1.562 931.4 .450 931.4 1.562 .450 4.25E+04 1.613 957.3 . 456 4.25E+04 4.25E+04 1.613 957.3 . 456 1.689 987.9 .465 4.19E+04 1.689 987.9 .465 4.19E+04 4.10E+04 1.765 1001.7 .473 1.765 1001.7 .473 4.10E+04 1.816 989.5 .479 3.80E+04 1.816 989.6 .479 3.80E+04 4.05E+04 915.9 1.867 . 484 1.867 915.9 .484 4.05F+04

1.918

939.6

.490

4.00E+04

INEL POST-CHE EXPERIMENT NO. 66

.49 MPA 424.24 K 44.39 KG/SEC-M**2

505.7 K

SAT TEMP MASS FLUX

TEST SECTION:

PRESSURE

34	*	×	
36	L	٠	
4		×	
	Ξ	•	

INLET	QUALITY		.239		INLET	QUALITY		1.142E+06 J/KG	
INLET	ENTHALPY	1.1	142E+06 J/KG		INLET	ENTHALPY		1.142E+06 J/KG	
QUENCH FRON	1:				QUENCH FRO				
FLEVAT	TON		.381 M		ELEVA	TION		.381 M	
VELOCI	IY		.0042 M/SEC		VELOC			.0042 M/SEC	
QUALIT	Y		.293		QUAL.1	TY		.293	
NET LHP POW	ER TO FLUID		1191.8 W		NET LHP PO	WER TO FLU	10	1191.8 W	
VAPOR TEMPE	RATURE MEAS	SUREMENT 100	CATION INFORMA	TION	VAPOR TEMP			LOCATION INFORMA	TION
ELEVATION	DZQF	TV XE	XA		ELEVATION		TV	XE XA	
(M)	(M)	(K)			(M)	(M)	(K)		
1.232	.851 6	36.3 .414	4 .341	FON HEAT LOSS W/M**2	1.537	1.156	738.6	.447 .340	
WALL TEMPER	ATURE MEASU	REMENT LOCA	ATION INFORMAT	ION	WALL TEMPE	RATURE MEA	SUREMENT	LOCATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT FLUX	HEAL LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)		W/M**2	W/h *2
.013	473.1	.241	4.17E+04	2.06£+03 1.96£+03	.013	473.1			
.051	451.7	. 245	4.20E+04		.051	451.7			
.063	443.5	.247	4.12E+04		.063	443.5	.247		
.089	456.7	.250	4.20E+04		.089	456.7	.250		
. 114	445.6	.252	4.19E+04		.114	445.6	.252	4.19E+04	
. 140	435.9	.255	4.10E+04		. 140	435.9	.255	4.10E+04	
. 165	442.3	. 258	4.19E+04		. 165	442.3	.258		
.317	502.9	.280	6.13E+04		.317	502.9	.280		
. 394	753.7	.296	9.53E+04		. 394	753.7	.296		
.470	859.9	. 314	7.98E+04		.470	859.9	. 314		
.546	897.1	. 328	5.47E+04		.546	897.1			
.622	918.6	. 339	5.19E+04		.622	918.6	. 339		
.698	939.7	. 349	4.99E+04		.698	939.7	. 349		
.775	955.7	. 360	4.91E+04		.775	955.7	. 360		
.851	973.4	. 370	4.84E+04		.851	973.4	. 370		
.927	985.6	. 380	4.78E+04		.927	985.6	. 380		
1.003	988.1	. 390	4.69E+04		1.003	988.1	. 390		
1.067	948.0	. 397	4.23E+04	2.061+03	1.067	948.0	. 397		2.06E+03
1.156	967.1	.407	4.17E+04	1.96E+03	1.156	967.1	.407		1.96E+03
1,232	903.0	.416	4.15E+04		1.232	903.0	.416		
1.257	888.7	.419	4.40E+04		1.257	888.7	.419		
1,321	908.9	.427	4.39E+04		1.321	908.9	.427		
1.384	972.6	, 434	4.43E+04		1.384	972.6	. 434		
1.511	988.8	.449	4.22E+04		1.511	988.8	.449		
1,562	928.6	. 455	4.32E+04		1.562	928.6	.455	4.32E+04	
1,613	954.4	.461	4.32E+04		1.613	954.4	.461		
1.689	985.8	.470	4.27E+04		1.689	985.8	.470		
1.765	1000.8	.479	4.18E+04		1.765	1000.8	.479		
1.816	989.4	. 484	3.88E+04		1.816	989.4	. 484		
1.867	916.5	.490	4.10E+04		1.867	916.5	. 490		
1.918	940.5	.495	4.07E+04	2.06E+03 1.96E+03	1.918	940.5	.495		
1,710	340.3								

INEL POST-CHE EXPERIMENT NO. 66

7.00 MPA

.49 MPA

44.39 KG/SEC-M**2

505.7 K

1.003E+06 J/KG

424.24 K

POINT SERIAL NO. 1066.050 (TIME= 230.50 SEC)

LOOP PRESSURE (PE-3)

LHP INLET ENTHALPY

PRESSURE

SAT TEMP

MASS FLUX

TEST SECTION:

FCV TEMPERATURE (TE-FCV-11)

1.867

1.918

989.4

916.5

940.5

.484

.490

.495

3.88E+04

4.10E+04

4.07E+04

INEL POST-CHE EXPERIMENT NO. 66 INEL POST-CHE EXPERIMENT NO. 66 POINT STRIAL NO. 3066.050 (TIME= 230.50 SEC) POINT SERIAL NO. 1066.060 (TIME= 250.50 SEC) LOOP PRESSURF (PE-3) 7.00 MPA LOOP PRESSURE(PE-3) 7.02 MPA FCV TEMPERATURE (TE-FCV-TT) 505.7 K FCV TEMPERATURE (TE-FCV-1T) 505.7 K 1.003E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY 1.003E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA .49 MPA PRESSURE PRESSURE SAT TEMP 424.24 K SAT TEMP 424.23 K MASS FLUX 44.39 KG/SEC-M**2 44.07 KG/SEC-M**2 MASS FLUX INLET QUALITY .239 INLET QUALITY .240 INLET ENTHALPY 1.142E+06 J/KG INLET ENTHALPY 1.143E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .381 M ELEVATION .466 M VELOCITY .0042 M/SEC VELOCITY .0043 M/SEC QUALITY .293 QUALITY . 308 RET LHP POWER TO FLUID 1191.8 W NET LHP POWER TO FLUID 1192.8 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.841 1,460 765.5 .484 .361 1.232 .766 611.0 .423 .356 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX HEAT LOSS ELEVATION TEMP TEMP XE HEAT FLUX HEAT LOSS ELEVATION (14) (K) W/M##2 W/W##2 W/M##2 W/M**2 (M) (K) .013 473.1 .241 4.17E+04 .013 469.9 .241 4.32E+04 .051 4.20E+04 451.7 .245 .246 4.32E+04 .051 1147.8 .247 .063 443.5 4.12E+04 .247 4.28E+04 .063 440.8 .250 .089 .089 456.7 4.20E+04 452.5 .250 4.34E+04 . 114 .253 445.6 .252 4.19E+04 . 114 441.8 4.31E+04 . 140 .255 435.9 4.10E+04 . 140 434.0 .256 4.25E+04 . 165 4.30E+04 442.3 .258 4.19E+04 438.7 .259 . 165 .317 6.131+04 .280 444.0 502.9 .317 .278 4.51E+04 9.53E+04 7.52E+04 . 394 .296 .290 753.7 . 394 497.8 .314 . 309 .470 859.9 7.98E+04 .470 726.6 1 02E+05 897.1 .546 .328 5.47E+04 .546 847.3 .328 8.15E+04 .339 5.19E+04 .622 918.6 . 343 5.78E+04 . 622 892.1 5.37E+04 .698 939.7 . 349 4.99E+04 .698 919.6 . 354 .360 .775 .775 955.7 4.91E+04 938.4 . 365 5.20E+04 .851 .851 973.4 .370 4.84E+04 958.1 .376 5.08E+04 .380 .927 985.6 4.78E+04 .927 971.5 . 386 5.00E+04 .390 1.003 988.1 4.69E+04 1,003 975.9 .397 4.92E+04 .397 2.06E+03 1.067 948.0 4.23E+04 1.067 940.1 .405 4.48E+04 2.07E+03 1.156 967.1 .407 4.17E+04 1.96E+03 1.156 960.3 .416 4.40E+04 2.17E+03 1.232 903.0 .416 4.15E+04 1.232 897.0 . 425 4.37E+04 1.257 888.7 .419 4.40E+04 1.257 882.5 .428 4.64E+04 1.321 908.9 .427 4.39E+04 1.321 903.2 4.63E+04 , 430 1.384 9/2.6 . 434 4.43E+04 1.384 , 444 4.65E+04 966.0 1.511 988.8 . 449 4,22E+04 1.511 983.7 460 4.41E+04 1.562 928.6 . 455 4.32E+04 1.562 924.8 .466 4-52E+04 1.613 954.4 .461 4.32E+04 1.613 950.3 4.52E+04 .473 .470 1.689 985.8 4.27E+04 1.689 982.9 .482 4.46E+04 1.765 1000.8 .479 4.18E+04

1.765

1.816

1.867

1.918

999.4

989.1

917.4

941.6

.491

.497

.503

.509

4.39E+04

4.07E+04

4.30E+04

4.28E+04

INEL POST-CHE EXPERIMENT NO. 66

TEST SECTION:

QUENCH FRONT:

ELEVATION

ELEVATION

(M)

.013

.051

.063

.089

. 114

. 140

. 165

.317

. 394

.470

.546

.622

.698

.775

.851

.927

1.003

1.067

1, 156

1.232

1.257

1.321

1.384

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

917.4

941.6

.503

.509

4.30E+04

4.28E+04

(M) 1.537

PRESSURE

SAT TEMP

MASS FLUX

FLEVATION

VELOCITY

QUALITY

INEL POST-CHE EXPERIMENT NO. 66 POINT SERIAL NO. 2066.060 (TIME= 250.50 SEC) POINT SERIAL NO. 3066.060 (TIME= 250.50 SEC) 7.02 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE (PE-3) 7.02 MPA FCV TEMPERATURE (TE-FCV-1T) 505.7 K FCV TEMPERATURE (IE-FCV-11) 505.7 K 1.003E+06 J/KG LHP INLET ENTHALPY 1.003E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE .49 MPA 424.23 K 424.23 K SAT TEMP 44.07 KG/SEC-M**2 44.07 KG/SEC-M**2 MASS FLUX INLET QUALITY .240 INLET QUALITY . 240 INLET ENTHALPY 1.143E+06 J/KG INLET ENTHALPY 1.143E+06 J/KG QUENCH FRONT: .466 M .466 M ELEVATION VELOCITY .0043 M/SEC .0043 M/SEC .308 QUALITY . 308 NET LHP POWER TO FLUID 1192.8 W NET LHP POWER TO FLUID 1192.8 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF IV XE XA ELEVATION DZQF IV XE XA (M) (K) (M) (M) (K) 1,070 719.5 .458 .353 1.841 1.375 745.0 .497 .376 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX W/M##2 (K) W/M**2 W/M##2 (M) (K) W/M##2 .013 469.9 .241 469.9 . 241 4.32E+04 4.32E+04 4.32E+04 .246 .246 .051 447.8 4.32E+04 447.8 440.8 .247 4.28E+04 .063 440.8 .247 4.28E+04 452.5 .250 4.34E+04 .089 452.5 .250 4.34E+04 441.8 .253 4.31E+04 . 114 441.8 .253 4.31E+04 . 140 434.0 . 256 4.25E+04 .256 4.25E+04 434.0 4.30E+04 .165 438.7 .259 438.7 .259 4.30E+04 .317 444.0 .278 4.51E+04 444.0 .278 4.51E+04 497.8 .290 7.52E+04 .394 497.8 .290 7.52E+04 726.6 .309 1.02E+05 .470 726.6 . 309 1.02E+05 847.3 .328 8.15E+04 .546 847.3 .328 8.15E+04 . 343 892.1 . 343 5.78E+04 .622 892.1 5.78E+04 . 354 919.6 . 354 5.37E+04 .698 919.6 5.37E+04 938.4 . 365 5.20E+04 .775 938.4 . 365 5.20E+04 958.1 .376 5.08E+04 .851 958.1 . 376 5.08E+04 971.5 971.5 . 386 5.00E+04 .927 . 386 5.00E+64 975.9 .397 4.92E+04 1,003 975.9 . 297 4.92E+04 940.1 .405 4.48E+04 2.07E+03 1.067 940.1 .405 4.48E+04 2.07E+03 960.3 .416 4.40E+04 2.17E+03 1.156 960.3 .416 4.40E+04 2.17E+03 4.37E+04 897.0 .425 4.37E+04 1.232 897.0 .425 1.257 4.64E+04 882.5 .428 4.64E+04 882.5 .428 903.2 .436 4.63E+04 1.321 903.2 .436 4.63E+04 966.0 444 4.65E+04 1.384 966.0 141414 4.65E+04 4.41E+04 983.7 .460 1.511 983.7 .460 4.41E+04 .466 4.52E+04 924.8 1.562 924.8 .466 4.52E+04 4.52E+04 1.613 950.3 .473 950.3 .473 4.52E+04 982.9 .482 4.46E+04 982.9 4.46E+04 1.689 .482 999.4 .491 4.39F+04 1.765 999.4 .491 4.39E+04 4.07E+04 989.1 .497 1.816 989.1 .497 4.07E+04

1.867

1.918

917.4

941.6

.503

.509

4.30E+04

4.28E+04

.500

.506

.512

.518

4.67E+04

4.27E+04 4.50E+04

4.48E+04

4.602+04

980.3

998.1

988.8

918.4

942.6

1.689

1.765

1.816

1.867

1.918

980.3

998.1

988.8

918.4

942.6

.490

.500

.506

.512

.518

4.67E+04

4.60E+04

4.27E+04

4.48E+04

4.50E+04

POINT SERIAL NO. 1066.070 (TIME= 268.50 SEC) POINT SERIAL NO. 2066.070 (TIME= 268.50 SEC) FOY TEMPERATURE (TE-FCV-11)

THE INLET ENTHALPY
TEST SECTION.

7.01 MPA
505.6 K
1.002E+06 J/KG LOOP PRESSURE(PE-3) 7.01 MPA FCV TEMPERATURE(TE-FCV-1T) 505.6 K LHP INLET ENTHALPY 1.002E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA PRESSURE JIO MPA PRESSURE 424.21 K 43.86 KG/SEC-M**2 .240 1.143E+06 J/KG 424.21 K SAT TEMP SAT TEMP MASS FLUX 43.86 KG/SEC-M**2
INLET QUALITY .240
INLET ENTHALPY 1.143E+06 J/KG MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .545 M .0044 M/SEC ELEVATION ELEVATION .545 M .0044 M/SEC VELOCITY VELOCITY QUALITY . 321 QUALITY NET LHP POWER TO FLUID 1192.7 W NET LHP POWER TO FLUID 1192.7 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF IV XE XA (M) (M) (K) (M) (M) (K) 1.232 .687 1.537 .992 705.0 .464 .363 590.9 .428 .366 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX HEAT LOSS TEMP ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVALION W/M##2 (K) W/M##2 W/M**2 (M) (K) W/M##2 (M) .241 468.0 .241 4.48£+04 445.7 .246 4.48£+04 439.3 .248 4.45£+04 449.9 .251 4.50£+04 .013 468.0 4.48E+04 .013 4.48E+04 4.45E+04 .051 445.7 .051 .248 .063 439.3 .063 4.50E+04 .251 .089 449.9 .089 . 114 .114 . 254 4.47E+04 439.6 . 254 4.47E+04 439.6 .257 .257 . 140 433.2 4,42E+04 . 140 433.2 4.42E+04 .260 4,44E+04 . 165 437.0 . 165 437.0 .260 4.44E+04 .317 439.0 .279 4.53E+04 .279 4.53E+04 . 317 439.0 . 394 4.75E+04 450.3 .289 . 394 450.3 .289 4.751+04 .303 .303 8.37£+04 .321 9.45£+04 .340 8.28£+04 . 470 531.0 8.37E+04 .470 531.0 .321 .546 701.4 8.28E+04 9.45E+04 .546 701.4 8.28E+04 5.94E+04 . 340 .622 837.6 . 340 .622 837.6 .355 .698 896.0 5.94E+04 .698 896.0 . 355 5.57E+04 5.57E+04 .367 .775 .775 920.0 920.0 . 367 .378 .378 5.35E+04 .851 943.0 5.35E+04 .851 943.0 958.3 5.24E+04 .927 . 389 .927 958.3 .389 5.24E+04 5.15E+04 1.003 964.4 . 400 1.003 964.4 .400 5.15E+04 ,409 1.067 932.3 4.75E+04 1.75E+03 1.067 932.3 .409 4.75E+04 1.75E+03 1.156 953.2 .420 4.66E+04 1.156 .420 1.94E+03 953.2 4.66E+04 1.94E+03 1.232 4.60E+04 .430 890.7 . 430 1.232 890.7 4.60E+04 1.257 . 434 4.82E+04 1.257 876.3 876.3 . 434 4.82E+04 .442 897.8 1.321 4.80E+04 1.321 897.8 4.80E+04 .442 .450 1.384 959.9 .450 4.82E+04 1.384 959.9 4.82E+04 979.2 1.511 .467 4.59E+04 1.511 979.2 .467 4.59E+04 .473 4.75E+04 1.562 921.1 1,562 921.1 .473 4.75E+04 .480 1.613 946.6 4.73E+04 946.6 .480 1.613 4.73E+04

1.689

1.765

1.816

1.867

1.918

INEL POST-CHE EXPERIMENT NO. 66 INCL POST-CHE EXPERIMENT NO. 66 POINT SERIAL NO. 1066.081 (TIME= 286.50 SEC) POINT SERIAL NO. 3066.070 (TIME= 268.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 7.01 MPA LOOP PRESSURE(PE-3) 7.01 MPA FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-1T) 505.6 K 505.5 K 1.002E+06 J/KG LHP INLET ENTHALPY 1.002E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .49 MPA PRESSURE .49 MPA PRESSURE 424,21 K SAT TEMP 424.31 K SAT TEMP 43.69 KG/SEC-M**2 43.86 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .240 INLET QUALITY 240 1.142E+06 J/KG INLET ENTHALPY 1.143E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .545 M ELEVATION .623 M .0044 M/SEC VELOCITY .0043 M/SEC VELOCITY. .321 QUALITY .332 QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 1192.7 W 1191.3 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION TV DZQF XE ELEVATION DZQF XE (M) (M) (K) (M) (M) (K) 1.297 736.5 .509 .388 1.841 1.232 .609 570.0 .433 .377 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE. W/M##2 W/M##2 ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 (M) (K) 4.48E+04 .013 468.0 .241 .246 145.7 4.48E+04 .013 466.7 .241 4.64E+04 .051 4.45E+04 .051 444.2 .246 4.62E+04 439.3 .248 .063 .251 449.9 4.50E+04 .063 438.2 .248 4.61E+04 .089 4.47E+04 .089 .251 4.65E+04 . 114 448.0 439.6 .254 4.42E+04 .114 438.0 . 254 4.63E+04 . 140 433.2 .257 .257 4.54E+0h . 140 432.6 4.58E+04 . 165 437.0 .260 .317 .279 4.53E+04 . 165 435.9 .261 4.60E+04 439.0 .289 4.75F+04 .317 436.5 .280 4.65E+04 . 394 450.3 .470 8.37E+04 . 394 444.2 .290 4.74E+04 531.0 . 303 .300 .321 9.45E+04 .470 474.0 5.26E+04 .546 701.4 . 340 8.28E+04 .546 525.4 . 314 7.89E+04 .622 837.6 .332 9.12E+04 . 355 5.94E+04 .622 662.4 .698 896.0 .775 920.0 . 367 5.57E+04 .698 843.9 . 351 9.16E+04

.775

.851

.927

1.003

1.067

1.156

1.232

1.257

1.321

1.384

1.511

1.562

1.613

1.689

1.765

1.816

1.867

896.0

925.3

943.6

951.9

923.5

945.2

883.9

871.6

893.3

954.7

975.1

917.0

942.9

977.7

996.6

988.4

919.8

944.0

.368

. 380

. 392

,404

.413

.425

.435

.439

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456

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487

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943.0

958.3

964.4

932.3

953.2

890.7

876.3

897.8

959.9

979.2

921.1

946.6

980.3

998.1

988.8

918.4

942.6

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1.003

1.067

1.156

1,232

1.257

1.321

1.384

1.511

1.562

1.613

1.689

1.765

1.815

1.867

1.918

5.35E+04

5.24E+04

5.15E+04

4.75E+04

4.66E+04

4.60E+04

4.82E+04

4.80E+04

4.82E+04

4.59E+04

4.75E+04

4.73E+04

4.67E+04

4.60E+04

4.27E+04

4.50E+04

4.48E+04

1.75E+03

1.94E+03

6.20E+04

5.73E+04

5.54E+04

5.41E+04

5.04E+04

4.94E+04

4.80E+04

k. 98E+04

4.97E+04

5.00E+04

4.76E+04

4.99E+04

4.95E+04

4.87E+04

4.81E+04

4.44E+04

4.69E+04

4.69E+04

1.43E+03

1.63E+03

INEL POST-CHE EXPERIMENT NO. 66

1.845.1	BUST-CHE	EXPERIMENT	MICL	66
7 19 C. L.	I COULT - CITE	E W.L. E. LY L. LAFE LA. L.	7857.	63.63

POINT SERIA	L NO. 206	6.080 (TIME= 286.50 SEC)	POINT SERI	AL NO. 306	6.080 (TIME= 286.	50 SEC)	
TOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTION PRESSU SAT TE MASS F INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP FOW	RE(PE-3) CTURE(TE-FC NTHALPY WRE MP LUX QUALITY ENTHALPY II: ION TY Y EER TO FLUI	V-1T)	7.01 MPA 505.5 K 1.002E+06 J/KG .49 MPA 424.31 K 43.69 KG/SEC .240 1.142E+06 J/KG .623 M .0043 M/SEC .332 1191.3 W	-M**2	LOOP PRESSIFIC TEMPERS IN THE PRESSIFIC THE PRESSIFIC TO	URE(PE-3) ATURE(TE-FC ENTHALPY DN: URE EMP FLUX QUALITY ENTHALPY NT: ION ITY ER TO FLUI	V-11)	7.01 505.5 1.002E+06 .49 424.31 43.69 .240 1.1b2E+06 .623 .0043 .332 1191.3	MPA K J/KG MPA K KG/SEC-M J/KG M M/SEC	(**2
VAPOR TEMPE ELEVATION (M)	RATURE MEA DZQF (M)	TV (K)	LOCATION INFORMA	TION	VAPOR TEMPI ELEVATION (M)	ERATURE MEA DZQF (M)	SUREMENT TV (K)	LOCATION I	NFORMATI	ON
1.537	.913	687.4 .	477 .377		1.841	1.218	726.8	517 .397		
WALL TEMPER ELEVATION (M)	TEMP (K)	SUREMENT L XE	OCATION INFORMAT HEAT FLUX W/M**2	ION HEAT LOSS	WALL TEMPER	RATURE MEAS	UREMENT L	OCATION IN	ORMATiC LUX *2	HEAT LOSS W/M**2
.546 .622 .698 .775 .851	466.7 444.2 438.0 438.0 438.0 438.5 444.2 474.0 525.4 662.4 843.9 896.0 925.3 943.6 951.5 945.2 883.9 871.6 893.3 994.7 975.7 977.7 996.6 988.4 919.8 944.0	.241 .246 .248 .251 .254 .257 .261 .280 .300 .314 .332 .351 .368 .380 .392 .404 .413 .425 .435 .435 .435 .435 .435 .435 .456 .473 .487 .497 .508 .514 .521 .527	4.64E+04 4.62E+04 4.62E+04 4.65E+04 4.65E+04 4.58E+04 4.60E+04 4.65E+04 4.74E+04 5.26E+04 7.89E+04 9.12E+04 9.12E+04 5.73E+04 5.54E+04 5.54E+04 4.94E+04 4.96E+04 4.97E+04	1.43E+03 : 63E+03	.013 .051 .089 .114 .140 .165 .317 .394 .470 .566 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.511 1.562 1.613 1.689 1.765 1.816 1.867	466.7 444.2 438.0 438.0 432.6 435.9 436.5 444.2 474.0 525.4 662.4 843.9 896.0 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 943.6 951.9 925.3 945.2 883.9 871.6 893.3 954.7 975.1 917.7 918.6 925.6 925.6 925.7 925.7 926.6 927.7 927.7 928.8 929.8 92	241 246 248 251 254 257 261 280 300 314 332 351 368 389 404 413 425 435 447 456 473 487 497 508 514 521	4.64E 4.63E 4.63E 4.63E 4.65E 4.65E 4.65E 4.65E 4.65E 5.26E 7.12E 9.16E 6.20E 5.54E 5.94E 4.98E	+04 +04 +04 +04 +04 +04 +04 +04 +04 +04	1.43E+03 1.63E+03

1.918

921.1

945.4

.530

.537

INEL POST-CHE EXPERIMENT NO. 66 INEL POST-CHE EXPERIMENT NO. 66 POINT SERIAL NO. 2066.090 (TIME= 304.50 SEC) POINT SERIAL NO. 3066.090 (TIME= 304.50 SEC) 6.99 MPA LOOP PRESSURE (PE-3) 6.99 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 505.5 K 505.5 K LHP INLET ENTHALPY 1.002E+06 J/KG LHP INLET ENTHALPY 1.002E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA PRESSURE PRESSURE 424.23 K SAT TEMP 424.23 K SAT TEMP 43.92 KG/SEC-M**2 MASS FLUX 43.92 KG/SEC-M**2 MASS FLUX INLET QUALITY INLET QUALITY 240 .240 INLET ENTHALPY INLET ENTHALPY 1.143E+06 J/KG 1.143E+06 J/KG QUENCH FRONT: QUENCH FRONT: FLEVATION ELEVATION .703 M .703 M .0045 M/SEC VELOCITY .0045 M/SEC VELOCITY QUALITY QUALITY . 347 . 347 NET LHP POWER TO FLUID 1190.9 W NET LHP POWER TO FLUID 1190.9 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVA! ION DZQF TV XE XA (M) (M) (M) (K) (K) (M) 669.1 1.841 1.139 709.4 .526 .410 1.537 .834 .484 .389 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) (K) H/M**2 W/M##2 (M) (K) 4.84E+04 .013 465.9 .241 4.84E+04 .013 465.9 .241 .051 .246 .051 443.2 .246 4.83E+04 443.2 4.83E+04 .248 .063 437.5 4.82E+04 .063 437.5 .248 4.82E+04 446.6 .089 446.6 . 251 4.86E+04 .089 .251 4.86E+04 . 114 4.82F+04 . 114 437.2 .255 4.82E+04 437.2 .255 . 140 . 140 432.3 .258 4.81E+04 432.3 .258 4.81E+04 . 165 .262 4.81E+04 . 165 435.3 .262 4.81E+04 435 3 .317 435.0 .282 4.84E+04 .317 435.0 .282 4.84E+04 440.9 4.89E+04 . 394 440.9 .292 4.89E+04 . 394 .292 .470 463.5 . 303 5.09E+04 .470 463.5 . 303 5.09E+04 . 314 475.8 5.52E+04 5.52E+04 .546 .546 475.8 .314 .327 .327 .622 489.2 7.38E+04 .622 489.2 7.38E+04 .698 . 346 1.05E+05 .698 683.5 . 346 1.05E+05 683.5 .775 .367 9.16E+04 .775 831.6 . 367 831.6 9.16E+04 . 383 .851 901.8 6.42E+04 .851 901.8 . 383 6.42E+04 5.94E+04 . 396 .927 926.4 . 396 5.94E+04 .927 926.4 .408 937.8 5.73E+04 1.003 937.8 5.73E+04 1,003 .408 8.81E+02 5.38E+04 8.81E+02 913.8 .418 1.067 913.8 .418 5.38E+04 1.067 1.156 936.7 1.03E+03 .431 5.26E+04 1.03E+03 1.156 936.7 .431 5.26E+04 .442 5-03E+04 1.232 876.4 5.03E+04 1.232 876.4 .442 5.18E+04 1,257 867.3 . 445 5.18E+04 1.257 867.3 .445 5.16E+04 1.321 889.3 . 454 5.16E+04 1.321 889.3 . 454 5.19E+04 1.384 950.1 .463 5.19E+04 1.384 950.1 .463 971.4 .481 4.96E+04 1.511 971.4 .481 4.96E+04 1.511 5.16E+04 1.562 912.6 .488 5.16E+04 1.562 912.6 .488 1.613 939.1 .495 5.14E+04 1.613 939.1 .495 5.14E+04 .506 5.07E+04 5.07E+04 975.1 1.689 975.1 .506 1.689 1.765 995.1 .517 5.01E+04 1.765 995.1 .517 5.01E+04 .523 4.64E+04 1.816 988.0 .523 4.64E+04 1.816 988.0

4.88E+04

4.87E+04

921.1

945.4

1.867

1.918

.530

.537

4.88E+04

4.87E+04

THE POST OUR EVE	COLUCIAL NO. 44	THEY POST OUR THE	
THEL POST-CHE EXP		INEL POST-CHE EXI	
POINT SERIAL NO. 2066, 100		POINT SERIAL NO. 3066.100	(TIME= 320.50 SEC)
LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-TT) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	7.01 MPA 505.4 K 1.002E+06 J/KG .49 MPA 424.15 K 43.86 KG/SEC-M**2 .240 1.143E+06 J/KG .775 M .0045 M/SEC .364 1192.0 W	LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K)	7.01 MPA 505.4 K 1.002E+06 J/KG .49 MPA 424.15 K 43.86 KG/SEC-M**2 .240 1.143E+06 J/KG .775 M .0045 M/SEC .364 1192.0 W
VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (K)	LOCATION INFORMATION XE XA	VAPGR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K)	LOCATION INFORMATION XE XA
1.537 .762 652.6	.495 .403	1.841 1.067 703.9	.539 .421
WALL TEMPERATURE MEASUREMENT ELEVATION (K) (M) (K) .013	5.08E+04 5.07E+64 5.07E+64 5.06E+04 5.06E+04 5.06E+04 5.08E+04 5.12E+04 5.24E+04 5.46E+04 5.90E+04 9.04E+04 1.01E+05 9.06E+04 6.20E+04 5.78E+04 5.78E+04 5.55E+04 5.55E+04 5.47E+04 5.48E+04 5.22E+04 5.41E+04 5.40E+04	. 089	5.08E+04 5.07E+04 5.06E+04 5.06E+04 5.06E+04 5.08E+04 5.08E+04 5.12E+04 5.12E+04 5.24E+04 5.50E+04 1.01E+05 9.04E+04 1.01E+05 9.06E+04 6.58E+04 6.58E+04 5.78E+04 5.78E+04 5.28E+04 5.28E+04 5.25E+04 5.47E+04 5.47E+04 5.41E+04 5.40E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04 5.34E+04

INEL POST-CHE EXPERIMENT NO. 66 INEL POST-CHE EXPERIMENT NO. 66 POINT SERIAL NO. 2066.110 (TIME= 335.50 SEC) POINT SERIAL NO. 3066.11G (TIME= 335.50 SEC) LOOP PRESSURE(PE-3) 7.00 HPA LOOP PRESSURE(PE-3) 7.00 MPA FCV TEMPERATURE (TE-FCV-1T) 505.3 K FCV TEMPERATURE (IE-FCV-1T) 505.3 K 1.001E+06 J/KG LHP INLET ENTHALPY 1.001E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .49 MPA .49 MPA PRESSURE PRESSURE SAT TEMP 424.30 K SAT TEMP 424.30 K 43.52 KG/SEC-M**2 MASS FLUX 43.52 KG/SEC-M**2 MASS FLUX INLET QUALITY .240 INLET QUALITY .240 INLET ENTHALPY 1.143E+06 J/KG INLET ENTHALPY 1.143E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION. .841 M ELEVATION .841 M VELOCITY .0044 M/SEC VELOCITY .0044 M/SEC .379 QUALITY QUALITY .379 1192.2 W NET LHP POWER TO FLUID NET LHP POWER TO FLUID 1192.2 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV ELEVATION DZQF IV XE XA XE XA (M) (M) (K) (M) (M) (K) 1.000 1.537 .695 634.9 .504 .416 1.841 686.5 .551 .437 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX ELEVATION TEMP XE XE HEAT LOSS W/M##2 W/M##2 (M) (K) W/M##2 W/M##2 (K) (M) .013 .013 464.9 .242 5.32E+04 464.9 .242 5.32E+04 441.8 .247 5.30E+04 .051 .247 5.30E+04 441.8 .051 .249 5.29E+04 .063 .249 5.29E+04 436.7 .063 436.7 5.32E+04 .089 .253 .089 444.5 .253 5.32E+04 444.5 5.32E+04 . 11/4 . 114 435.7 .257 435.7 .257 5.32E+04 . 140 .260 5.28E+04 431.9 5.28E+04 .140 431.9 .260 .165 434.5 .264 5.29E+04 434.5 5.29E+04 .264 . 165 .286 5.29E+04 .317 5.29E+04 .317 433.4 433.4 .286 437.4 .298 5.35E+04 . 394 437.4 .298 5.35E+04 . 394 5.44E+04 .309 470 5.44E+04 .470 455.1 455.1 . 309 .321 5.56E+04 .546 457.4 5.56E+04 457.4 .321 . 546 .332 5.51E+04 .622 5.51E+04 .622 444.7 444.7 .332 .698 6.22E+04 . 345 482.4 . 345 .698 482.4 6.22E+04 .361 9.07E+04 .775 .775 536.2 536.2 .361 9.07E+04 747.2 .381 1.01E+05 .851 747.2 . 381 1.01E+05 .851 .927 872.2 .401 8.85E+04 .927 872.2 .401 8.85E+04 1.003 903.4 .418 6.80E+04 1.003 903.4 .418 6.80E+04 6.23E+04 1.067 892.3 .429 1.067 892.3 .429 6.23E+04 . 444 6.02E+04 1.156 919.2 1.156 919.2 . 4444 6.02E+04 .457 5.52E+04 1,232 1.232 862.4 862.4 .457 5.52E+04 5.83E+04 1.257 856.0 .461 1.257 856.0 .461 5.83E+04 5.73E+04 1.321 880.7 .471 1.321 880.7 .471 5.73E+04 .481 5.73E+04 1.384 940.9 .481 5.73E+04 1.384 940.9 5.47E+04 .501 1.511 964.3 5.47E+04 1.511 964.3 .501 1.562 905.7 .508 5.64E+04 1.562 905.7 .508 5.64E+04 1.613 932.6 .516 5.62E+04 1.613 932.6 .516 5.62E+04 .528 5.58E+04 970.5 1.689 970.5 .528 1.689 5.58E+04 992.6 .540 5.51E+04 1.765 992.6 .540 1.765 5.51E+04 .547 5.11E+04 1.816 987.3 1.816 987.3 .547 5.11E+04

922.8

947.2

1.867

1.918

.555

.562

5.42E+04

5.40E+04

.555

.562

922.8

947.2

1.867

1.918

5.42E+04

5.40E+04

1.816

1.867

1.918

991.5

987.0

923.2

947.6

.550

.558

. 566

.574

5.72E+04

5.32E+04

5.66E+04

5.65E+04

INFL POST-CHE EXPERIMENT NO. 66 INEL POST-CHE EXPERIMENT NO. 66 FOINT SERIAL NO. 2066.120 (TIME= 349.50 SEC) POINT SERIAL NO. 3066.120 (TIME= 349.50 SEC) LOOP PRESSURE (PE-3) 7.01 MPA 7.01 MPA LOOP PRESSURE (PE-3) 505.3 K 505.3 K FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.001E+06 J/KG LHP INLET ENTHALPY 1.001E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE .49 MFA .49 MPA PRESSURE SAT TEMP 424.37 K 424.37 K SAT TEMP 43.25 KG/SEC-M**2 43.25 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY . 240 INLET QUALITY .240 INLET ENTHALPY 1.143E+06 J/KG INLET ENTHALPY 1.143E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION 902 M .902 M ELEVATION VELOCITY .0043 M/SEC VELOCITY .0043 M/SEC QUALITY . 393 QUALITY . 393 NET LHP POWER TO FLUID 1191.8 W NET LHP POWER TO FLUID 1191.8 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVALION DZQF TV ELEVALION DZQF TV XE XA XE XA (M) (M) (K) (M) (M) (K) 1.537 .634 621.5 .513 .428 1.841 .939 684.3 .562 .446 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP HEAT LOSS XE HEAT FLUX ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 W/M##2 W/M##2 (M) (K) .013 464.4 . 242 5.521+01 464.4 .242 5.52E+04 .013 .248 .051 441.3 5.51E+F4 .051 441.3 . 248 5.51E+04 .250 .063 436.2 .250 5.50E+L4 .063 436.2 5.50E+04 .089 .254 443.5 . 254 5.53E+04 .089 443.5 5.531+04 . 114 435.2 .257 .257 5.48E+04 .114 435.2 5.48E+04 , 140 431.8 .261 5.47E+04 .261 . 140 431.8 5.47E+04 .165 .265 434.2 5.48E+04 . 165 434.2 .265 5.48E+04 .317 432.7 .289 5.51E+04 .317 432.7 .289 5.51E+04 .300 . 394 . 394 .300 436.0 5.55E+04 436.0 5.55E+04 .470 .312 452.0 .312 5.64E+04 .470 452.0 5.64E+04 .546 . 324 452.7 5.70E+04 .324 .546 452.7 5.70E+04 . 622 441.1 5.62E+04 .336 .622 441.1 . 336 5.62E+04 . 348 5.98E+0h .698 469.8 459.8 5.98E+04 .698 . 348 .775 .775 471.1 . 362 6.36E+04 471.1 . 362 6.36E+04 .851 .379 9.70E+04 567.8 .379 .851 567.8 9.70E+04 .927 751.1 . 400 1.04E+05 .927 751.1 ,400 1.04E+05 1,003 877.4 .420 8.81E+04 1.003 877.4 .420 8.81E+04 1.067 878.3 434 6.70E+04 1.067 878.3 . 434 6.70E+04 1,156 909.5 .450 6.33E+04 1.156 909.5 . 450 6.33E+04 1.232 855.6 .463 5.77E+04 1.232 855.6 .463 5.77E+04 1.257 849.4 .467 6.14E+04 1.257 849.4 .467 6.14E+04 1.321 876.1 . 478 5.99E+04 1.321 876.1 .478 5.99E+04 1.384 936.2 . 489 5.99E+04 1.384 936.2 .489 5.99E+04 1.511 960.8 .509 5.71E+04 1.511 960.8 .509 5.71E+04 1,562 903.1 .517 5.85E+04 .517 1.562 903.1 5.85E+04 1.613 930.3 .526 5.82E+04 1.613 930.3 .526 5.82E+04 1.689 968.5 .538 5.78E+04 1.689 968.5 .538 5.78E+04

1.765

1.816

1.867

1.918

991.5

987.0

923.2

947.6

.550

. 558

.566

.574

5.72E+04

5.32E+04

5.66E+04

5.65E+04

1.867

1.918

985.6

923.0

948.4

.599

.608

.617

INEL POST-CHE EXPERIMENT NO. 66 INEL POST-CHE EXPERIMENT NO. 66 POINT SERIAL NO. 3066.150 (TIME= 400.50 SEC) POINT SERIAL NO. 3066.140 (TIME= 385.50 SEC) LOOP PRESSURE(PE-3) 7.01 MPA LOOP PRESSURE (PE-3) 6.99 MPA 505.3 K FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-1T) 505.1 K LHP INLET ENTHALPY 1.000E+06 J/KG LHP INLET ENTHALPY 1.001E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA PRESSURE . 49 MPA PRESSURE 424.47 K 42.40 KG/SEC-M**2 424.35 K SAT TEMP SAT TEMP MASS FLUX . 42.49 KG/SEC-M**2 MASS FLUX .241 INLET QUALITY INLET QUALITY .241 INLET ENTHALPY 1.146E+06 J/KG INLET ENTHALPY 1.146E+06 J/KG QUENCH FRONT: QUENCH FRONT: LLEVATION ELEVATION 1.143 M 1.067 M .0054 M/SEC VELOCITY VELOCITY .0049 M/SEC QUALITY . 445 QUALITY . 474 NET LIP POWER TO FLUID 1191.9 W 1192.6 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVALION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.841 .775 640.7 .603 .495 1.841 .698 623.1 .624 .521 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS TEMP XE HEAT FLUX XE W/M##2 W/M##2 (K) (K) W/M##2 (M) W/M**2 (M) .013 .013 463.7 .243 6.216+04 463.8 .243 6.67E+04 .250 .051 440.4 6.19E+04 .051 440.4 .250 6.64E+04 435.8 .063 .252 6.18E+04 436.1 .253 6.64E+04 .063 .258 .089 442.0 .257 6.21E+04 .089 441.8 6.64E+04 . 114 435.0 .261 6.18E+04 .114 435.2 .262 6.63E+04 . 140 . 140 6.16E+04 432.1 .266 432.6 .267 6.61E+04 .270 6.17E+04 . 165 . 165 434.4 . 434.8 .272 6.62E+04 .297 431.9 . 317 6.17E+04 . 317 432.2 . 301 6.60E+04 . 394 434.2 .310 6.20E+04 . 394 434.2 . 315 6.63E+04 . 324 . 330 .470 446.2 6.27E+04 .470 444.9 6.69E+04 .546 .546 445.8 .337 6.28E+04 444.2 . 344 6.69E+04 . 351 .359 .622 436.7 6.23E+04 435.8 .622 6.65E+04 .373 .698 455.2 . 364 6.38E+04 .698 452.0 6.75E+04 .775 451.4 .378 6.41E+04 .775 447.8 . 388 6.76E+04 .851 461.7 . 392 6.57E+04 .851 6.87E+04 455.4 .403 ,927 491.3 7.22E+04 476.6 .407 .927 .418 7.14E+04 1.003 533.0 . 426 1.03E+05 1.003 449.6 .433 7.00E+04 .449 1.067 1.11E+05 737.4 . 445 1.067 559.3 1.07E+05 1.156 860.3 .471 9.07E+04 1.156 830.3 .478 1.22E+05 1.232 830.4 .488 6.90E+04 1.232 .500 813.2 7.95E+04 1.257 7.25E+04 824.4 .493 1.257 808.8 .506 8.04E+04 .520 1.321 861.1 .506 6.85E+04 853.2 1.321 7.41E+04 1.384 921.9 .518 6.83E+04 1.384 914.7 .533 7.37E+04 1.511 949.3 .542 6.50E+04 1.511 944.1 .559 6.93E+04 1.562 896.1 .552 6.65E+04 1.562 891.7 .570 7.14E+04 925.2 .561 6.56E+04 1.613 1.613 922.4 .580 7.03E+04 6.53E+04 1.689 963.8 .575 1.689 961.4 .595 6.98E+04 1.765 988.5 .590 6.48E+04 1.765 986.9 .610 6.93E+04

1.816

1.867

1.918

984.8

922.7

948.8

.620

.629

.639

6.43E+04

6.84E+04

6.80E+04

6.03E+04

6.41E+04

6.37E+04

1.78E+04

1.89E+04

1.87E+04

1.79E+04

1.867

1.918

922.1

948.6

.669

.679

7.38E+04

7.32E+04

```
POINT SERIAL NO. 3066.160 (TIME= 412.50 SEC)
                                                                          POINT SERIAL NO. 1068.010 (TIME= 360.50 SEC)
LOOP PRESSURE (PE-3)
                                    7.00 MPA
                                                                          LOOP PRESSURE(PE-3)
                                                                                                              6.99 MPA
FCV TEMPERATURE (TE-FCV-11)
                                   505.2 K
                                                                          FCV TEMPERATURE (TE-FCV-1T)
                                                                                                             492.8 K
LHP INLET ENTHALPY
                               1.001E+06 J/KG
                                                                          LHP INLET ENTHALPY
                                                                                                         9.434E+05 J/KG
TEST SECTION:
                                                                          TEST SECTION:
     PRESSURE
                                     . 49 MPA
                                                                               PRESSURE
                                                                                                                . 48 MPA
     SAT TEMP
                                  424.49 K
                                                                               SAT TEMP
                                                                                                            423.82 K
     MASS FLUX
                                   42.12 KG/SEC-M**2
                                                                               MASS FLUX
                                                                                                             17.94 KG/SEC-M**2
     INLET QUALITY
                                    .241
                                                                               INLET QUALITY
                                                                                                              .287
     INLET ENTHALPY
                               1.146E+06 J/KG
                                                                               INLET ENTHALPY
                                                                                                         1.242E+06 J/KG
QUENCH FRONT:
                                                                          QUENCH FRONT:
     ELEVATION
                                   1.215 M
                                                                               ELEVATION
                                                                                                               . 140 M
     VELOCITY
                                   .0081 M/SEC
                                                                               VELOCITY
                                                                                                              .0011 M/SEC
     QUALITY
                                    .505
                                                                               CUALITY
                                                                                                              . 307
NET LHP POWER TO FLUID
                                  1190.4 W
                                                                          NET LHP POWER TO FLUID
                                                                                                             1035.2 W
                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             DZQF
                     IV
                              XE
                                   AX
                                                                          ELEVATION
                                                                                       DZQF
                                                                                                IV
                                                                                                         XE XA
 (M)
             (M)
                      (K)
                                                                                       (M)
                                                                            (M)
                                                                                                 (K)
1.841
             .627
                            .663 .561
                     604.5
                                                                           1.232
                                                                                      1.092
                                                                                               771.3 .469 .348
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                    HEAT FLUX
                                                  HEAT LOSS
                                                                         ELEVATION
                                                                                        TEMP
                                                                                                  XE
                                                                                                              HEAT FLUX
                                                                                                                             HEAT LOSS
 (M)
               (K)
                                     W/M##2
                                                   W/M##2
                                                                           (M)
                                                                                         (K)
                                                                                                               W/M##2
                                                                                                                              W/M##2
  .013
              463.9
                         . 244
                                    7.02E+04
                                                                            .013
                                                                                        463.5
                                                                                                    .289
                                                                                                              1.91E+04
                         .251
  .051
              440.7
                                    6.97E+04
                                                                                                    .294
                                                                            .051
                                                                                        442.1
                                                                                                               1.94E+04
  .063
              436.2
                          .254
                                    6.98E+04
                                                                            .063
                                                                                        434.4
                                                                                                    .296
                                                                                                              1.89E+04
  .089
              441.9
                          .259
                                    6.98E+04
                                                                            .089
                                                                                        446.6
                                                                                                    .299
                                                                                                              1.97E+04
  . 114
              435.2
                          .264
                                    7.01£+04
                                                                                                    .302
                                                                            . 114
                                                                                        440.6
                                                                                                              2.10E+04
  . 140
              433.2
                          .269
                                    6.94E+04
                                                                            . 140
                                                                                        520.5
                                                                                                    . 307
                                                                                                              3.84E+04
  . 165
              435.2
                          .274
                                    6.96E+04
                                                                            . 165
                                                                                        610.9
                                                                                                    . 314
                                                                                                              3.38E+04
  .31/
              432.4
                          . 305
                                    6.97E+04
                                                                            .317
                                                                                        818.8
                                                                                                    . 342
                                                                                                              2.20E+04
  . 394
                         .320
              434.3
                                    6.97E+04
                                                                            . 394
                                                                                                    . 354
                                                                                        863.3
                                                                                                              2.235+04
                         . 335
  .470
              24.24.24 . 24
                                    7.02E+04
                                                                                                    .365
                                                                            .470
                                                                                        891.3
                                                                                                              2.21E+04
                          .350
  .546
              443.7
                                    7.02E+04
                                                                            .546
                                                                                        916.6
                                                                                                    .376
                                                                                                              2.19E+04
  .622
              435.9
                          . 366
                                    6.98E+04
                                                                            .622
                                                                                        937.5
                                                                                                    .387
                                                                                                              2.18E+04
              450.5
  .698
                          . 381
                                    7.09E+04
                                                                            .698
                                                                                        955.9
                                                                                                    . 399
                                                                                                              2.17E+04
  .775
                          .396
              446.4
                                    7.10E+04
                                                                            .775
                                                                                        973.3
                                                                                                    .410
                                                                                                              2.16E+04
  . 35 1
              452.9
                                    7.12E+04
                          .412
                                                                            .851
                                                                                        988.9
                                                                                                    .421
                                                                                                              2.14E+04
              471.3
  .927
                          .428
                                   7.31E+04
                                                                            .927
                                                                                       1001.2
                                                                                                    .432
                                                                                                              2.12E+04
 1.003
              445.6
                          4444
                                    7.20E+04
                                                                           1.003
                                                                                       1004,4
                                                                                                    . 442
                                                                                                              2.09E+04
 1.067
              525.2
                          .458
                                    8.34E+04
                                                                           1.067
                                                                                        949.3
                                                                                                    .451
                                                                                                              1.84E+04
                                                                                                                             1.45E+03
 1.156
              647.5
                          484
                                    1.22E+05
                                                                           1.156
                                                                                        977.8
                                                                                                    .462
                                                                                                              1.86E+04
                                                                                                                             9.67E+02
 1.232
              :75.4
                          .511
                                    1.30E+05
                                                                           1.232
                                                                                        948.9
                                                                                                    .4/1
                                                                                                              1.90E+04
 1.257
              787.6
                          .523
                                    1.94E+05
                                                                                        955.7
                                                                           1.257
                                                                                                    475
                                                                                                              2.06E+04
 1.321
              844.1
                          .549
                                    8.43E+04
                                                                           1.321
                                                                                        952.1
                                                                                                    . 484
                                                                                                              2.00E+04
 1.384
              906.7
                          .564
                                    8.23E+04
                                                                           1.384
                                                                                       1018.8
                                                                                                    .492
                                                                                                              2.01E+04
 1.511
                          .592
              939.0
                                    7.58E+04
                                                                           1.511
                                                                                       1032.9
                                                                                                    .509
                                                                                                               1.89E+04
 1.562
                          .604
              886.9
                                    7.82E+04
                                                                           1.562
                                                                                       1006.0
                                                                                                    .515
                                                                                                               1.96E+04
 1.613
              919.4
                          .615
                                    7.60E+04
                                                                           1.613
                                                                                       1020.1
                                                                                                    .522
                                                                                                               1.96E+04
 1.689
              959.0
                          .631
                                    7.51E+04
                                                                           1.689
                                                                                       1042.3
                                                                                                    .532
                                                                                                               1.94E+04
 1.765
              985.1
                          .648
                                    7.44E+04
                                                                           1.765
                                                                                       1057.1
                                                                                                    .542
                                                                                                              1.92E+04
 1.816
              983.7
                          .658
                                    6.93E+04
                                                                           1.816
                                                                                       1050.7
                                                                                                    . 51:3
```

1.867

1.918

1.994

1011.0

1021.8

87.3

.555

.561

.570

1.994

1021.8

87.3

.561

.570

INEL POST-CHE EXPERIMENT NO. 68

1.87E+04

1.79E+04

POINT SERIAL NO. 3068.010 (TIME= 360.50 SEC) POINT SERIAL NO. 2068.010 (TIME= 360.50 SEC) 6.99 MPA LOOP PRESSURE (PE-3) 6.99 MPA LOOP PRESSURE (PE-3) 492.8 K FCV TEMPERATURE(TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 492.8 K 9.434E+05 J/KG 9.434E+05 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE PRESSURE .48 MPA . 48 MPA SAT TEMP SAT TEMP 423.82 K 423.82 K 17.94 KG/SEC-M**2 MASS FLUX 17.94 KG/SEC-M**2 MASS FLUX .287 INLET QUALITY INLET QUALITY .287 INLET ENTHALPY 1,242E+06 J/KG 1.242E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION . 140 M ELEVATION . 140 M VELOCITY .0011 M/SEC VELOCITY .0011 M/SEC QUALITY . 307 . 307 QUALITY NET LHP POWER TO FLUID 1035.2 W NET LHP POWER TO FLUID 1035.2 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV ELEVATION DZQF TV XE XA XE XA (M) (M) (K) (M) (K) (M) 858.2 .506 .352 1.841 1.702 917.9 .548 .365 1.537 1.397 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 (M) (K) W/M##2 W/M##2 .013 463.5 .289 1.91E+04 .013 463.5 .289 1.918+04 .051 442.1 .294 1.94E+04 .051 442.1 .294 1.94E+04 .296 .296 .063 434.4 1.89E+04 .063 434.4 1.89E+04 .299 .299 .089 446.6 1.97E+04 .089 446.6 1.97E+04 .114 .302 2.10E+04 .302 . 114 440.6 440.6 2.10E+04 . 140 520.5 .307 . 140 .307 3.84E+04 520.5 3.84E+04 .314 . 314 3.38E+04 . 165 610.9 . 165 610.9 3.38E+04 .317 .342 2.20E+04 .317 818.8 . 342 818.8 2.20E+04 . 354 2.23E+04 2.23E+04 . 394 863.3 . 394 863.3 . 354 .470 891.3 . 365 2.21E+04 .470 . 365 2.21E+04 891.3 .546 2.19E+04 .376 916.6 .376 .546 916.6 2.19E+04 .387 .622 937.5 . 387 2.18E+04 .622 937.5 2.18E+04 2.17E+04 .399 .698 955.5 .399 .698 955.9 2.17E+04 973.3 .775 2.16E+04 .775 .410 973.3 .410 2.16E+04 .421 .851 988.9 2.14E+04 .851 988.9 .421 2.14E+04 .927 1001.2 .432 2.12E+04 .927 1001.2 .432 2.12E+04 2.09E+04 1,003 1004.4 .442 1.003 1004.4 .442 2.09E+04 1.067 949.3 .451 1.84E+04 1.45E+03 1.067 949.3 . 451 1.84E+04 1.45E+03 977.8 1.86E+04 9.67E+02 1.156 .462 1.156 977.8 1.86E+04 .462 9.67E+02 948.9 .471 1,232 948.9 .471 1.30E+04 1.232 1.90E+04 1.257 955.7 .475 2.06E+04 1,257 955.7 .475 2.06E+04 1.321 952.1 . 481: 2.00E+04 1,321 952.1 .484 2.00E+04 1.384 .492 2.01E+04 1018.8 1018.8 1.384 .492 2.01E+04 1.511 1032.9 .509 1.89E+04 1.511 1032.9 .509 1.89E+04 1.562 1006.0 .515 1.96E+04 1.562 1006.0 .515 1.96E+04 1.96E+04 1.613 1020.1 .522 1.613 .522 1020.1 1.96E+04 1.689 1042.3 .532 1.94E+04 1.689 1042.3 .532 1.94E+04 1.765 1057.1 .542 1.92E+04 1.765 1057.1 .542 1.92E+04 1.816 1050.7 .548 1.78E+04 .548 1.816 1050.7 1.78E+04 1011.0 .555 1.89E+04 1.867 1.867 1011.0 .555 1.89E+04

1.918

1.994

1021.8

87.3

.561

.570

1.87E+04

1.79E+04

INEL POST-CHE EXPERIMENT NO. 68

	EXPERIMENT NO. 08		PERIMENT NO. 00
POINT SERIAL NO. 1068.02	20 (TIME= 453.50 SEC)	POINT SERIAL NO. 2068.020	(TIME= 453.50 SEC)
LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-11 LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	.48 MPA 423.83 K 17.85 KG/SEC-M**2 .291 1.250E+06 J/KG .246 M .0011 M/SEC	LOOP PRESSURF (PE-3) FCV TEMPERATURE (TE-FCV-11) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	6.98 MPA 494.3 K 9.504E+05 J/KG .48 MPA 423.83 K 17.85 KG/SEC-M**2 .291 1.250E+06 J/KG .246 M .0011 M/SEC .328 1035.3 W
VAPOR TEMPERATURE MEASURE ELEVATION DZQF TV (M) (M) (K)	MENT LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMEN ELEVATION DZQF TV (M) (M) (K)	T LOCATION INFORMATION XE XA
1,232 .986 720.	.3 .469 .362	1.537 1.291 828.6	.507 .360
,013	### LOCATION INFORMATION XE	.013	3 1.91E+04 8 1.91E+04 9 1.90E+04 3 1.92E+04 6 1.93E+04 9 1.89E+04 3 2.53E+04 1 2.96E+04 5 2.22E+04 6 2.18E+04 7 2.16E+04 8 2.14E+04 9 2.14E+04 1 2.12E+04 1 2.19E+04 1 2.19E+04 1 2.19E+04 2 2.09E+04 3 2.06E+05 1 1.84E+04 1.49E+03 1.85E+04 1.32E+03 1.95E+04 2 0.04E+04 4 2.04E+04 6 1.95E+04 6 1.95E+04 6 1.95E+04

89.0

.572

1.82E+04

INEL POST-CHE EXPERIMENT NO. 68

INFL POST-CHE EXPERIMENT NO. 68 POINT SERIAL NO. 3068.020 (TIME= 453.50 SEC) POINT SERIAL NO. 1068.030 (TIME= 515.50 SEC) 6.98 MPA LOOP PRESSURE(PE-3) 6.98 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-17) 494.3 K FCV TEMPERATURE (TE-FCV-11) 495.1 K 9.540E+05 J/KG LHP INLET ENTHALPY 9.504E+05 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .48 MPA PRESSURE .48 MPA PRESSURE SAT TEMP 423.83 K SAT TEMP 423.82 K 17.68 KG/SEC-M**2 MASS FLUX 17.85 KG/SEC-M**2 MASS FLUX INLET QUALITY .291 INLET QUALITY .293 INLET ENTHALPY 1.255E+06 J/KG INLET ENTHALPY 1.250E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .315 M ELEVATION .246 M .0011 M/SEC VELOCITY .0011 M/SEC VELOCITY QUALITY .328 QUALITY .342 1035.2 W NET LHP POWER TO FLUID 1035.3 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV ELEVATION DZQF TV XE XA ELEVATION DZQF XE XA (M) (M) (K) (M) (M) (K) 1.232 .917 709.5 .481 .374 1.841 1.596 909.1 .550 .368 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS HEAT FLUX ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M##2 W/M##2 (M) (K) W/M**2 W/M##2 (M) (K) 458.8 1.96E+04 .013 459.5 .293 1.91E+04 .013 .298 .051 .300 1.95E+04 436.7 1.91E+04 .051 435.1 .302 1.95E+04 .063 430.1 .299 1.90E+04 .063 429.6 .089 436.9 . 305 1.95E+04 .089 438.6 . 303 1.92E+04 .308 . 114 428.3 1.95E+04 . 114 430.0 . 306 1.93E+04 .309 .312 425.9 1.95E+04 .140 426.2 1.89E+04 . 140 . 165 431.5 . 313 2.53E+04 . 165 428.8 .315 1.96E+04 . 341 3.36E+04 .317 787.3 2.96E+04 .317 643.2 . 343 .358 2.48E+04 .394 838.1 . 355 2.22E+04 . 394 810.7 .371 2.18E+04 2.34E+04 .470 868.7 . 366 .470 848.2 2.29E+04 .546 895.4 .377 2.16E+04 .546 877.4 . 383 .388 .622 917.3 2.14E+04 .622 900.2 . 394 2.28E+04 . 399 .698 2.24E+04 936.6 2.14E+04 .698 921.5 .406 .418 2.25E+04 .775 955.8 .410 2.12E+04 .775 941.4 959.8 .430 2.22E+04 .851 973.1 .421 2.11E+04 .851 .927 986.5 .432 2.09E+04 .927 974.4 . 441 2.20E+04 2.06E+04 981.5 2.17E+04 1,003 992.3 .443 1.003 .452 1.34E+03 1.067 942.0 .451 1.84E+04 1.49E+03 1.067 935.4 .461 1.95E+04 1.156 969.6 .462 1.85E+04 1.32E+03 1.156 962.6 .473 1.96E+04 1.04E+03 1.98E+04 1.232 938.6 .472 1.95E+04 1.232 931.2 .483 .475 1,257 943.8 2.06E+04 1.257 936.3 .487 2.10E+04 .484 2.04E+04 938.3 .496 2.08E+04 1.321 944.3 1.321 2.06E+04 1.384 1011.2 .493 2.03E+04 1.384 1005.5 .505 1.96E+04 1.511 1028.7 .510 1.91E+04 1.511 1025.8 .523 .529 1.95E+04 999.4 2.06E+04 1.562 1002.0 .516 1.562 1.613 1016.8 .523 1.96E+04 1.613 1013.9 .537 2.05E+04 .533 1040.0 1.94E+04 1038.3 .547 2.01E+04 1.689 1.689 1.92E+04 1.765 1056.7 .543 1.765 1056.2 .558 1.99E+04 .550 1.80E+04 1050.4 1.875+04 1.816 1050.7 1.816 . 564 1010.0 1.867 .556 1.94E+04 1.867 1009.4 .571 2.01E+04 1.918 1023.3 .563 1.91E+04 1.918 1023.5 .578 2.00E+04

1.994

89.6

.588

1.87E+04

89.6

.588

1.87E+04

```
POINT SERIAL NO. 3068.030 (TIME= 515.50 SEC)
POINT SERIAL NO. 2068.030 (TIME= 515.50 SEC)
100P PRESSURE(PE-3)
                               6.98 MPA
                                                                   LOOP PRESSURE(PE-3)
                                                                                                   6.98 MPA
                          495.1 K
                                                                                             495.1 K
FCV TEMPERATURE (TE-FCV-11)
                                                                   FCV TEMPERATURE(TE-FCV-1T)
LHP INLET ENTHALPY
                                                                  LHP INLET ENTHALPY
                           9.540E+05 J/KG
                                                                                              9.540E+05 J/KG
TEST SECTION:
                                                                   TEST SECTION:
    PRESSURE
                               .48 MPA
                                                                       PRESSURE
                                                                                                     . 48 MPA
                           423.82 K
                                                                                                423.82 K
    SAT TEMP
                                                                       SAT TEMP
                                                                       MASS FLUX
    MASS FLUX
                           17.68 KG/SEC-M**2
                                                                                                17.68 KG/SEC-M*#2
    INLET QUALITY
                              . 293
                                                                       INLET QUALITY
                                                                       INLET ENTHALPY
    INLET ENTHALPY
                            1.255E+06 J/KG
                                                                                               1.255E+06 J/KG
QUENCH FRONT:
                                                                  QUENCH FRONT:
    ELEVATION
                                .315 M
                                                                       ELEVATION
                                                                                                    .315 M
                               .0011 M/SEC
                                                                                                 .0011 M/SEC
    VELOCITY
                                                                       VELOCITY
    QUALITY
                                . 342
                                                                       QUALITY
                                                                                                    .342
NET THE POWER TO FLUID
                            1035.2 W
                                                                  NET LHP POWER TO FLUID
                                                                                                 1035.2 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                 TV
                         XE XA
                                                                  ELEVATION
                                                                               DZQF
                                                                                       IV
                                                                                              XE XA
 (M)
           (M)
                    (K)
                                                                               (M)
                                                                    (M)
                                                                                       (K)
                                                                             1.526 884.0 .564 .385
1.537
        1.221 813.5 .520 .374
                                                                   1.841
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                           HEAT LOSS
ELEVATION
            TEMP
                    XE
                                HEAT FLUX
                                                                               TEMP XE
                                                                  ELEVATION
                                                                                                   HEAT FLUX
                                                                                                                HEAT LOSS
                                                                                                    W/M**2
 (M)
             (K)
                                 W/M**2
                                              W/M##2
                                                                                                                  W/M##2
                                                                   (M)
                                                                                (K)
             458.8
                      .295
 .013
                             1.96E+04
                                                                    .013
                                                                                458.8
                                                                                                1.96E+04
                             1.95E+04
  051
             435.1
                      .300
                                                                    .051
                                                                                435.1
                                                                                          . 300
                                                                                               1,95E+04
  .063
             429.6
                                1.95E+04
                                                                                          .302
                       .302
                                                                    .063
                                                                                429.6
                                                                                                1.95E+04
                                1.95E+04
                                                                                          . 305
                                                                                                 1.95E+04
  .089
             436.9
                       . 305
                                                                    .089
                                                                                436.9
  . 114
             428.3
                                1.95E+04
                                                                                          . 308
                                                                                                  1.95E+04
                       .308
                                                                    . 114
                                                                                428.3
                      .312
  . 140
             425.9
                               1.95E+04
                                                                                425.9
                                                                                          .312
                                                                    . 140
                                                                                                   1.95E+04
  . 165
             428.8
                      . 315
                              1.96E+04
                                                                    . 165
                                                                               428.8
                                                                                          .315
                                                                                                1.96E+04
  . 317
             643.2
                       . 343
                             3.36E+04
                                                                    .317
                                                                                643.2
                                                                                          . 343
                                                                                                    3.36E+04
                       .358
  . 394
             810.7
                               2.48E+04
                                                                    . 394
                                                                                          .358
                                                                                810.7
                                                                                                2.48E+04
                              2.34E+04
  .470
                      .371
             848.2
                                                                    .470
                                                                                848.2
                                                                                          .371
                                                                                                2.34E+04
                       .383
  .546
             877.4
                                2.29E+04
                                                                    .546
                                                                                877.4
                                                                                          . 383
                                                                                                  2,29E+04
                                                                                          . 394
  .622
             900.2
                       . 394
                                2.28E+04
                                                                    .622
                                                                                900.2
                                                                                                   2.28E+04
  .698
             921.5
                       .406
                               2.24E+04
                                                                    .698
                                                                                921.5
                                                                                                2.24E+04
                                                                                          .406
                       .418
 .775
             941.4
                                2.25E+04
                                                                    .775
                                                                                941.4
                                                                                                    2.25E+04
                                                                                          .418
 .851
                       .430
                                                                                959.8
             959.8
                                2.22E+04
                                                                    .851
                                                                                                    2.22E+04
                                                                                          430
             974.4
  .927
                       . 441
                                2.20E+04
                                                                     .927
                                                                                974.4
                                                                                          . 444 1
                                                                                                    2.20E+04
             981.5
                       .452
                                2.17E+04
 1.003
                                                                   1.003
                                                                                981.5
                                                                                          .452
                                                                                                    2.17E+04
                       .461
                                           1.34E+03
 1.067
             935.4
                                1.95E+04
                                                                   1.067
                                                                                935.4
                                                                                          .461
                                                                                                    1.95E+04
                                                                                                                 1.34E+03
             962.6
                                1.96E+04
 1,156
                       .473
                                              1.04E+03
                                                                   1.156
                                                                                962.6
                                                                                          .473
                                                                                                    1.96E+04
                                                                                                                 1.04E+03
 1,232
             931.2
                       .483
                                1.98E+04
                                                                   1.232
                                                                                931.2
                                                                                          . 483
                                                                                                   1.98E+04
 1.257
             936.3
                                2.10E+04
                       .487
                                                                   1.257
                                                                                936.3
                                                                                          .487
                                                                                                    2.10E+04
 1.321
             938.3
                       .496
                                2.08E+04
                                                                   1.321
                                                                               938.3
                                                                                          .496
                                                                                                    2.08E+04
 1.384
            1005.5
                       .505
                                2.06E+04
                                                                   1.384
                                                                               1005.5
                                                                                          .505
                                                                                                    2.06E+04
                                                                               1025.8
 1.511
            1025.8
                       .523
                                1.96E+04
                                                                   1.511
                                                                                          ,523
                                                                                                    1.96E+04
 1.562
             999.4
                       .529
                                2.06E+04
                                                                  1.562
                                                                               999.4
                                                                                          .529
                                                                                                    2.06E+04
 1.613
            1013.9
                       .537
                                2.05E+04
                                                                   1.613
                                                                               1013.9
                                                                                          .537
                                                                                                    2.05E+04
 1.689
            1038.3
                       .547
                                2.01E+04
                                                                   1.689
                                                                               1038.3
                                                                                          .547
                                                                                                    2.01E+04
                       .558
 1.765
                               1.99E+04
            1056.2
                                                                   1.765
                                                                               1056.2
                                                                                          .558
                                                                                                    1.99E+04
                       . 564
 1.816
            1050.4
                                1.87E+04
                                                                   1.816
                                                                               1050.4
                                                                                          . 564
                                                                                                   1.87E+04
 1.867
            1009.4
                       .571
                                2.01E+04
                                                                   1.867
                                                                               1009.4
                                                                                          .571
                                                                                                   2.01E+04
 1.918
            1023.5
                       .578
                                2.00E+04
                                                                                          .578
                                                                   1.918
                                                                               1023.5
                                                                                               2.00E+04
```

1.994

89.6

.588

1.87E+04

INEL POST-CHE EXPERIMENT NO. 68 POINT SERIAL NO. 1068.040 (TIME= 583.50 SEC) LOCP PRESSURE(PE-3) 7.07 MPA FCV TEMPERATURE (TE-FCV-1T) 495.8 K

1035.2 W

LHP THEET ENTHALPY 9.570E+05 J/KG TEST SECTION: PRESSURE .49 MPA SAT TEMP 423.86 K 17.84 KG/SEC-M**2 MASS FLUX .295 INLET QUALITY INLET ENTHALPY 1.257E+06 J/KG QUENCH FRONT: .391 M ELEVATION .0011 M/SEC VELOCITY .357

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF TV XE XA ELEVATION (M) (M) (K)

1.232 .841 684.4 .492 .390

QUALITY

1.994

90.7

NET LHP POWER TO FLUID

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	M/W**5
.013	458.0	.296	2.05E+04	
.051	433.9	. 302	2.05E+04	
,063	428.4	. 303	2.04E+04	
.089	435.1	. 307	2.05E+04	
. 114	426.8	.310	2.05E+04	
. 140	425.1	. 314	2.04E+04	
. 165	427.3	.318	2.04E+04	
.317	429.1	. 339	2.21E+04	
. 394	587.5	. 358	4.85E+04	
.470	820.9	. 377	2.59E+04	
.546	857.4	. 390	2.42E+04	
.622	882.9	.402	2.38E+04	
698	906.1	.414	2.35E+04	
.775	926.4	.426	2.33E+04	
.851	945.7	.438	2.30E+04	
.927	962.2	.450	2.28E+04	
1.003	970.8	.462	2.28E+04	
1.067	928.3	.471	2.06E+04	1.21E+03
1.156	954.6	. 484	2.07E+04	1.04E+03
1.232	923.1	.494	2.09E+04	
1,257	928.5	.498	2.24E+04	
1.321	932.1	.508	2.21E+04	
1.384	999.6	.517	2.21E+04	
1.511	1022.5	. 536	2.08E+04	
1.562	995.9	.543	2.14E+04	
1.613	1010.8	.550	2.15E+04	
1.639	1036.2	.561	2.13E+04	
1.765	1055.7	.572	2.11E+04	
1.816	1050.3	.579	1.97E+04	
1.867	1009.1	.586	2.09E+04	
1.918	1624.1	.593	2.09E+04	

.604

1.98E+04

INEL POST-CHE EXPERIMENT NO. 68

1035.2 W

POINT S	SERIAL NO.	2068.040	(TIME= 584	.50 SEC)
	RESSURE(PE	-3) IE-FCV-1T)	7.07 495.8	

9.571E+05 J/KG LHP INLET ENTHALPY TEST SECTION: . 48 MPA PRESSURE 423.84 K SAT TEMP 17.83 KG/SEC-M**2 MASS FLUX .295 INLET QUALITY INLET ENTHALPY 1.257E+06 J/KG QUENCH FRONT: .392 M ELEVATION .0011 M/SEC VELOCITY QUALITY .357

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 1.145 816.6 .533 .382

NET LHP POWER TO FLUID

ELEVATION (K) (M) (K) 296 2.05E+04 .051 .051 .053 .0428.4 .063 .089 .051 .114 .042.7 .114 .140 .1458.9 .311 .2.04E+04 .140 .1458.9 .311 .2.04E+04 .140 .1458.9 .318 .2.04E+04 .140 .1458.9 .318 .2.04E+04 .140 .1458.9 .318 .2.04E+04 .140 .1458.9 .319 .17E+04 .3317 .428.9 .339 .17E+04 .3470 .820.4 .377 .2.60E+04 .470 .820.4 .377 .2.60E+04 .331+04 .426.2 .331+04 .341+04 .341+04 .341+04 .341+04 .341+04 .341+04 .341+04 .3				ATION INFORMAT	ION
.013	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
.051	(M)	(K)		W/M**2	W/M**2
.051	013	458 n	206	2 055400	
.063					
.089					
.114					
. 140					
. 165					
.317					
. 394 674.0 .357 4.84E+04 .470 820.4 .377 2.60E+04 .546 857.0 .390 2.43E+04 .622 882.6 .402 2.38E+04 .698 905.8 .414 2.36E+04 .775 926.2 .426 2.33E+04 .851 945.5 .438 2.31E+04 .927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.563 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.866 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04					
.470 820.4 .377 2.60E+04 .546 857.0 .390 2.43E+04 .622 882.6 .402 2.38E+04 .698 905.8 .414 2.36E+04 .775 926.2 .426 2.33E+04 .851 945.5 .438 2.31E+04 .927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.232 922.9 .496 2.26E+04 1.321 932.0 .508 2.26E+04 1.321 932.0 .508 2.26E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04					
.546					
.622 882.6 .402 2.38E+04 .698 905.8 .414 2.36E+04 .775 926.2 .426 2.33E+04 .851 945.5 .438 2.31E+04 .927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.232 922.9 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.551 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.562 995.9 .543 2.16E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.816 1050.3 .580 1.99E+04 1.816 1050.3 .587 2.11E+04					
.698 905.8 .414 2.36E+04 .775 926.2 .426 2.33E+04 .851 945.5 .438 2.31E+04 .927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.1067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1099.1 .587 2.11E+04					
.775 926.2 .426 2.33E+04 .851 945.5 .438 2.31E+04 .927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04					
.851 945.5 .438 2.31E+04 .927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.562 995.9 .543 2.16E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.816 1050.3 .580 1.99E+04 1.816 1050.3 .580 1.99E+04 1.918 1024.1 .594 2.11E+04					
.927 962.0 .450 2.29E+04 1.003 970.6 .462 2.29E+04 1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.321 932.0 .508 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.562 995.9 .543 2.16E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1099.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					
1.003 970.6 .462 2.29E+04 1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.618 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1099.1 .587 2.11E+04					
1.067 928.2 .471 2.07E+04 1.23E+03 1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04					
1.156 954.5 .484 2.08E+04 1.03E+03 1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					
1.232 922.9 .495 2.10E+04 1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1099.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					
1.257 928.4 .498 2.26E+04 1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					1.03E+03
1.321 932.0 .508 2.22E+04 1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					
1.384 999.5 .517 2.22E+04 1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					
1.511 1022.4 .536 2.09E+04 1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04					
1.562 995.9 .543 2.16E+04 1.613 1010.7 .551 2.17E+04 1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04			.517		
1.613		1022.4	.536	2.09E+04	
1.689 1036.2 .562 2.15E+04 1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04		995.9			
1.765 1055.7 .573 2.13E+04 1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04	1.613	1010.7	.551	2.17E+04	
1.816 1050.3 .580 1.99E+04 1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04	1.689	1036.2	.562	2.15E+04	
1.867 1009.1 .587 2.11E+04 1.918 1024.1 .594 2.11E+04	1.765	1055.7	.573	2.13E+04	
1.918 1024.1 .594 2.11E+04	1.816	1050.3	.580	1.99E+04	
	1.867	1009.1	.587	2.11E+04	
1.994 90.7 .605 1.99E+04	1.918	1024.1	.594	2.11E+04	
	1.994	90.7	.605	1.99E+04	

90.7

.604

1.98E+04

```
POINT SERIAL NO. 3068.040 (TIME= 583.50 SEC)
                                                                       POINT SERIAL NO. 1068.050 (TIME= 657.50 SEC)
100P PRESSURE(PE-3)
                                  7.07 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           7.01 MPA
FCV TEMPERATURE(TE-FCV-1T)
                                 495.8 K
                                                                        FCV TEMPERATURE(TE-FCV-1T)
                                                                                                         496.2 K
LHP INLET ENTHALPY
                              9.570F+05 J/KG
                                                                       LHP INLET ENTHALPY
                                                                                                      9.592E+05 J/KG
TEST SECTION:
                                                                       TEST SECTION:
    PRESSURE
                                   .49 MPA
                                                                            PRESSURE
                                                                                                            .49 MPA
     SAT TEMP
                                423.86 K
                                                                            SAT TEMP
                                                                                                        423.93 K
     MASS FLUX
                                 17.84 KG/SEC-M**2
                                                                            MASS FLUX
                                                                                                         17.74 KG/SEC-M**2
     INLET QUALITY
                                   .295
                                                                            INLET QUALITY
                                                                                                           .296
     INLET ENTHALPY
                              1.257E+06 J/KG
                                                                            INLET ENTHALPY
                                                                                                      1.260E+06 J/KG
QUENCH FRONT:
                                                                       QUENCH FRONT:
    ELEVATION
                                   .391 M
                                                                                                           .473 M
                                                                            ELEVATION
     VELOCITY
                                  .0011 M/SEC
                                                                                                          .0011 M/SEC
                                                                            VELOCITY
    QUALITY
                                  . 357
                                                                            QUALITY
                                                                                                           .373
NET LHP POWER TO FLUID
                                1035.2 W
                                                                       NET LHP POWER TO FLUID
                                                                                                        1035.2 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                     TV
                             XE XA
                                                                        ELEVATION
                                                                                    DZQF
                                                                                            IV
                                                                                                      XE XA
 (M)
             (M)
                     (K)
                                                                                              (K)
                                                                         (M)
                                                                                    (M)
1.841
           1.451
                    881.5 .579 .396
                                                                        1.232
                                                                                     . 759
                                                                                            662.1 .502 .405
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                         XE
                                  HEAT FLUX
                                                 HEAT LOSS
                                                                       ELEVATION
                                                                                     TEMP
                                                                                                 XE
                                                                                                           HEAT FLUX
                                                                                                                          HEAT LOSS
 (14)
              (K)
                                   W/M##2
                                                  W/M##2
                                                                                                            W/M##2
                                                                                                                           W/M*#2
                                                                         (M)
                                                                                      (K)
                        .296
  013
              458.0
                                   2.05E+04
                                                                         .013
                                                                                      457.6
                                                                                                 .298
                                                                                                           2.26E+04
  .051
              433.9
                         . 302
                                   2.05E+04
                                                                         .051
                                                                                                 . 304
                                                                                                           2.25E+04
                                                                                      433.1
  .065
              428.4
                         . 303
                                  2.04E+04
                                                                          .063
                                                                                                 . 306
                                                                                                           2.25E+04
                                                                                      428.0
                         .307
  .089
              435.1
                                   2.05E+04
                                                                         .089
                                                                                      434.1
                                                                                                 .310
                                                                                                           2.25E+04
 . 114
              426.8
                         .310
                                  2.05E+04
                                                                         .114
                                                                                                           2.25E+04
                                                                                      426.3
                                                                                                 . 314
                         .314
 , 140
              425.1
                                   2.04E+04
                                                                         . 140
                                                                                      425.3
                                                                                                 .317
                                                                                                           2.24E+04
 . 165
              427.3
                         . 318
                                 2.04E+04
                                                                         . 165
                                                                                      427.1
                                                                                                 .321
                                                                                                           2.25E+04
 .317
              429.1
                         .339
                                  2.21E+04
                                                                         .317
                                                                                      426.1
                                                                                                 .345
                                                                                                           2.26E+04
  . 394
                        . 358
             687.5
                                  4.85E+04
                                                                         . 394
                                                                                      431.7
                                                                                                 . 357
                                                                                                           2.34E+04
                         .377
  410
              820.9
                                  2.59E+04
                                                                         .470
                                                                                                           3.53E+04
                                                                                      557.6
                                                                                                 .372
  .546
                                  2.42E+04
              857.4
                         . 390
                                                                         .546
                                                                                      822.0
                                                                                                 .389
                                                                                                           2.93E+04
  .622
              882.9
                         .402
                                   2.38E+04
                                                                         .622
                                                                                      858.0
                                                                                                 .403
                                                                                                           2.66E+04
 ,698
              906.1
                                  2.35E+04
                         .414
                                                                         .698
                                                                                      886.2
                                                                                                 .417
                                                                                                           2.56E+04
 .775
                         .426
              926.4
                                   2.33E+04
                                                                         .775
                                                                                      908.9
                                                                                                 . 430
                                                                                                           2.53E+04
                                                                         .851
  .851
              945.7
                         .438
                                   2.30E+04
                                                                                      929.6
                                                                                                 . 443
                                                                                                           2.51E+04
  .921
              962.2
                         .450
                                   2.28E+04
                                                                          .927
                                                                                      946.8
                                                                                                 .456
                                                                                                           2.51E+04
 1.003
              970.8
                         .462
                                   2.28E+04
                                                                        1.003
                                                                                      956.7
                                                                                                 .469
                                                                                                           2.48E+04
 1.067
              928.3
                         .471
                                   2.06E+04
                                                 1.21E+03
                                                                        1.067
                                                                                      918.8
                                                                                                 .479
                                                                                                           2.27E+04
                                                                                                                          1.26E+03
                         .484
 1.156
              954.6
                                   2.07E+04
                                                 1.04E+03
                                                                                      944.9
                                                                        1.156
                                                                                                 .493
                                                                                                           2.29E+04
                                                                                                                          1.04E+03
 1.232
              923.1
                         .494
                                   2.09E+04
                                                                        1,232
                                                                                     913.9
                                                                                                 .505
                                                                                                           2.29E+04
 1.257
              928.5
                         .498
                                   2.241+04
                                                                        1.257
                                                                                      919.6
                                                                                                 .509
                                                                                                           2.43E+04
             932.1
 1.321
                         .508
                                   2.21E+04
                                                                        1.321
                                                                                      925.2
                                                                                                 .519
                                                                                                           2.40E+04
 1.384
             999.6
                                   2.21E+04
                         .517
                                                                         1.384
                                                                                      992.6
                                                                                                 .530
                                                                                                           2.40E+04
 1.511
             1022.5
                         .536
                                   2.08E+04
                                                                         1.511
                                                                                     1017.6
                                                                                                 .550
                                                                                                           2.29E+04
 1.562
             995.9
                         .543
                                   2.14E+04
                                                                        1.562
                                                                                     991.8
                                                                                                 .558
                                                                                                           2.38E+04
             1070.8
 1.613
                         .550
                                   2.15E+04
                                                                         1.613
                                                                                     1006.5
                                                                                                 .566
                                                                                                           2.36E+04
 1.689
             1035.2
                                  2.13E+04
                         .561
                                                                        1.689
                                                                                     1033.5
                                                                                                 .578
                                                                                                           2.34E+04
                         .572
 1.765
             1055.7
                                  2.11E+04
                                                                        1.765
                                                                                     1054.6
                                                                                                 .590
                                                                                                           2.31E+04
 1.816
             1050.3
                         .579
                                   1.97E+04
                                                                        1.816
                                                                                     1049.9
                                                                                                 .598
                                                                                                           2.16E+04
 1.867
             1009.1
                         . 586
                                   2.09E+04
                                                                        1.867
                                                                                     1008.6
                                                                                                 .606
                                                                                                           2.33E+04
 1.918
             1024.1
                         .593
                                  2.09E+04
                                                                                                           2.31E+04
                                                                        1.918
                                                                                     1023.7
                                                                                                 .614
```

1.994

90.9

.626

2.18E+04

INEL POST-CHE EXPERIMENT NO. 68 POINT SERIAL NO. 2068.050 (TIME= 655.50 SEC) LOOP PRESSURE(PE-3) 7.01 MPA

FCV TEMPERATURE (TE-FCV-1T) 496.2 K LHP INLET ENTHALPY 9.591E+05 J/KG TES! SECTION: PRESSURE .49 MPA SAT TEMP 423.95 K 17.74 KG/SEC-M**2 MASS FLUX INLET QUALITY .296 INLE; ENTHALPY 1.260E+06 J/KG QUENCH FRONT: .471 M ELEVATION .0011 M/SEC VILOCITY QUALITY .372 NET LHP POWER TO FLUID 1035.2 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 1.066 791.2 .546 .399

WALL TEMPER	ATURE MEASU	REMENT LOC	CATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(H)	(K)		W/M**2	W/M**2
.013	457.6	. 298	2.25 €+04	
.051	433.1	. 304	2.24E+04	
.063	428.0	. 306	2.25E+04	
.089	434.1	. 310	2.25E+04	
.114	426.3	.313	2.25 € + 04	
. 140	425.3	.317	2.24E+04	
. 165	427.2	. 321	2.25E+04	
.317	426.2	. 345	2.26E+04	
. 394	432.0	. 357	2.35E+04	
.470	583.2	.372	3.53E+04	
.546	823.3	. 389	2.91E+04	
.622	858.8	.403	2.66E+04	
.698	886.7	.416	2.55E+04	
.775	909.4	. 430	2.52E+04	
.851	930.0	. 443	2.50E+04	
.927	947.2	.456	2.50E+04	
1.003	957.1	.469	2.48E+04	
1.067	919.0	.479	2.27E+04	1.22E+03
1.156	945.2	. 493	2.28E+04	9.95E+02
1.232	914.1	.504	2.27E+04	
1.257	919.9	.508	2.42E+04	
1.321	925.4	.519	2.39E+04	
1.384	992.7	.529	2.39E+04	
1.511	1017.7	.549	2.28E+04	
1.562	991.9	.557	2.38E+04	
1.613	1006.7	.566	2.37E+04	
1.689	1033.6	.578	2.33E+04	
1.765	1054.6	.590	2.31E+04	
1.816	1049.9	.598	2.17E+04	
1.867	1008.7	. 605	2.33E+04	
1.918	1023.7	.613	2.315+04	
1.994	90.9	.625	2.18E+04	

101H1 0ERINE NO. 3000.020		
LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-1T) LHP INLET ENTHALPY	7.01 496.2 9.591E+05	K
TEST SECTION:		

POINT SERIAL NO. 3068.050 (TIME= 654.50 SEC)

. 49 MPA PRESSURE SAT TEMP 423.95 K 17.72 KG/SEC-M**2 MASS FLUX INLET QUALITY .296 1.260E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION .470 M .0011 M/SEC VELOCITY QUALITY .372 1035.2 W NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.841 1.372 860.6 .597 .414

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	457.6	. 298	2.25E+04	
.051	433.1	. 304	2.24E+04	
.063	428.1	. 306	2.24E+04	
.089	434.2	. 310	2.25E+04	
. 114	426.3	.313	2.25E+04	
. 140	425.3	.317	2.24E+04	
. 165	427.2	.321	2.24E+04	
. 317	426.3	. 345	2.25€+04	
.394	432.2	.356	2.36E+04	
.1:70	598.9	.372	3.53E+04	
.546	824.0	.388	2.90E+04	
.622	859.2	,403	2.66E+04	
.698	886.9	.416	2.54E+04	
.775	909.6	.429	2.51E+04	
.851	930.2	. 442	2.50E+04	
.927	947.4	.455	2.52E+04	
1.003	957.3	.468	2.48E+04	
1.067	919.1	.479	2.27E+04	1.18E+03
1.156	945.3	.492	2.285+04	9.37E+92
1.232	914.2	.504	2.27E+04	
1.257	920.0	.508	2.41E+04	
1,321	925.5	.519	2.39E+04	
1.384	992.8	.529	2.38E+04	
1.511	1017.8	.549	2.27E+04	
1.562	992.0	.557	2.37E+04	
1.613	1006.7	.565	2.35E+04	
1,689	1033.6	.577	2.32E+04	
1.765	1054.6	.589	2.30E+04	
1.816	1049.9	.597	2.15E+04	
1.867	1008.7	.605	2.32E+04	
1.918	1023.7	.613	2.30E+04	
1.994	90.9	.624	2.16E+04	

91.8

.633

2.24E+04

```
POINT SERIAL NO. 1068,060 (TIME= 718,50 SEC)
                                                                     POINT SERIAL NO. 2068.060 (TIME= 718.50 SEC)
LUOP PRESSURE(PE-3)
                                 7.07 MPA
                                                                     LOOP PRESSURE ( PE-31
                                                                                                        7.07 MPA
                                                                                                  496.4 K
FCV TEMPERATURE (TE-FCV-11)
                                496.4 K
                                                                     FCV TEMPERATURE (TE-FCV-17)
                                                                     LHP INLET ENTHALPY
LHP INLET ENTHALPY
                             9.599E+05 J/KG
                                                                                                   9.599E+05 J/KG
TEST ECTION:
                                                                      TEST SECTION:
    PRESSURE
                                 .49 MPA
                                                                          PRESSURE
                                                                                                         .49 MPA
                                                                                                     423.97 K
    SAT TEMP
                               423.97 K
                                                                          SAT TEMP
    MASS FLUX
                               17.84 KG/SEC-M**2
                                                                          MASS FLUX
                                                                                                      17.84 KG/SEC-M##2
    INIEL QUALITY
                                 .296
                                                                          INLET QUALITY
                                                                                                       .296
    INLET ENTHALPY
                             1.261E+06 J/KG
                                                                          INLET ENTHALPY
                                                                                                   1.261E+06 J/KG
QUENCH FRONT:
                                                                     QUENCH FRONT:
    ELEVATION
                                  .543 M
                                                                          ELEVATION
                                                                                                        .543 M
    VELOCITY
                               .0012 M/SEC
                                                                          VELOCITY
                                                                                                      .0012 M/SEC
    YILLAUC
                                 . 386
                                                                          QUALITY
                                                                                                        . 386
NET LUP POWER TO FLUID
                              1035.6 W
                                                                     NET LHP POWER TO FLUID
                                                                                                      1035.6 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                     TV
                            XE XA
                                                                     ELEVATION
                                                                                  DZQF
                                                                                           IV
                                                                                                  XE XA
 (M)
            (M)
                     (K)
                                                                       (M)
                                                                                  (M)
                                                                                           (K)
1.232
            .689
                  632.4 .506 .419
                                                                      1.537
                                                                                  .994 771.2 .553 .410
WALL IEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                 HEAT FLUX
ELEVATION
            TEMP
                      XE
                                               HEAT LOSS
                                                                     ELEVATION
                                                                                   TEMP
                                                                                          XE
                                                                                                        HEAT FLUX
                                                                                                                      HEAT LOSS
 (M)
              (K)
                                  M/M##5
                                                W/M##2
                                                                                                         W/M##2
                                                                       (M)
                                                                                    (K)
                                                                                                                       W/M##2
             457.4
  .013
                       .298
                                 2.31E+04
                                                                       .013
                                                                                   457.4
                                                                                              .298
                                                                                                        2.31E+04
  .051
                       .304
                                  2.30E+04
             432.8
                                                                       .051
                                                                                              . 304
                                                                                   432.8
                                                                                                        2.30E+04
                        .306
  .063
             427.9
                                 2.29E+04
                                                                       .063
                                                                                   427.9
                                                                                              . 306
                                                                                                        2.29E+04
  .089
             433.6
                        .310
                                 2.30E+04
                                                                                              .310
                                                                       .089
                                                                                   433.6
                                                                                                        2.30E+04
  . 114
             426.1
                                 2.27E+04
                                                                       . 114
                                                                                              . 314
                        . 314
                                                                                   426.1
                                                                                                        2.27E+04
  . 140
             425.3
                                 2.30E+04
                                                                                              .318
                        .318
                                                                       . 140
                                                                                   425.3
                                                                                                        2.30E+04
  .165
                        .322
             426.7
                                 2.29E+04
                                                                       . 165
                                                                                   426.7
                                                                                              .322
                                                                                                        2.29E+04
  .317
                        . 346
             425.3
                                 2.29E+04
                                                                                   425.3
                                                                       .317
                                                                                              . 346
                                                                                                        2.29E+04
                        .357
                                                                       . 394
                                                                                              .357
  . 394
             427.2
                                 2.31E+04
                                                                                   427.2
                                                                                                        2.31E+04
  470
             445.6
                                 2.51E+04
                                                                                              .370
                        .370
                                                                       .470
                                                                                   445.6
                                                                                                        2.51F+04
  .546
             601.1
                        .387
                                 4.10E+04
                                                                       .546
                                                                                   601.1
                                                                                              . 387
                                                                                                       4.10E+04
  .622
             830.3
                                 2.92E+04
                        . 405
                                                                       .622
                                                                                   830.3
                                                                                              . 405
                                                                                                       2.92E+04
  .698
             869.3
                                 2.68E+04
                                                                                              .419
                        .419
                                                                       .698
                                                                                   869.3
                                                                                                       2.68E+04
  .775
             896.1
                                  2.60E+04
                        .433
                                                                       .775
                                                                                   896.1
                                                                                              .433
                                                                                                       2.60E+04
  .851
             918.6
                        .446
                                 2.55E+04
                                                                       .851
                                                                                   918.6
                                                                                              .446
                                                                                                       2.55E+04
  .927
             936.3
                        .459
                                  2.53E+05
                                                                        .927
                                                                                   936.3
                                                                                                        2.53E+04
                                                                                              .459
 1,003
             947.4
                        .473
                                  2.52E+04
                                                                      1.003
                                                                                   947.4
                                                                                              .473
                                                                                                        2.52E+04
 1.067
             912.4
                        .483
                                 2.34E+04
                                               1.20E+03
                                                                      1.067
                                                                                   912.4
                                                                                              .483
                                                                                                        2.34E+04
                                                                                                                      1.20E+03
 1.156
             937.9
                        .497
                                  2.36E+04
                                               8.68E+02
                                                                      1.156
                                                                                   937.9
                                                                                              .497
                                                                                                        2.36E+04
                                                                                                                      8.68E+02
 1.232
             906.3
                        .509
                                  2.35E+04
                                                                      1.232
                                                                                   906.3
                                                                                              509
                                                                                                        2.35E+04
 1.257
             912.1
                        .513
                                  2.52E+04
                                                                      1.257
                                                                                   912.1
                                                                                              .513
                                                                                                        2.52E+04
 1.321
             919.6
                        . 524
                                  2.48E+04
                                                                      1.321
                                                                                   919.6
                                                                                              .524
                                                                                                        2.48E+04
                        .535
                                  2.48E+04
 1.354
             986.6
                                                                      1.384
                                                                                   986.6
                                                                                              .535
                                                                                                        2.48E+04
 1.511
            1013.4
                        .556
                                  2.36E+04
                                                                      1.511
                                                                                  1013.4
                                                                                              .556
                                                                                                        2.36E+04
 1.562
             987.7
                        .564
                                  2.45E+04
                                                                      1.562
                                                                                   987.7
                                                                                              .564
                                                                                                        2.45E+04
 1.613
            1003.2
                        .572
                                 2.44E+04
                                                                      1.613
                                                                                  1003.2
                                                                                              .572
                                                                                                        2.44E+04
                        .585
 1.689
            1031.5
                                  2.41E+04
                                                                      1.689
                                                                                  1031.5
                                                                                              .585
                                                                                                        2.41E+04
 1.765
            1054.0
                        . 597
                                  2.39E+04
                                                                      1.765
                                                                                  1054.0
                                                                                              .597
                                                                                                        2.39E+04
 1.816
            1049.7
                        .605
                                 2.24E+04
                                                                      1.816
                                                                                  1049.7
                                                                                              .605
                                                                                                        2.24E+04
 1.867
            1008.1
                        .613
                                  2.38E+04
                                                                      1.867
                                                                                  1008.1
                                                                                              .613
                                                                                                        2.38E+04
 1.918
            1024.2
                        .621
                                  2.37E+04
                                                                      1.918
                                                                                  1024.2
                                                                                              .621
                                                                                                        2.37E+04
```

1.994

91.8

.633

2.24E+04

INEL POST-CHE EXPERIMENT NO. 68

INEL POST-CHE EXPERIMENT NO. 68

POINT SERIA	AL NO. 30	68.060	(TIME= 717.50 SEC	3)	POINT SERIA	L NO. 10	68.070	(TIME=	794.50 SEC	:)
LOOP PRESSIFE TEST SECTION TEST	DRE(PE-3) ATURE(TE-FI ENTHALPY DN: GRE EMP QUALITY ENTHALPY NT: TION ITY IY	CV-1T)	7.07 MPA 496.4 K 9.600E+05 J/KG .49 MPA 423.95 K 17.84 KG/SEC .296 1.261E+06 J/KG .542 M .0012 M/SEC .386	C-M**2	LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FROM ELEVAT VELOCI QUALIT	RE(PE-3) TURE(TE-F NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION TY Y	CV-11)	9.475E 423 17 1.248E	.99 MPA 3.7 K +05 J/KG .49 MPA .90 K .80 KG/SEC 290 +06 J/KG 625 M 010 M/SEC 399	:-M**2
VAPOR TEMPI	ERATURE ME	ASUREMENT	LOCATION INFORMA	ATION	VAPOR TEMPE		ASUREMENT	LOCATI	ON INFORMA	TION
(M)	(h)	(K)	XE XA		ELEVATION (M)	DZQF (M)	TV (K)	XE	NA .	
1.841	1.300	842.9	.607 .427		1.232	.606	603.7	.512 .	438	
WALL TEMPER	RATURE MEA TEMP (K)	SUREMENT I	LOCATION INFORMAT HEAT FLUX W/M**2	HEAT LOSS W/M**2	WALL TEMPER ELEVATION (M)	ATURE MEA TEMP (K)	SUREMENT	LOCATIO	N INFORMAT EAT FLUX W/M**2	HEAT LOSS W/M**2
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	457.4 432.8 427.9 433.6 426.1 425.3 426.3 425.3 427.2 446.0 615.6 830.9 869.7 896.3 918.8 936.5 947.6 912.5 938.0 906.4 912.3 918.7 1013.5 987.8 1003.2 1031.5 1049.7 1049.7 1024.2 91.8	. 298 . 304 . 310 . 3114 . 318 . 322 . 346 . 357 . 370 . 485 . 419 . 433 . 446 . 459 . 472 . 485 . 508 . 512 . 523 . 534 . 554 . 554 . 563 . 571 . 583 . 596 . 602 . 632	2.51E+04 2.48E+04 2.48E+04 2.35E+04 2.44E+04 2.43E+04 2.41E+04 2.38E+04 2.23E+04 2.37E+04 2.36E+04	1.51E+03 1.59E+03	1.321 1.384 1.511	456.9 432.2 427.5 432.8 425.9 425.0 426.3 424.9 434.2 442.2 541.9 838.9 878.3 906.6 926.0 938.9 906.3 931.0 897.3 902.9 911.5 978.3 1008.1 982.8 999.0 1053.2 1047.7 1053.2 1047.7 1025.0 93.1	.483 .499 .512 .516 .528 .539 .561 .570 .579 .592 .605 .613	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	. 46E+04 . 45E+04 . 45E+04 . 46E+04 . 44E+04 . 44E+04 . 45E+04 . 45E+04 . 50E+04 . 50E+04 . 64E+04 . 77E+04 . 68E+04 . 64E+04 . 64E+04 . 64E+04 . 64E+04 . 65E+04 . 55E+04 . 55E+04 . 55E+04 . 57E+04 . 5	

1.867

1.918

1.994

1649.4

1007.8

1025.0

93.1

.613

.621

.630

.643

2.37E+04

2.52E+04

2.52E+04

2.37E+04

```
POINT SERIAL NO. 2068.070 (TIME= 792.50 SEC)
                                                                 POINT SERIAL NO. 3068.070 (TIME= 791.50 SEC)
LOGP PRESSURE (PE-3)
                               7.00 MPA
                                                                LOOP PRESSURE(PE-3)
                                                                                           7.00 MPA
493.8 K
FCV TEMPERATURE ( !E-FCV-11)
                            493.8 K
                                                                 FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY 9.479E+05 J/KG
                                                                LHP INLET ENTHALPY 9.480E+05 J/KG
TEST SECTION:
                                                                 TEST SECTION:
                               .49 MPA
    PRESSURE
                                                                                                .49 MPA
                                                                     PRESSURE
                          423.90 K
    SAT TEMP
                                                                     SAT TEMP
                                                                                           423.90 K
                                                                                           17.79 KG/SEC-M**2
    MASS FLUX
                        17.80 KG/SEC-M**2
                                                                     MASS FLUX
    INLET QUALITY
                              .290
                                                                     INLET QUALITY
                                                                                                 .290
    INLET ENTHALPY
                      1.248E+06 J/KG
                                                                    INLET ENTHALPY
                                                                                        1.248E+06 J/KG
QUENCH FRONT:
                                                                QUENCH FRONT:
                            .623 M
                                                                                                .622 M
    ELEVATION
                                                                     ELEVATION
                           ,0010 M/SEC
                                                                                             .0010 M/SEC
    VELOCITY
                                                                     VELOCITY
    QUALITY
                              . 398
                                                                     QUALITY
                                                                                                . 398
                         1035.5 W
NET LEP POWER TO FLUID
                                                                NET LHP POWER TO FLUID
                                                                                             1035.5 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                 VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                 ELEVATION DZQF TV XE XA
 (M)
           (M)
                    (K)
                                                                  (M)
                                                                            (M)
                                                                                     (K)
1.537
           .913 750.2 .565 .430
                                                                 1.841 1.219 830.9 .617 .441
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
            TEMP XE HEAT FLUX HEAT LOSS
ELEVATION
                                                                ELEVATION
                                                                                     XE
                                                                             TEMP
                                                                                                 HEAT FLUX
                                                                                                              HEAT LOSS
                                W/M##2
                                            W/M##2
 (M)
             (K)
                                                                              (K)
                                                                                                  W/M##2
                                                                                                               W/M**2
                                                                  (M)
  .013
            456.9
                      .292
                               2.45E+04
                                                                                     .293
                                                                  .013
                                                                             457.0
                                                                                                 2.44E+04
                             2.44E+04
 .051
            432.2
                                                                                       .299
                      .299
                                                                  .051
                                                                             432.2
                                                                                                 2.446+04
                      .301
  .063
            427.5
                               2.43E+04
                                                                  .063
                                                                             127.5
                                                                                       . 301
                                                                                                 2.43E+04
                      .305
                                                                  .089
                                                                                              2,441+04
  .089
            432.6
                               2.44E+04
                                                                             432.8
                                                                                       . 305
                      . 309
                                                                  .114
                                                                                       .309
 . 114
            425.8
                               2.42E+04
                                                                             425.8
                                                                                             2.42E+04
 .140
                      .313
                              2.42E+04
                                                                                       .314
            425.0
                                                                  . 140
                                                                             425.0
                                                                                                2.42F+08
                              2.42E+04
  . 165
            425.3
                      . 318
                                                                                       .318
                                                                  . 165
                                                                             426.3
                                                                                               2.43E+04
  .317
                      . 343
                             2.43E+04
             424.9
                                                                  .317
                                                                                       . 343
                                                                             424.8
                                                                                                2.42E+04
                             2.421+04
                      .355
  . 394
            425.1
                                                                  . 394
                                                                             425.1
                                                                                       . 355
                                                                                                2.41E+04
                             2.49E+04
                      .368
                                                                                       .368
                                                                                             2.49E+04
  .470
            434.3
                                                                  .470
                                                                             434.4
                                                                                               2.67E+04
3.85E+04
  .546
                              2.65E+04
                                                                                       .381
            442.7
                      .381
                                                                  .546
                                                                             443.0
                               3.85E+04
            567.4
  .622
                      . 398
                                                                                       .398
                                                                  .622
                                                                             582.6
                      .415
                             2.99E+04
  .698
            840.0
                                                                  .698
                                                                             840.5
                                                                                       .416
                                                                                                2.98E+04
 .775
            878.8
                               2.76E+04
                      .430
                                                                  . 775
                                                                             879.1
                                                                                                 2.76E+04
                                                                                       .431
                                                                  .851
  .851
            905.9
                      , 444
                               2.68E+04
                                                                             906.0
                                                                                                 2.68E+04
                                                                                        . 445
  .927
            926.2
                              2.64E+04
                      .458
                                                                   .927
                                                                             926.4
                                                                                        . 458
                                                                                                 2.64E+04
 1.003
            939.1
                               2.61E+04
                      .472
                                                                                                 2.62E+04
                                                                  1.003
                                                                             939.2
                                                                                        472
 1.067
            906.5
                              2.59E+04
                       .483
                                                                  1.067
                                                                             906.6
                                                                                        .483
                                                                                                 2.59E+04
                      .498
                               2.57E+04
 1.156
             931.1
                                                                 1.156
                                                                             931.2
                                                                                       .499
                                                                                                 2.57E+04
 1,232
             897.6
                      .511
                               2.48E+04
                                                                 1.232
                                                                             897.7
                                                                                        .512
                                                                                                2.47E+04
 1.257
            903.1
                               2.64E+04
                                                                                       .516
                      .516
                                                                 1.257
                                                                             903.3
                                                                                                 2.65E+04
 1.321
            911.7
                      .527
                               2.63E+04
                                                                                       .527
                                                                 1.321
                                                                             911.9
                                                                                                 2.63E+04
 1.384
            978.5
                      .538
                               2.63E+04
                                                                  1.384
                                                                             978.6
                                                                                        .539
                                                                                                 2.63E+04
 1.511
            1008.2
                       .561
                               2.50E+04
                                                                 1.511
                                                                             1008.3
                                                                                        .561
                                                                                                 2.50E+04
                      .569
 1.562
            982.9
                               2.59E+04
                                                                  1.562
                                                                             983.0
                                                                                                 2.59E+04
                                                                                       .570
 1.613
            999.1
                      .578
                               2.58E+04
                                                                  1.613
                                                                             999.2
                                                                                        .578
                                                                                                 2.58E+04
 1.689
                      .591
            1028.8
                               2.56E+04
                                                                                       .592
                                                                  1.689
                                                                             1028.9
                                                                                                 2.56E+04
 1.765
            1053.2
                      .605
                               2.53E+04
                                                                 1.765
                                                                             1053.3
                                                                                       .605
                                                                                                 2.52E+04
```

1.816

1.867

1.918

1.994

1049.5

1025.1

93.1

1007.8

.613

.622

.630

. 643

2.36E+04

2.52E+04

2.51E+04

2.36E+04

POINT SERIAL NO. 1068.080 (TIME= 863.50 SEC) 7.04 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 485.8 K 9.116E+05 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 424.02 K SAT TEMP 18.40 KG/SEC-M**2 MASS FLUX INLET QUALITY .268 1.201E+06 J/KG INLET ENTHALPY QUENCH FRONT: .697 M ELEVATION .0011 M/SEC VELOCITY QUALITY . . 390 1035.6 W NET LHP POWER TO FEUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K) (M) 1.232 .535 578.3 .493 .428

(M) (K) W/M**2 W/M**2 .013	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
.051		(K)		M/M**2	W/M**2
.051	.013	456.9	.270	2.53E+04	
.089		432.0	.276	2.53E+04	
114 425.8 287 2.52E+04 140 425.3 .291 2.52E+04 165 426.3 .295 2.52E+04 317 h24.9 .320 2.53E+04 394 425.1 .333 2.52E+04 470 431.7 .346 2.55E+04 .546 433.5 .358 2.58E+04 .622 430.4 .371 2.65E+04 .698 708.7 .391 5.13E+04 .775 853.5 .411 3.07E+04 .851 891.3 .426 2.85E+04 .927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.232 891.0 .493 2.53E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5	.063	427.6	.278	2.52E+04	
.140	.089	432.4	.283	2.53E+04	
.165	. 114	425.8	.287	2.52E+04	
.317 h24.9 .320 2.53E+04 .394 425.1 .333 2.52E+04 .470 431.7 .346 2.55E+04 .546 433.5 .358 2.58E+04 .622 430.4 .371 2.65E+04 .698 708.7 .391 5.13E+04 .851 891.3 .426 2.85E+04 .927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.232 891.0 .493 2.53E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.384 971.6 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.689 1026.3 .573 2.66E+04 1.689 1026.3 .573 2.66E+04 1.765 1052	. 140	425.3	.291	2.52E+04	
394 425.1 .333 2.52E+04 .470 431.7 .346 2.55E+04 .546 433.5 .358 2.58E+04 .622 430.4 .371 2.65E+04 .698 708.7 .391 5.13E+04 .775 853.5 .411 3.07E+04 .851 891.3 .426 2.85E+04 .927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.156 926.1 .481 2.66E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.68E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4	. 165	426.3	.295	2.52E+04	
.470 431.7 .346 2.55E+04 .546 433.5 .358 2.58E+04 .622 430.4 .371 2.65E+04 .698 708.7 .391 5.13E+04 .775 853.5 .411 3.07E+04 .851 891.3 .426 2.85E+004 .927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.232 891.0 .493 2.53E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.68E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.689 1026.3 .573 2.68E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.867 1	. 317	1124.9	.320	2.53E+04	
.546	. 394	425.1	. 333	2.52E+04	
622 430.4 .371 2.65E+04 698 708 7 .391 5.13E+04 775 853.5 .411 3.07E+04 851 891.3 .426 2.85E+04 927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.232 891.0 .493 2.53E+04 1.232 891.0 .493 2.53E+04 1.232 891.0 .493 2.53E+04 1.231 905.1 .509 2.69E+04 1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.69E+04 1.511 1003.2 .542 2.57E+04 1.513 995.3 .559 2.66E+04 1.613 995.3 .559 2.66E+04 1.613 995.3 .559 2.66E+04 1.613 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.816 1049.1 .594 2.44E+04 1.818 1025.6 .611 2.61E+04	.470	431.7	. 346	2.55E+04	
.698		433.5	. 358	2.58E+04	
.698	.622	430.4	. 371	2.65E+04	
.851 891.3 .426 2.85E+04 .927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.156 926.1 .481 2.66E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.68E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04		708.7	. 391	5.13E+04	
927 916.7 .440 2.77E+04 1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.156 926.1 .481 2.66E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.513 995.3 .559 2.66E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	.775	853.5	.411	3.07E+04	
1.003 931.8 .454 2.73E+04 1.067 901.6 .465 2.70E+04 1.156 926.1 .481 2.66E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.613 995.3 .559 2.66E+04 1.613 995.3 .559 2.66E+04 1.613 995.3 .559 2.66E+04 1.616 1049.1 .594 2.44E+04 1.816 1049.1 .594 2.44E+04 1.8167 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	.851	891.3	.426	2.85E+04	
1.067 901.6 .465 2.70E+04 1.156 926.1 .481 2.66E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.8167 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	.927	916.7	. 440	2.77E+04	
1.156 926.1 .481 2.66E+04 1.232 891.0 .493 2.53E+04 1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.513 995.3 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.867 1007.3 .603 2.64E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.64E+04	1.003	931.8	. 454	2.73E+04	
1,232 891.0 .493 2.53E+04 1,257 896.5 .498 2.69E+04 1,321 905.1 .509 2.69E+04 1,384 971.6 .520 2.68E+04 1,511 1003.2 .542 2.57E+04 1,513 995.3 .551 2.67E+04 1,613 995.3 .559 2.66E+04 1,689 1026.3 .573 2.63E+04 1,765 1052.4 .586 2.61E+04 1,816 1049.1 .594 2.44E+04 1,867 1007.3 .603 2.64E+04 1,918 1025.6 .611 2.61E+04	1.067	901.6	. 465		
1.257 896.5 .498 2.69E+04 1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.156	926.1	.481	2.66E+04	
1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.513 995.3 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.232	891.0		2.53E+04	
1.321 905.1 .509 2.69E+04 1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.513 995.3 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.257	896.5	. 498	2.69E+04	
1.384 971.6 .520 2.68E+04 1.511 1003.2 .542 2.57E+04 1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.321	905.1		2.69E+04	
1.562 978.5 .551 2.67E+04 1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04		971.6	.520	2.68E+04	
1.613 995.3 .559 2.66E+04 1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.511	1003.2	.542	2.57E+04	
1.689 1026.3 .573 2.63E+04 1.765 1052.4 .586 2.61E+04 1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.562	978.5	.551	2.67E+04	
1.765 1052.4 .586 2.61E+04 . 1.816 1049.1 .594 2.44E+04 . 1.867 1007.3 .603 2.64E+04 . 1.918 1025.6 .611 2.61E+04	1.613	995.3	.559	2.66E+04	
1.816 1049.1 .594 2.44E+04 1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.689	1026.3	.573	2.63E+04	
1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.765	1052.4	.586	2.61E+04	
1.867 1007.3 .603 2.64E+04 1.918 1025.6 .611 2.61E+04	1.816	1049.1	.594	2.44E+04	
1.918 1025.6 .611 2.61E+04		1007.3	.603	2.64E+04	
	1.918		.611		
	1.994	94.8	.624	2.46E+04	

POINT SERIAL NO. 2068.080	(TIME= 862	.50 SEC)
LOOP PRESSURE (PE-3)	7.02	MPA
FCV TEMPERATURE (TE-FCV-1T)	486.7	K
LHP INLET ENTHALPY	9.125 8+05	J/KG
TEST SECTION:		
PRESSURE	, 49	MPA
SAT TEMP	424.61	K
MASS FLUX	18.39	KG/SEC-M**2
INLET QUALITY	.268	
INLET ENTHALPY	1.202E+06	J/KG
QUENCH FRONT:		
ELEVATION	.696	M
VELOCITY	.0011	M/SEC
QUALITY	. 390	
NET LHP POWER TO FLUID	1035.6	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (K) (M) (M)

1.537 .841 720.0 .546 .422

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMATI	ON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	456.9	.271	2.52E+04	
.051	432.0	.277	2.52E+04	
.063	427.6	.279	2.51E+04	
.089	432.4	.283	2.52E+04	
.114	425.8	.287	2.51E+04	
. 140	425.3	.291	2.51E+04	
, 165	426.3	.296	2.51E+04	
. 317	424.9	. 321	2.51E+04	
. 394	425.1	. 333	2.52E+04	
.470	431.8	. 346	2.54E+04	
.546	433.5	. 359	2.56E+04	
.622	430.5	. 371	2.65E+04	
. 698	720.6	. 391	5.13E+04	
.775	854.1	.411	3.06E+04	
.851	891.6	.426	2.85E+04	
.927	916.9	.440	2.77E+04	
1.003	932.0	. 454	2.73F+04	
1.067	901.7	.465	2.68E+04	
1.156	926.2	.481	2.65E+04	
1.232	891.1	. 493	2.51E+04	
1.257	896.6	. 498	2.69E+04	
1.321	905.2	.509	2.68E+04	
1.384	971.7	.520	2.68E+04	
1.511	1003.3	.542	2.56E+04	
1.562	978.6	.551	2.68E+04	
1.613	995.4	.559	2.66E+04	
1.689	1026.3	.573	2.62E+04	
1.765	1052.5	.586	2.60E+04	
1.816	1049.1	.594	2.44E+04	
1.867	1007.4	.602	2.63E+04	
1.918	1025.6	.611	2.61E+04	
1.994	94.8	.624	2.45E+04	

94.1

.596

.609

2.90E+04

2.70E+04

1.918

1.994

1.918

1.994

1025.6

95 8

.611

.624

2.61E+04

2.45E+04

```
POINT SERIAL NO. 3068.080 (TIME= 862.50 SEC)
                                                                      POINT SERIAL NO. 1068.090 (TIME= 921.50 SEC)
LOOP PRESSURE (PE-3)
                                  7.02 MPA
                                                                      LOOP PRESSURE(PE-3)
                                                                                                         7.03 MPA
FCV TEMPERATURE (TE-FCV-11)
                              486.0 K
                                                                      FCV TEMPERATURE (TE-FCV-1T)
                                                                                                       475.4 K
LHP INCET ENTHALPY
                             9.125E+05 J/KG
                                                                      LHP INLET ENTHALPY
                                                                                                    8.646E+05 J/KG
TEST SECTION:
                                                                      TEST SECTION:
    PRESSURE
                                   .49 MPA
                                                                           PRESSURE
                                                                                                          .49 MPA
    SAT TEMP
                                424.01 K
                                                                           SAT TEMP
                                                                                                       423.95 K
    MASS FLUX
                                 18.39 KG/SEC-M**2
                                                                           MASS FLUX
                                                                                                       19.20 KG/SLC-M**2
    INLET QUALITY
                                 .268
                                                                           INLET QUALITY
                                                                                                          .239
    INLFT ENTHALPY
                             1.202E+06 J/KG
                                                                           INLET ENTHALPY
                                                                                                     1.141E+06 J/KG
QUENCH FRONT:
                                                                      QUENCH FRONT:
    ELEVATION
                                  .696 M
                                                                           ELEVATION
                                                                                                          .757 M
    VELOCITY
                                 .0011 M/SEC
                                                                           VELOCITY
                                                                                                        .0010 M/SEC
    QUALITY
                                 .390
                                                                           QUALITY
                                                                                                         .377
NET LHP POWER TO FLUID
                                1035.6 W
                                                                      NET LHP POWER TO FLUID
                                                                                                       1035.9 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                  TV
                            XE XA
                                                                      ELEVATION DZQF TV
                                                                                                   XE XA
 (M)
            (M)
                     (K)
                                                                        (M)
                                                                                   (M)
                                                                                            (K)
1.841
           1.146 813.7 .598 .431
                                                                       1,232
                                                                                   .475 571.6 .473 .417
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                      XE
                                  HEAT FLUX
                                               HEAT LOSS
                                                                      ELEVATION
                                                                                    TEMP
                                                                                            XE
                                                                                                         HEAT FLUX
                                                                                                                       HEAT LOSS
                                   W/M##2
                                                 W/M##2
 (M)
              (K)
                                                                        (M)
                                                                                     (K)
                                                                                                          W/M##2
                                                                                                                        W/M##2
  .013
             456.9
                                  2.52E+04
                                                                        .013
                                                                                    456.9
                                                                                               .242
                                                                                                         2.76E+04
  .051
             432.0
                        .277
                                  2.52E+04
                                                                        .051
                                                                                    432.1
                                                                                               .248
                                                                                                         2.75E+04
  .063
                        .279
             427.6
                                  2.51E+04
                                                                        .063
                                                                                    427.7
                                                                                               .250
                                                                                                         2.75E+04
                        .283
  .089
             432.4
                                  2.52E+04
                                                                        .089
                                                                                    432.5
                                                                                               .255
                                                                                                         2.75[+04
  .114
             425.8
                        .287
                                  2.51E+04
                                                                        . 114
                                                                                               .259
                                                                                    426.1
                                                                                                         2.74E+04
 . 140
             425.3
                        .291
                                  2.51E+04
                                                                        .140
                                                                                    425.5
                                                                                               .263
                                                                                                         2.75E+04
 .165
             426.3
                        .296
                                  2.51E+04
                                                                        . 165
                                                                                    426.4
                                                                                               .268
                                                                                                         2.75E+04
 .317
             424.9
                                  2.51E+04
                        .321
                                                                                    424.8
                                                                        .317
                                                                                               .294
                                                                                                         2.75E+04
                                                                        . 394
 . 394
             425.1
                        . 333
                                  2.52E+04
                                                                                    424.8
                                                                                               .307
                                                                                                         2.75E+04
                        . 346
  .470
             431.8
                                  2.54E+04
                                                                        .470
                                                                                    430.6
                                                                                               . 320
                                                                                                         2.76E+04
  .546
             423.5
                        . 359
                                  2.56E+04
                                                                        .546
                                                                                               . 333
                                                                                    430.8
                                                                                                         2.77E+04
                        .371
  .622
             430.5
                                  2.65E+04
                                                                        .622
                                                                                    426.7
                                                                                               . 346
                                                                                                         2.75E+04
 .698
              720.6
                        .391
                                 5.13E+04
                                                                                    456.8
                                                                        .698
                                                                                               .361
                                                                                                         3.46E+04
 .775
             854.1
                        .411
                                 3.06E+04
                                                                        .775
                                                                                    752.8
                                                                                               . 382
                                                                                                         5.09E+04
                        .426
 .851
                                 2.85E+04
             891.6
                                                                        .851
                                                                                    872.0
                                                                                                         3.28E+04
                                                                                               ,401
                                 2.77E+04
 .927
             916.9
                        .440
                                                                        .927
                                                                                    904.7
                                                                                               .417
                                                                                                         3.11E+04
 1,003
             932.0
                        .454
                                 2.73E+04
                                                                                    924.1
                                                                       1.003
                                                                                               . 431
                                                                                                         3.02E+04
1.067
             901.7
                        .465
                                  2.68E+04
                                                                                    897.2
                                                                       1.067
                                                                                               ,443
                                                                                                         2.95E+04
1.156
             926.2
                         .481
                                  2.65E+04
                                                                       1,156
                                                                                    922.5
                                                                                               . 459
                                                                                                         2.90E+04
 1.232
                                 2.51E+04
             891.1
                        .493
                                                                       1.232
                                                                                    887.5
                                                                                                         2.76E+04
                                                                                               .473
 1.257
             896.6
                        .498
                                  2.69E+04
                                                                       1.257
                                                                                    893.3
                                                                                               .477
                                                                                                         2.94E+04
1.321
             905.2
                        .509
                                  2.68E+04
                                                                       1.321
                                                                                    902.0
                                                                                               . 489
                                                                                                         2.92E+04
1.384
             971.7
                        .520
                                  2.68E+04
                                                                       1.384
                                                                                    968.5
                                                                                               .500
                                                                                                         2.93E+04
 1.511
             1003.3
                        .542
                                  2.56E+04
                                                                       1.511
                                                                                   1000.4
                                                                                               .523
                                                                                                         2.81E+04
 1.562
             978.6
                        .551
                                  2.68E+04
                                                                       1.562
                                                                                    975.0
                                                                                               .532
                                                                                                         2.94E+04
1.613
             995.4
                        .559
                                  2.66E+04
                                                                       1.613
                                                                                    992.6
                                                                                               .541
                                                                                                         2.93E+04
1.689
             1026.3
                        .573
                                  2.62E+04
                                                                       1.689
                                                                                   1024.7
                                                                                               .555
                                                                                                         2.89E+04
 1.765
             1052.5
                         .586
                                  2.60E+04
                                                                       1.765
                                                                                   1051.8
                                                                                               .569
                                                                                                         2.87E+04
1.816
            1049.1
                        .594
                                  2.44E+04
                                                                                               .578
                                                                       1.816
                                                                                   1048.6
                                                                                                         2.71E+04
1.867
            1007.4
                        .602
                                  2.63E+04
                                                                       1.867
                                                                                   1005.7
                                                                                               .587
                                                                                                         2.90E+04
```

1048.3

1605.2

1024.6

93.9

1.765

1.816

1.867

1.918

1.994

.565

.574

.583

.592

.605

2.91E+04

2.73E+04

2.93E+04

2.91E+04

2.74E+04

```
INEL POST-CHE EXPERIMENT NO. 68
           INEL POST-CHE EXPERIMENT NO. 68
                                                                     POINT SERIAL NO. 3068.090 (TIME= 932.50 SEC)
POINT SERIAL NO. 2068.090 (TIME= 933.50 SEC)
                                                                                                        7.03 MPA
                                  6.99 MPA
                                                                     LOOP PRESSURE(PE-3)
LOOP PRESSURE(PE-3)
                                                                     FCV TEMPERATURE (TE-FCV-1T)
                                                                                                       473.8 K
FCV TEMPERATURE (TE-FCV-11)
                              473.6 K
                                                                     LHP INLET ENTHALPY
                                                                                                   8.574E+05 J/KG
                             8.568E+05 J/KG
LHP INLET ENTHALPY
                                                                     TEST SECTION:
TEST SECTION:
                                                                                                        .49 MPA
                                                                          PRESSURE
                                  .49 MPA
    PRESSURE
                                                                          SAT TEMP
                                                                                                   423.95 K
                                423.96 K
    SAT TEMP
                             19.46 KG/SEC-M**2
                                                                                                     19.45 KG/SEC-M**2
                                                                          MASS FLUX
    MASS FLUX
                                                                          INLET QUALITY
                                                                                                        .235
    INLET QUALITY
                                  .234
                                                                          INLET ENTHALPY
                                                                                                   1.132E+06 J/KG
                             1.131E+06 J/KG
    INLET ENTHALPY
                                                                     QUENCH FRONT:
QUENCH FRONT:
                                                                                                         .768 M
                                                                          ELEVATION
                                  .769 M
    ELEVATION
                                                                                                      .0010 M/SEC
                                                                          VELOCITY
                                 .0010 M/SEC
    VELOCITY
                                                                          QUALITY
                                                                                                        .375
                                  . 375
    QUALITY .
                                                                     NET LHP POWER TO FLUID
                                                                                                     1035.9 W
NET LHP POWER TO FLUID
                               1035.9 W
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     ELEVATION DZQF
                                                                                          TV
                                                                                                   XE XA
ELEVATION DZOF
                    TV
                           XE XA
                                                                       (M)
                                                                                  (M)
                                                                                           (K)
            (M)
                     (K)
 (M)
                                                                                 1.073
                                                                                        806.5 .578 .422
                    708.5 .524 .410
                                                                      1.841
            . 167
 1.537
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                          XE HEAT FLUX
                     XE HEAT FLUX HEAT LOSS
                                                                     ELEVATION TEMP
                                                                                                                      HEAT LOSS
ELEVATION
             TEMP
                                                                                    (K)
                                                                                                         W/M##2
                                                                                                                       W/M##2
                                  M/M##2
                                                W/M**2
                                                                       (M)
              (K)
 (M)
                                                                       .013
                                                                                   456.9
                                                                                              .237
                                                                                                        2.80E+04
                        .237
                                  2.81E+04
  .013
             456.9
                                                                                              .244
                                                                                                        2.79E+04
                        .243
                                  2.79E+04
                                                                       .051
                                                                                   432.1
  .051
             432.1
                                                                                              .246
                        .245
                                                                        .063
                                                                                   427.8
                                                                                                        2.78E+04
             427.8
                                  2.79E+04
  .063
                                                                                              .250
                                                                       .089
                                                                                                        2.79E+04
                        .250
                                  2.79E+04
                                                                                   432.6
  .089
             432.6
                                                                        . 114
                                                                                   426.2
                                                                                              .255
                                                                                                        2.78E+04
  . 114
             426.2
                        . 254
                                  2.78E+04
                        .259
                                                                        . 140
                                                                                   425.6
                                                                                              .259
                                                                                                        2.78E+04
  . 140
                                  2.79E+04
             425.6
                                                                                                        2.79E+04
                        .263
                                  2.79E+04
                                                                        . 165
                                                                                   426.4
                                                                                              .263
  . 165
             426.4
                                                                                              .290
                                                                        .317
                                                                                                        2.79E+04
  .317
                                  2.79E+04
                                                                                   424.9
             424.9
                        .289
                                                                                              .303
                                  2.79E+04
                                                                                                        2.78E+04
                                                                        . 394
                                                                                   424.9
  . 394
             424.9
                        .302
                                                                                              .316
                                                                        .470
                                                                                   430.5
                                                                                                        2.79E+04
                                  2.80F+04
  .470
             430.5
                        .316
                                                                                              .329
                                                                                                        2.79E+04
                                  2.80E+04
                                                                        .546
                                                                                   430.6
  .546
             430.6
                        . 329
                        . 342
                                                                                              . 342
                                                                                                        2.81E+04
                                                                        .622
                                                                                   426.5
  .622
             426.4
                                  2.82E+04
                                                                                   450.8
                                                                                              .356
                                                                                                        3.15E+04
                                  3.15E+04
                                                                        .698
  .698
             450.3
                        . 356
                                                                        .775
                                                                                              .376
                                  5.38E+04
                                                                                                        5.38E+04
                        . 376
                                                                                   688.3
  .775
             682.3
                                                                                              .397
                                                                                                        3.38E+04
                        .397
                                  3.39E+04
                                                                        .851
                                                                                   866.5
  .851
             866.0
                                  3.17E+04
                                                                        .927
                                                                                   901.7
                                                                                              .412
                                                                                                        3.16E+04
  .927
             901.4
                        .412
                                                                                                        3.06E+04
                        .427
                                  3.06E+04
                                                                       1.003
                                                                                   922.3
                                                                                              .427
 1.603
              922.1
                                                                                                        2.99E+04
                                                                                              .439
                                  3.00E+04
                                                                       1.067
                                                                                   896.1
 1.067
              896.0
                        .439
             921.8
                        . 455
                                  2.94E+04
                                                                       1.156
                                                                                   921.9
                                                                                              .455
                                                                                                        2.93E+04
 1.156
                                  2.81E+04
                                                                       1.232
                                                                                   886.5
                                                                                              .469
                                                                                                        2.80E+04
                        .469
 1.232
             886.4
 1.257
                                                                                   892.6
                                                                                              .473
                                                                                                        2.97E+04
             892.5
                        .473
                                  2.97E+04
                                                                       1.257
                                                                                               .485
                                                                                                        2.95E+04
                                                                       1.321
                                                                                   901.4
 1.321
             901.3
                        . 485
                                  2.96E+04
                                  2.96E+04
                                                                       1.384
                                                                                   967.8
                                                                                               .497
                                                                                                        2.96E+04
                        .496
 1.384
             967.7
                                                                                              .519
                        .519
                                  2.84E+04
                                                                       1.511
                                                                                   999.8
                                                                                                        2.84E+04
             999.7
 1.511
                        .528
                                  2.97E+04
                                                                       1.562
                                                                                   974.2
                                                                                               .528
                                                                                                        2.96E+04
             974.1
 1.562
                                                                       1.613
                                                                                   991.9
                                                                                                        2.95E+04
                                  2.96E+04
                                                                                               .538
 1.613
             991.9
                        .538
                                                                                   1024.2
                                                                                               .551
                                                                                                        2.93E+04
                                  2.93E+04
                                                                       1.689
 1.689
             1024.2
                        .551
```

1051.4

1048.3

1005.3

1024.7

93.9

.565

. 574

.583

.592

.605

1.765

1.816

1.867

1.918

1.994

2.90E+04

2. /3E+04

2.92E+04

2.90E+04

2.73E+04

						THE TOOL	Series Room From	THEM HO. DO	
POINT SERIAL	L NO. 20	68.100 (TIME=1028.50 SEC)	COINT SERIA	AL NO. 306	8.100 (T	IME=1027.50 SE	C)
FCV TEMPERAL LHP INLET EL TEST SECTION PRESSUM SAT TEM MASS FI	RE(PE-3) TURE(TE-F NTHALPY N: RE MP LUX QUALITY	CV-11)	6.98 MPA 464.8 K 8.175E+05 J/KG .49 MPA 423.97 K 20.46 KG/SEC .210	TION ION HEAT LOSS	LOOP PRESSI FCV TEMPER LHP INLET I TEST SECTION PRESSI SAT TI MASS I	URE(PE-3) ATURE(TE-FC ENTHALPY DN: URE EMP FLUX QUALITY	V-11) 8	7.01 MPA 464.9 K .178E+05 J/KG .49 MPA 423.95 K 20.45 KG/SEG	C-M**2
QUENCH FROM ELEVAT VELOGI QUALITY NET LHP POW	T: ION TY Y ER TO FLU	i D	.863 M .0010 M/SEC .365 1035.6 W		QUENCH FROM ELEVA VELOC QUALI NET LIP POV	NT: TION ITY IY WER TO FLUI	D.	.862 M .0010 M/SEC .365 1035.6 W	
VAPOR TEMPER ELEVATION (M)	RATURE ME DZQF (M)	ASUREMENT TV (K)	LOCATION INFORMA XE XA	TION	VAPOR TEMPE ELEVATION (M)	ERATURE MEA DZQF (M)	SUREMENT LO	CATION INFORM	ATION
1.537	. 674	682.7 .	495 . 393		1.841	.979	788.6 .5	50 .407	
WALL TEMPERA ELEVATION (M)	ATURE MEA TEMP (K)	SUREMENT L	OCATION INFORMAT HEAT FLUX W/M**2	HEAT LOSS W/M**2	WALL TEMPER ELEVATION (M)	RATURE MEAS TEMP (K)	UREMENT LOC XE	CATION INFORMA HEAT FLUX W/M**2	TION HEAT LOSS W/M**2
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.511	457.1 432.9 432.9 432.9 426.2 426.2 427.9 428.9 429.9 428.9 428.9 428.9 425.6 63.2 902.2 885.7 902.2 885.5 876.5 885.3 993.5 993.5 985.7	.212 .219 .221 .225 .230 .234 .239 .265 .278 .291 .304 .317 .330 .344 .362 .381 .397 .409 .425 .439 .444 .456 .467 .490 .500 .509	2.93E+04 2.92E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.92E+04 2.92E+04 2.92E+04 3.06E+04 3.71E+04 3.71E+04 3.21E+04 3.13E+04 3.14E+04 3.14E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04 3.13E+04	W/M##2	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.384 1.511 1.562 1.613	457.1 432.2 427.9 432.4 426.2 425.7 426.3 424.8 424.9 428.9 425.2 435.7 437.2 574.2 864.0 902.6 885.9 915.6 885.2 894.4 959.9 993.6 966.9 985.9	.212 .219 .221 .226 .230 .234 .239 .265 .278 .291 .304 .317 .331 .344 .362 .381 .397 .409 .426 .439 .444 .456 .467 .490 .509 .509	2.93E+04 2.92E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.91E+04 2.92E+04 2.92E+04 2.92E+04 3.08E+04 3.08E+04 3.15E+04 3.12E+04 3.12E+04 3.12E+04 3.12E+04 3.12E+04 3.12E+04 3.12E+04 3.12E+04 3.12E+04	W/N
1.765 1.816 1.867 1.918 1.99h	1048.4 1045.7 1002.0 1023.1 93.8	.537 .546 .555 .564 .577	3.08E+04 2.89E+04 3.09E+04 3.09E+04 2.35E+04		1.765 1.816 1.867 1.918 1.994	1048.5 1045.7 1002.1 1023.2 93.8	.537 .546 .555 .564 .577	3.07E+04 2.88E+04 3.08E+04 3.07E+04 2.85E+04	

INEL POST-CHE EXPERIMENT NO. 68

POINT SERIAL NO. 2068.110 (TIME=1098.50 SEC) LOOP PRESSURE(PE-3) 7.04 MPA FCV TEMPERATURE (TE-FCV-1T) 461.6 K 8.036E+05 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.94 K SAT TEMP 20.56 KG/SEC-M**2 MASS FLUX INLET QUALITY .203 INLET ENTHALPY 1.064E+06 J/KG QUENCH FRONT: ELEVATION .932 M VELOCITY .0010 M/SEC QUALITY . 368 NET LIIP POWER TO FLUID 1035.7 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 .605 657.6 .487 .396 .

ELEVATION	TEMP	XE XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W*#5	W/M**2
.013	456.8	.205	2.94E+04	
.051	431.9	.212	2.93E+04	
.063	427.7	.214	2.93E+04	
.089	431.9	.218	2.93E+04	
. 114	426.1	.223	2.93E+04	
. 140	425.6	.227	2.93E+04	
. 165	426.1	.231	2.93E+04	
.317	424.6	.257	2.93E+04	
. 394	424.6	.271	2.93E+04	
.470	428.6	.284	2.93E+04	
.546	428.0	. 297	2.93[+04	
.622	424.6	. 310	2.93E+04	
.698	432.2	. 323	2.94E+04	
.775	430.8	. 336	2.96E+04	
.851	441.1	.350	3.09E+04	
.927	609.5	. 366	4.38E+04	
1,003	866.6	. 385	3.83E+04	
1.067	867.1	. 398	3.41E+04	
1.156	902.9	.416	3.27E+04	
1.232	864.3	.430	3.07E+04	
1.257	872.7	. 435	3.30E+04	
1.321	384.6	.447	3.22E+04	
1.384	949.4	.459	3.24E+04	
1.511	983.7	. 483	3.11E+04	
1.562	956.2	.492	3.25E+04	
1.613	976.3	.502	3.23E+04	
1.689	1011.4	.516	3.20E+04	
1.765	1041.3	.530	3.18E+04	
1.816	1038.4	.540	2.99E+04	
1.867	994.3	.549	3.19E+04	
1.918	1016.6	.558	3.19E+04	
1.994	92.4	.572	2.88E+04	

	INEL POS	T-CHF EXPER	IMENT NO	. 68	
POINT SERIA	L NO. 30	68.110 (1	IME=1098	.50 SEC	
LOOP PRESSU	RE(PE-3)		7.04	MPA	
FCV TEMPERA					
LHP INLET E		8	.036E+05	J/KG	
TEST SECTIO					
PRESSU			.49	MPA	
SAT TE			423.94	K	
MASS F	LUX		20.56	KG/SEC-	M**2
INLET	OUAL LTV	1	203		
INIET	ENTHAL PY	1	064F+06	J/KG	
QUENCH FROM	I.				
ELEVAT			.932	м	
VELOCI			.0010		
OHALLT	Y		. 368		
NET LHP POW	ER TO FLU	10	1035.7		
VAPOR TEMPE	RATURE ME	ASUREMENT L	OCATION	INFORMAT	ION
ELEVATION (M)	(M)	(K)			
4.0.4	44				
1.841	.910	757.6 .5	44 .409		
WALL TEMPER	ATURE MEA	SUREMENT LO	CATION II	NFORMATI	ON
ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		W/M	**2	W/M##2
.013	456.8	.205	2.94	E+04	
.051	431.9	.212	2.93	E+04	
.063	427.7	.214	2.93	E+04	
		.218	2.93		
. 114	426.1	.223	2.93	E+04	

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2
.013	456.8	.205	2.94E+04	
.051	431.9	.212	2.93E+04	
.063	427.7	.214	2.93E+04	
.089	431.9	.218	2.93E+04	
. 114	426.1	.223	2.93E+04	
. 140	425.6	.227	2.93E+04	
. 165	426.1	.231	2.93E+04	
.317	424.6	.257	2.93E+04	
. 394	424.6	.271	2.93E+04	
.470	428.6	.284	2.93E+04	
.546	428.0	.297	2.931+04	
.622	424.6	. 310	2.93E+04	
.698	432.2	. 323	2.94E+04	
.775	430.8	. 336	2.96E+04	
.851	441.1	. 350	3.09E+04	
.927	609.5	. 366	4.38E+04	
1.003	866.6	. 385	3.83E+04	
1.067	867.1	. 398	3.41E+04	
1.156	902.9	.416	3.27E+04	
1.232	864.3	.430	3.07E+04	
1.257	872.7	.435	3.30E+04	
1.321	884.6	.447	3.22E+04	
1.384	949.4	. 459	3.24E+04	
1.511	983.7	.483	3.11E+04	
1.562	956.2	.492	3.25E+04	
1.613	976.3	.502	3.23E+04	
1.689	1011.4	.516	3.20E+04	
1.765	1041.3	.530	3.18E+04	
1.816	1038.4	.540	2.99E+04	
1.867	994.3	.549	3.19E+04	
1.918	1016.6	.558	3.19E+04	
1.994	92.4	.572	2.88E+04	

POINT SERIAL NO. 2068.120 (TIME=1159.50 SEC) LOOP PRESSURE(PE-3) 7.06 MPA FCV TEMPERATURE (TE-FCV-1T) 460.0 K LHP INLET ENTHALPY 7.964E+05 J/KG TEST SECTION: PRESSURE .49 MPA SAT TEMP MASS FLUX 424.04 K 20.59 KG/SEC-M**2 INLET QUALITY .200 INLET ENTHALPY 1.057E+06 J/KG QUENCH FRONT: ELEVATION .999 M VELOCITY .0012 M/SEC QUALITY .380

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1035.8 W

1.537 .537 628.2 .490 .407

NET LHP POWER TO FLUID

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/N**2	W/M**2
.013	456.8	. 202	2.94E+04	
.051	431.8	.208	2.93E+04	
.063	427.7	.211	2.92E+04	
.089	431.9	.215	2.93E+04	
. 114	425.9	.219	2.92E+04	
. 140	425.5	.224	2.92E+04	
. 165	426.0	.228	2.92E+04	
.317	424.6	.254	2.92E+04	
. 394	424.5	.267	2.92E+04	
.470	428.0	.280	2.93E+04	
.546	427.6	.294	2.92E+04	
.622	424.4	. 307	2.92E+04	
.698	430.8	.320	2.94E+04	
.775	429.1	. 333	2.92E+04	
.851	433.2	. 346	2.97E+04	
.927	456.6	. 360	3.26E+04	
1.003	665.6	. 381	6.16E+04	
1.067	833.4	.400	3.69E+04	
1.156	882.1	.418	3.36E+04	
1.232	846.1	.432	3.11E+04	
1.257	855.0	.437	3.29E+04	
1.321	871.5	.449	3.23E+04	
1.384	935.8	.461	3.23E+04	
1.511	971.1	. 485	3.10E+04	
1.562	944.4	.495	3.19E+04	
1.613	964.3	.504	3.20E+04	
1.689	1000.1	.518	3.19£+04	
1.765	1030.5	.533	3.18E+04	
1.816	1027.9	.542	2.98E+04	
1.867	984.4	.551	3.16E+04	
1.918	1007.1	.560	3.15E+04	
1.994	88.5	.574	2.89E+04	

POINT SERIAL NO. 3068.120	(TIME=1159	.50 SEC)
LOOP PRESSURE(PE-3)	7.06	MPA
FCV TEMPERATURE (TE-FCV-1T)	460.0	K
LHP INLET ENTHALPY	7.964E+05	J/KG
TEST SECTION:		
PRESSURE	.49	MPA
SAT TEMP	424.04	K
MASS FLUX	20.59	KG/SEC-M**2
INLET QUALITY	,200	
INLET ENTHALPY	1.057E+06	J/KG
QUENCH FRONT:		
ELEVATION	.999	M
VELOCITY		M/SEC
QUALITY	. 380	
NET LHP POWER TO FLUID	1035.8	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.841 .842 734.7 .546 .418

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M##2
.013	456.8	.202	2.94E+04	
.051	431.8	.208	2.93E+04	
.063	427.7	.211	2.92E+04	
.089	431.9	.215	2.93E+04	
.114	425.9	.219	2.92E+04	
. 140	425.5	.224	2.92E+04	
. 165	426.0	. 228	2.92E+04	
.317	424.6	.254	2.92E+04	
. 394	424.5	.267	2.92E+04	
.470	428.0	.280	2.93E+04	
.546	427.6	. 294	2.925+04	
.622	424.4	. 307	2.92E+04	
. 698	430.8	. 320	2.94E+04	
.775	429.1	. 333	2.92E+04	
.851	433.2	. 346	2.97E+04	
.927	456.6	, 360	3.26E+04	
1.005	665.6	. 381	6.16E+04	
1.067	833.4	.400	3.69E+04	
1.156	882.1	.418	3.36E+04	
1.232	846.1	.432	3.11E+04	
1.257	855.0	.437	3.29E+04	
1.321	871.5	.449	3.23E+04	
1.384	935.8	.461	3.23E+04	
1.511	971.1	.485	3.10E+04	
1.562	944.4	.495	3.19E+04	
1.613	964.3	.504	3.20E+04	
1.689	1000.1	.518	3.19E+04	
1.765	1030.5	.533	3.18E+04	
1.816	1027.9	.542	2.98E+04	
1.867	984.4	.551	3.16E+04	
1.918	1007.1	.560	3.15E+04	
1.994	88.5	.574	2.89E+04	

	INEL POS	T-CHF EXPE	RIMENT NO.	68					ERIMENT N		
POINT SERIA	L NO. 20	68.130 (TIME=1218.	50 SEC)		POINT SERIA	L NO. 30	68.130	(TIME=121	8.50 SEC)
FCV TEMPERA LHP INLET E	TURE(TE-F	CV-17)	7.02 458.9 7.914E+05	MPA K J/KG		LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	RE(PE-3) TURE(TE-F NTHALPY	CV-11)	7.0 458. 7.914E+0	2 MPA 9 K 5 J/KG	
PRESSU SAT LE	PN: PRE MP		424.00	MPA K		PRESSU SAT TE	RE MP		424.0	9 MPA 0 K	
MASS F INLET	QUALITY ENTHALPY		20.56 .197 1.051E+06	J/KG	**2	INLET INLET	QUALITY		1.051E+0	7 6 J/KG	-11-"2
QUENCH FROM ELEVAT	IT:		1.069	M M/SEC		QUENCH FRON ELEVAT	ION		1.06	9 M 1 M/SEC	
ELEVAT VELOCI QUALIT NET LHP POW	Y IER TO FLU	ID	.386 1035.9	W		QUALIT NET LHP POW	Y ER TO FLU	10	1035.	6 9 W	
VAPOR TEMPE	RATURE ME DZQF (M)	ASUREMENT TV (K)	LOCATION I	NFORMATI	ON	VAPOR TEMPE	RATURE ME	ASUREMENT	XE XA	INFORMA	TION
1,537	.468	609.1 .	482 .407			1.841	.772	708.2	.540 .42	1	
WALL TEMPER ELEVATION (M)	TEMP (K)	SUREMENT L XE	OCATION IN HEAT W/M*	FORMATIO FLUX	N HEAT LOSS H/M**2	WALL TEMPER ELEVATION (M)	ATURE MEA TEMP (K)	SUREMENT	LOCATION HEA W/	INFORMAT T FLUX M**2	HEAT LOSS W/M**2
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470	456.6 431.7 427.6	. 199 . 206 . 208	2.93E 2.93E 2.92E	+04 +04 +04		(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	456.6 431.7 427.6	. 199 . 206 . 208	2.9 2.9 2.9	3E+04 3E+04 2E+04	
. 114	425.8 425.6 425.9	.216	2.93E 2.93E 2.93E	+04 +04 +04		.114 .140 .165	425.8 425.6 425.9	.216	2.9	3E+04 2E+04 3E+04	
.317 .394 .470 .546	424.5 424.6 427.8 427.2	.264 .278 .291	2.93E 2.93E 2.93E	+04 +04 +04		.394 .470 .546	424.6 427.8 427.2	.264 .278 .291	2.9 2.9 2.9	3E+04 3E+04 3E+04	
.622 .698 .775 .851	427.2 424.4 430.1 428.4 430.7	343	2.93E 2.93E 2.94E 2.94E 2.96E	+04 +04 +04		.622 .698 .775 .851	430.1 428.4 430.7	.304	2.9 2.9 2.9 2.9	3E+04 4E+04 4E+04 5E+04	
1.003	444.0 432.9 669.7 850.9	.357 .370 .385 .408	3.03E 3.11E 4.99E 3.62E	+04 +04 +04 +04		.927 1.003 1.067	444.0 432.9 669.7 850.9	.357 .370 .385	3.0 3.1 4.9	3E+04 1E+04 9E+04	
1.232 1.257 1.321	823.2 832.1 855.3	.428	3.26E 3.44E	+04 +04 +04		1.232 1.257 1.321	823.2 832.1 855.3	.423 .428 .441	3.20 3.40 3.3	5E+04 4E+04 1E+04	
1.384 1.511 1.562 1.613	919.1 955.7 929.7 949.2	. 453 . 477 . 487 . 497	3.32E 3.19E 3.30E 3.30E	+04 +04 +04		1.384 1.511 1.562	919.1 955.7 929.7 949.2	. 453 . 477 . 487	3.3 3.1 3.3	2E+04 9E+04 9E+04	
1.689 1.765 1.816	985.5 1016.4 1014.1	.512 .526 .536 .545 .555	3.29E 3.28E 3.09E 3.26E 3.26E	+04 +04 +04		1.689 1.765 1.816	985.5 1016.4 1014.1	.512 .526 .536	3.20 3.20 3.00	0E+04 3E+04 0E+04	
1.867 1.918 1.994	972.0 994.8 83.9	.545 .555 .569	3.26E 3.26E 2.91E	+04 +04 +04		1.867 1.918 1.994	972.0 994.8 83.9	.545 .555 .569	3.20 3.20 2.9	SE+04 SE+04 IE+04	

973.4

74.2

1.867

1.918

1.994

.546

.556

.569

3.18E+04

2.91E+04

3.17E+04

1.867

1.918

1.994

955.5

979.2

77.2

.552

.566

2.91E+04

```
POINT SERIAL NO. 3068.140 (TIME=1287.50 SEC)
                                                                      POINT SERIAL NO. 3068.150 (TIME=1342.50 SEC)
LOOP PRESSURE(PE-3)
                                  7.00 MPA
                                                                      LOOP PRESSURE(PE-3) 7.00 MPA
FCV TEMPERATURE(TE-FCV-1T) 458.3 K
LHP INLET ENTHALPY 7.889E+05 J/KG
                                                                      LOOP PRESSURE(PE-3)
                                                                                                        7.00 MPA
FCV TEMPERATURE(TE-FCV-1T) 7.Q0 MPA 458.0 K
LHP INLET ENTHALPY 7.877E+05 J/KG
TEST SECTION:
                                                                      TEST SECTION:
    PRESSURE .49 MPA
SAT TEMP 424.06 K
MASS FLUX 20.72 KG/SEC-M**2
INLET QUALITY .194
INLET ENTHALPY 1.046E+06 J/KG
CH FRONT:
                                                                          PRESSURE
                                                                          PRESSURE .49 MPA
SAT TEMP 424.13 K
MASS FLUX 20.65 KG/SEC-M**2
INLET QUALITY .195
INLET ENTHALPY 1.047E+06 J/KG
NCH FRONT:
                                                                                                         .49 MPA
                                                                       MASS FLUX
                                                                       INLET QUALITY
QUENCH FRONT:
                                                                      QUENCH FRONT:
                           1.155 M
.0014 M/SEC
.401
1035.5 W
    ELEVATION
                                                                         ELEVATION
                                                                                                     1.232 M
                                                                                                    .0014 M/SEC
    VELOCITY
                                                                          VELOCITY
    QUALITY
                                                                          QUALITY
                                                                                                         ,419
NET LHP POWER TO FLUID
                                                                      NET LHP POWER TO FLUID
                                                                                                    1035.8 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                      ELEVATION DZQF TV
                                                                                                    XE XA
            (M)
                     (K)
(M)
                                                                       (M)
                                                                                   (M)
                                                                                           (K)
            .686 677.5 .538 .429
1.841
                                                                      1.841
                                                                                  .610 652.0 .542 .441
WALL TEMPERATURE MEASUREMENT COCATION INFORMATION
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP XE HEAT FLUX HEAT LOSS
                                                                      ELEVATION TEMP XE
                                                                                                        HEAT FLUX
                                                                                                                       HEAT LOSS
                                   M/M##2
 (M)
              (K)
                                                 W/M**2
                                                                       (M)
                                                                                    (K)
                                                                                                          W/M##2
                                                                                                                        W/M##2
                     . 196
  .013
             456.8
                                  2.95E+04
                                                                                   457.0 .197
431.9 .203
427.8 .205
                                                                       .013
                                                                                                        2.97E+04
                       .203
  .051
             431.8
                                  2.94E+04
                                                                        .051
                                                                                                         2.95E+04
             427.6
                       .205
                                  2.93E+04
  .063
                                                                        .063
                                                                                                         2.95E+04
  .089
                       .209
                               2.94E+04
             431.7
                                                                                              .210
                                                                        .089
                                                                                   431.8
                                                                                                         2.96E+04
 .114
             425.8
                       .214
                              2.94E+04
                                                                                                      2,94E+04
                                                                                   425.5
                                                                        .114
                                                                                               .214
  . 140
                       .218
             425.5
                                  2.93E+04
                                                                                   425.7
                                                                                              .219
                                                                                                      2.96E+04
                                                                        . 140
                       .222
  . 165
             425.8
                               2.94E+04
                                                                       . 165
                                                                                   426.0
                                                                                               .223
                                                                                                      2.96E+04
 .317
                       .249
             424.4
                               2.94E+04
                                                                       .317
                                                                                               .249
                                                                                    424.4
                                                                                                        2.95E+04
 .394
                               2.941+04
             424.5
                       .262
                                                                        . 394
                                                                                    424.5
                                                                                               .262
                                                                                                        2.95E+04
  .470
                       .275
                                2.94E+04
             427.3
                                                                        .470
                                                                                   427.1
                                                                                               .275
                                                                                                        2.96E+04
                       .288
  .546
             426.8
                                2.94E+04
2.94E+04
                                                                                    426.6
                                                                       .546
                                                                                              .288 2.96E+04
  .622
             424.1
                        .301
                                                                        .622
                                                                                               .302
                                                                                                       2.95E+04
                                                                                    424.1
  .698
             429.1
                        . 314
                                  2.94E+04
                                                                                              .315
                                                                        .698
                                                                                    428.7
                                                                                                        2.96E+04
 .775
             427.5
                        .327
                                  2.94E+04
                                                                                              .328
                                                                                                       2.96E+04
                                                                        .775
                                                                                    427.2
                        . 340
 .851
             429.4
                                  2.94E+04
                                                                        .851
                                                                                    429.0
                                                                                               . 341
                                                                                                        2.96E+04
                        .353
  .927
             438.3
                                  2.98E+04
                                                                                    436.4
                                                                        .927
                                                                                               . 354
                                                                                                       2.99E+04
 1.003
             425.6
                        .366
                               2.98E+04
                                                                       1,003
                                                                                    424.6
                                                                                               .367
                                                                                                         2.99E+04
 1.067
             477.3
                        .378 3.28E+04
                                                                                               .379
                                                                       1.067
                                                                                    462.4
                                                                                                        3.13E+04
                              5.74E+04
3.51E+04
3.57E+04
3.34E+04
 1.156
             716.7
                       .401
                                                                       1.156
                                                                                    497.3
                                                                                               .397
                                                                                                         4.08E+04
                       .422
 1.232
             785.8
                                                                       1,232
                                                                                    655.1
                                                                                               .419
                                                                                                         5.44E+04
 1.257
             797.1
                        .427
                                                                       1.257
                                                                                    738.8
                                                                                              .426
                                                                                                         4.65E+04
 1.321
             833.3
                        .440
                                                                       1.321
                                                                                    813.2
                                                                                               441
                                                                                                        3.51E+04
                              3.33E+04
3.20E+04
3.35E+04
 1.384
             897.6
                        .452
                                                                                              . 454
                                                                       1.384
                                                                                    878.9
                                                                                                        3.47E+04
 1.511
             935.2
                        .476
                                                                                                      3.34E+04
                                                                       1.511
                                                                                    916.4
                                                                                              .479
 1.562
             909.4
                        .486
                                                                       1.562
                                                                                    888.3
                                                                                               .489
                                                                                                        3.50E+04
                                                                                                      3.36E+04
 1.613
             929.3
                        .496
                              3.29 €+04
                                                                       1.613
                                                                                    914.8
                                                                                               .499
 1.689
             967.1
                        .510
                              3.23E+04
                                                                       1.689
                                                                                    958.5
                                                                                               .514
                                                                                                        3.24E+04
1.765
             998.7
                       .525
                                3.19E+04
                                                                       1.765
                                                                                    992.4
                                                                                               .528
                                                                                                        3.17E+04
                       .534
 1.816
             997.0
                               2.99E+04
                                                                       1.816
                                                                                    990.8
                                                                                               .537
                                                                                                         2.98E+04
                              3.20E+04
3.16E+04
                       .543
```

1.816

1.867

1.918

1.994

991.2

989.5

947.9

972.1

73.7

.529

.538

.547

.557

.570

3.16E+04 2.97E+04

3.17E+04

3.15E+04 2.91E+04

```
POINT SERIAL NO. 3068.160 (TIME=1359.50 SEC)
                                    7.05 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-1T)
                                   458.3 K
LHP INLET ENTHALPY
                               7.889E+05 J/KG
TEST SECTION:
                                     .49 MPA
     PRESSURE
                                  424.15 K
     SAT TEMP
                                   20.73 KG/SEC-M**2
     MASS FLUX
                                    . 195
     INLET QUALITY
                               1.048E+06 J/KG
     INLET ENTHALPY
QUENCH FRONT:
                                   1.256 M
     ELEVATION
                                   .0015 M/SEC
     VELOCITY
                                    .426
     QUALITY
                                  1036.3 W
NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
             DZQF
                      TV
                              XE XA
ELEVATION
                      (K)
 (M)
             (M)
             .585
                     648.9 .543 .443
1.841
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                    HEAT FLUX
                                                   HEAT LOSS
                                     W/M##2
                                                    W/M##2
 (M)
               (K)
  .013
              457.0
                          . 197
                                    2.97E+04
                                    2.96E+04
  .051
              431.9
                          .204
                          .206
              427.8
                                    2.96E+04
  .063
  .089
              431.8
                          .210
                                    2.96E+04
                                    2.94E+04
  .114
              425.5
                          .215
                          .219
                                    2.96E+04
              425.7
  . 140
              426.0
                          .223
                                    2.96E+04
  . 165
  .317
                          .250
              424.4
                                    2.96E+04
  . 394
              424.5
                          .263
                                    2.95E+04
  .470
              427.1
                          .276
                                    2.96E+04
                                    2.96E+04
  .546
              426.6
                          .289
                                    2.95E+04
  .622
              424.2
                          .302
                          .315
  .698
              428.6
                                    2.96E+04
  .775
              427.2
                          .329
                                    2.97E+04
                                    2.95E+04
  .851
              428.8
                          .342
                                    3.00E+04
  .927
              436.1
                          .355
                                    3.03E+04
 1.003
              424.4
                          . 368
                          .380
                                    3.13E+04
 1.067
              460.5
 1.156
              484.9
                          .398
                                    3.78E+04
 1,232
              622.4
                          .419
                                    5.73E+04
                          .427
                                    4.98E+04
 1.257
              662.1
              808.9
                          .442
                                    3.50E+04
 1.321
              875.0
                          .455
                                    3.42E+04
 1.384
                                    3.30E+04
 1.511
              912.5
                          .480
                                    3.44E+04
              884.0
                          .490
 1.562
                                    3.34E+04
 1.613
              911.9
                          .500
              956.8
                          .515
                                    3.22E+04
 1.689
```

INEL POST-CHE EXPERIMENT NO. 68

POINT SERIA			(TIME=	181.	50 SEC)
(INFERRED V)				
LOOP PRESSU				6.07		
FCV TEMPERA		CV-11)		13.4		
LHP INLET E			1.592	2E+06	J/KG	
TEST SECTIO						
PRESSU				3.57		
SAT TE				6.77		
MASS F					KG/SEC-	-Waa5
	QUALITY			.307		
	ENTHALPY		1.592	2E+06	J/KG	
QUENCH FRON						
ELEVAT				.659		
AETOCI					M/SEC	
QUALIT				.407		
NET LHP POW	ER TO FLU	10		0.0	W	
VALOR TEMPE			T LOCAT	ION I	NEORMA	TION
(INFERRED V	APOR TEMP DZQF) IV	XE	× A		
(M)	(M)	(K)				
1.232	.573	655.0	.510	.419		
WALL TEMPER						
ELEVATION	TEMP	XE		HEAT		HEAT LOSS
(M)	(K)			W/M*	*2	M/W##5
.013	526.2	. 30	9	3.778	+04	
.051	528.8	.31		3.816		
.063	524.6	. 31		3.758		
.089	531.9	.31		3.80E		
.114	526.3	. 32		3.89E		
. 140	523.0	. 32		3.76E		
. 165	524.0	. 32		3.841	+04	
.317	525.1	. 34		4.016		
. 394	532.9	. 35		4.03E		
.470	541.1	. 36		4.04E		
.546	552.7	. 37		4.691		
.622	563.7	. 39		1.046		
.698	725.1	.42		1.421		
.775	758.1	. 44		5.118		
.851	789.8	.45		4.941		
.927	807.9	.46		4.36E		
1.003	819.6	. 47		4.218		
1.067	800.2	.48		4.838	A TO SHAREST TO SHAREST	
1.156	841.4	. 50	0	3.78E		
1.232	832.4	.51	0	4.78E		
1.257	853.2	.51	ta .	3.801		
1.321	864.0	.52	1	3.398		
1.384	917.3		7	3.078		
1.461	929.9	.53	5	2.988		
1.511	931.4	.53	9	2.776		
1.562	926.7	.54		3.57E		
1.613	943.1	. 55	0	3.936		
1.689	959.3	.55	9	3.428		
1.765	974.9	.56	7	3.208		
1.816	979.7	.57		2.838		
1.867	962.1	.57		3.376		
1.918	957.1	.58		3.498		
1.994	958.5	.59	0	2.848		
2 070	974 0	59		3 016		

2.070

974.0

.597

3.01E+04

	INET LOS	I-CHI EAT	CHIPIE	N1 NO. 09	
POINT SERIAL	NO. 10	89.021	TIME	= 209.50 SEC	1
(INFERRED V					
LOOP PRESSUR				16.15 MPA	
FCV TEMPERA		CV-11)		614.1 K	
LHP INLET E	NTHALPY		1.59	7E+06 J/KG	
TEST SECTION					
PRESSU				3.56 MPA	
SAT TEN				16.75 K	
MASS F				46.98 KG/SEC	-Muu5
	ENTHALPY		1 50	.310 7E+06 J/KG	
QUENCH FROM			1.29	7E+00 J/KG	
ELEVAT				.769 M	
VELOCI				.0029 M/SEC	
QUALITY				.408	
NET LHP POW		10		0.0 W	
			LOCA	TION INFORMA	TION
(INFERRED V					
ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			
1 222	1,63	612.0	1.77	.412	
1.232	.463	012.0	.411	.416	
WALL TEMPER	ATURE MEA	SURFMENT	OCAT	ION INFORMAT	ION
ELEVATION	TEMP	XE	L. G. G. F.	HEAT FLUX	HEAT LOSS
(M)	(K)			W/M##2	W/M**2
				and the same of th	
.013	524.8	.312		3.79E+04	
.051	526.5	.316		3.80E+04	
.063	523.3	.318		3.78E+0's	
.089	529.3	.321		3.80E+04	
. 114	524.2	. 324		3.79E+04	
. 140	522.2	.327		3.76E+04	
. 165	522.9	.330		3.77E+04 3.80E+04	
.317	523.0 529.0	. 357		3.85E+04	
. 470	533.4	.366		3.89E+04	
.546	539.2	.375		4.04E+04	
.622	533.6	. 365		4.10E+04	
.698	559.5	. 396		5.30E+04	
.775	674.8	.409		5.76E+04	
. 851	761.3	.422		5.20E+04	
.927	780.4	. 434		4.87E+04	
1.003	800.0	. 445		4.65E+04	
1.067	789.2	.453		4.08E+04	
1.156	833.1	.465		3.98E+04	
1.232	711.3	.477		6.93E+04 5.33E+04	
1.257	806.9 857.9	.482		3.82E+04	
1.321	915.5	.499		3.62E+04	
1.461	935.6	.507		3.36E+04	
1.511	939.8	.512		3.08E+04	
1.562	930.5	.517		3.31E+04	
1.613	949.4	.522		3.30E+04	
1.689	973.6	.530		3.06E+04	
1.765	992.9	.537		2.97E+04	
1.816	996.4	.541		2.77E+04	
1.867	978.8	.546		3.10E+04	
1.918	973.9	.551		3.13E+04	
1.994	979.7	.558		3.03E+04	
2.070	997.0	.565		2.92E+04	

POINT SERIAL NO. 1089.030 (TIME= 215.50 SEC) LOOP PRESSURE (PE-3) 16.05 MPA 614.0 K 1.597E+06 J/KG							
FCV TEMPERATURE (TE-FCV-II) 614.0 K LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: FLEVATION VELOCITY QUALITY NET LHP POWER TO FLU** WAPPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION OZOF TV (M) (M) (K) 1.232 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 1.235 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 1.236 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 0.013 524.6 .312 3.78E+04 .063 523.1 .318 3.77E+04 .063 523.1 .318 3.77E+04 .063 523.1 .318 3.77E+04 .064 526.2 .316 3.79E+04 .114 523.9 .324 3.78E+04 .140 522.1 .327 3.76E+04 .1317 522.6 .347 3.79E+04 .3317 522.6 .347 3.79E+04 .3317 522.6 .347 3.79E+04 .3317 522.6 .347 3.79E+04 .3470 532.3 .365 3.83E+04 .470 532.3 .365 3.83E+04 .470 532.3 .365 3.83E+04 .470 532.3 .365 3.87E+04 .546 536.4 .375 3.98E+04 .546 536.4 .375 3.98E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.39E+04 .5470 532.3 .366 4.49E+04 .5470 532.3 .	POINT SERIAL	NO. 108	89.030	(TIME	= 215.	.50 SEC)	
FCV TEMPERATURE (TE-FCV-II) 614.0 K LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: FLEVATION VELOCITY QUALITY NET LHP POWER TO FLU** WAPPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION OZOF TV (M) (M) (K) 1.232 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 1.235 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 1.236 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 0.013 524.6 .312 3.78E+04 .063 523.1 .318 3.77E+04 .063 523.1 .318 3.77E+04 .063 523.1 .318 3.77E+04 .064 526.2 .316 3.79E+04 .114 523.9 .324 3.78E+04 .140 522.1 .327 3.76E+04 .1317 522.6 .347 3.79E+04 .3317 522.6 .347 3.79E+04 .3317 522.6 .347 3.79E+04 .3317 522.6 .347 3.79E+04 .3470 532.3 .365 3.83E+04 .470 532.3 .365 3.83E+04 .470 532.3 .365 3.83E+04 .470 532.3 .365 3.87E+04 .546 536.4 .375 3.98E+04 .546 536.4 .375 3.98E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .365 3.87E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.375 3.98E+04 .5470 532.3 .366 4.39E+04 .5470 532.3 .366 4.49E+04 .5470 532.3 .	LOOP PRESSUR	F / PF = 31			16 05	МРА	
TEST SECTION: PRESSURE SAT TEMP SAT TEMP SAT TEMP 516.79 K MASS FLUX H6.91 KG/SEC-M**2 MASS FLUX H6.91 KG/SEC-M**2 MASS FLUX H6.91 KG/SEC-M**2 MASS FLUX MASS			CV-1T1				
TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET QUALITY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LIP POWER TO FLU*D 1.232 MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VELOCITY (M) 1.232 MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION ELEVATION TEMP XE MACK MY 1.232 MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION FEMP XE MYM**2 MOSS MYM**2 MOSS MOS							
PRESSURE SAT TEMP MASS FLUX INLET QUARTITY INLET QUARTITY ILET ELEVATION VELOCITY QUALITY NET LIP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION (M) (M) (K) 1.232 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION ELEVATION TEMP (M) (K) 1.232 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 1.232 .446 606.2 .482 .422 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K) 0.13 .524.6 .312 .378E+04 .051 .526.2 .316 .379E+04 .051 .526.2 .316 .379E+04 .099 .528.9 .321 .379I+04 .114 .523.9 .324 .378E+04 .099 .528.9 .321 .379I+04 .114 .523.9 .344 .379E+04 .394 .522.1 .327 .376E+04 .394 .522.1 .327 .376E+04 .394 .522.1 .327 .376E+04 .394 .522.1 .337 .522.6 .347 .379E+04 .394 .522.1 .398E+04 .398E+04 .398E+04 .470 .532.3 .365 .387E+04 .470 .532.3 .365 .387E+04 .470 .532.3 .365 .387E+04 .470 .532.3 .366E+04 .470 .532.3 .366E+04 .562 .529.2 .384 .400 .401 .628E+04 .5155 .831 .927 .772.0 .435 .531 .86E+04 .1556 .933.4 .689 .948.7 .927 .772.0 .435 .531 .86E+04 .1566 .370E+04 .1566 .398.0 .398E+04 .398E+0				1.29	11.400	3780	
SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOGITY QUALITY NET LIMP POWER TO FLU*D 1.232 MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VELOW (M) 1.232 MAGE MASS FLUX MASS FLUX MASS FLUX MASS FLUX 1.597E+06 MASS FLUX MASS MASS FLUX 1.597E+06 MASS MASS MASS MASS MASS MASS MASS MAS					2 57	MPA	
MASS FLUX INLET QUALITY INET TOTAL TYPE INTERIT ENTHALPY INTERIT ENTHALP I				5			
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INLET ENTHALFY							M2
QUENCH FRONT: ELEVATION				1 50			
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.013		(K)					
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2.070 1002.7 .300 3.112404							
	2.070	1002.7	.580		3.111	2404	

INEL POST-CHE EXPERIMENT NO. 89 INEL POST-CHF EXPERIMENT NO. 90 POINT SERIAL NO. 3090.091 (TIME= 179.50 SEC) POINT SERIAL NO. 1089.041 (TIME= 232.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.15 MPA LOOP PRESSURE(PE-3) 16.08 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-11) 614.3 K 616.3 K LHP INLET ENTHALPY LHP INLET ENTHALPY 1.599E+06 J/KG 1.615E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.57 MPA PRESSURE 3.57 MPA SAT TEMP 516.81 K 516.76 K SAT TEMP 47.92 KG/SEC-M**2 MASS FLUX 66.88 KG/SEC-M**2 MASS FLUX INLET QUALITY .321 .311 INLET QUALITY INLET ENTHALPY 1.615E+06 J/KG INLET ENTHALPY 1.599E+06 J/KG QUENCH FRONT: QUENCH FRONT: .622 M ELEVATION .842 M ELEVATION .0056 M/SEC .0038 M/SEC VELOCITY VELOCITY QUALITY .416 QUALITY .410 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF XA ELEVATION DZQF (M) (M) (K) (M) (M) (K) 1.841 1,220 763.0 1.232 .390 574.0 .485 . 440 .583 .429 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP XE ELEVATION XE W/M##2 W/M**2 W/M**2 W/M##2 (M) (K) (M) (K) 5.85E+04 3.79E+04 .013 526.8 .322 .013 524.0 . 313 .051 528.7 .327 5.88E+04 3.80E+04 .051 525.5 .317 5.84E+04 .063 522.6 .319 3.79E+04 .063 524.9 . 329 .089 531.4 .332 5.89E+04 3.81E+04 .089 528.1 .322 . 325 3.81E+04 . 114 526.9 .335 5.86E+04 . 114 523.2 3.77E+04 . 140 523.8 .338 5.82E+04 521.9 .328 . 140 5.84E+04 522.3 . 331 3.79E+04 .165 524.0 . 342 . 165 . 348 3.80E+04 .317 526.2 . 361 5.91E+04 521.9 . 317 .371 5.98E+04 526.7 .357 3.83E+04 .394 534.5 . 394 .366 3.85E+04 .470 550.4 . 381 6.53E+04 .470 530.4 . 394 588.5 8.85E+04 .546 532.8 .375 3.91E+04 .546 . 384 .622 701.6 .410 1.01E+05 526.2 3.85E+04 .622 .698 802.7 .426 9.07E+04 .698 537.9 . 393 4.05E+04 5.08E+04 .775 830.3 .439 6.92E+04 .775 556.3 .404 .851 851.3 .451 6.75E+04 .418 6.94E+04 .851 684.0 6.69E+04 4.98E+04 .927 866.2 .462 .927 751.2 .432 1.003 882.9 .473 6.67E+04 4.65E+04 1,003 776.7 .443 4.30E+03 5.89E+04 1.067 850.4 .482 1.067 776.2 .452 4.34E+04 1.156 892.0 .493 6.24E+04 8.17E+02 .469 8.46E+04 791.1 1.156 852.8 6.39E+04 1.232 .504 612.5 .485 4.92E+04 1,232 7.87E+04 1.257 879.4 .507 6.83E+04 718.7 .490 1.257 6.42E+04 901.7 .517 .501 4.08E+04 1.321 1.321 853.1 914.6 .509 3.90E+04 1.384 946.9 .526 6.42E+04 1.384 952.7 6.29E+04 3.70E+04 1.460 .536 1.461 939.9 .518 945.4 .523 3.40E+04 1.511 949.0 .543 5.85E+04 1.511 3.69E+04 1.562 940.4 .550 6.28E+04 .529 1.562 936.4 .534 3.74E+04 1,613 970.4 .556 6.18E+04 955.0 1.613 3.65E+04 1.689 988.7 .567 6.02E+04 1.689 983.5 .543 .551 3.50E+04 1.765 995.3 .576 5.89E+04 1005.2 1.765 3.27E+04 1.816 990.6 .583 5.49E+04 1.816 1008.3 .557 3.55F+04 1.867 972.5 .589 5.91E+04 1.867 990.4 .562

1.918

1.994

2.070

977.3

984.6

993.8

.596

605

.614

5.85E+04

5.57E+04

5.50E+04

3.61E+04

3.41E+04

3.29E+04

983.3

993.8

1012.9

1.918

1.994

2.070

.567

.576

.583

POINT SERIAL NO. 3090, 100 (TIME= 192.50 SEC)

LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY

3.57 MPA 516.84 K 66.87 KG/SEC-M##2 .319 1.613E+06 J/KG .694 M

VELOCITY QUALITY NET LHP POWER TO FLUID

INLET ENTHALPY

QUENCH FRONT:

2.070

999.0

ELEVATION

.0055 M/SEC .417 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.841 1.147 757.4 .583 .432

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W##5	M/W##5
.013	525.9	.321	5.85E+04	
.051	527.5	. 326	5.85E+04	
.063	524.1	.327	5.84E+04	
.089	530.1	. 330	5.87E+04	
. 114	525.8	. 334	5.84E+04	
. 140	523.3	. 337	5.82E+04	
. 165	523.3	. 340	5.83E+04	
. 317	524.4	. 360	5.86E+04	
. 294	532.1	. 369	5.86E+04	
.470	541.3	. 379	6.121+04	
.546	551.1	. 390	6.37E+04	
.622	546.4	. 401	7.00E+04	
.698	760.3	.418	1.41E+05	
.775	816.3	.436	7.13E+04	
.851	839.5	. 448	6.94E+04	
.927	855.2	. 459	6.84E+04	
1.003	872.5	.471	6.96E+04	
1.067	843.6	.480	6.09E+04	4.14E+03
1.156	885.0	.492	6.44E+04	6.22[+02
1.232	840.0	.502	6.47E+04	
1.257	865.7	.506	1.026+04	
1.321	894.5	.516	6.54E+04	
1.384	939.6	.525	6.54E+04	
1.460	947.2	.535	6.45E+04	
1.511	944.7	.542	6.02E+04	
1.562	935.4	.549	6.38E+04	
1.613	966.9	.556	6.29E+04	
1.689	986.8	.567	6.21E+04	
1.765	995.7	.577	6.10E+04	
1.816	991.3	.583	5.76E+04	
1.867	972.2	.590	6.03E+04	
1.918	977.8	.597	5.99E+04	
1.994	989.1	.606	5.68E+04	

.616

5.62E+04

POINT SERIAL NO. 1091.070 (TIME= 225.50 SEC)

LOOP PRESSURL (PE-3) 16.13 MPA FCV TEMPERATURE (TE-FCV-1T) 613.1 K LHP INLET ENTHALPY 1.589E+06 J/KG TEST SECTION: PRESSURE 3.56 MPA SAT TEMP

MASS FLUX INLET QUALITY INLET ENTHALPY 1.589E+06 J/KG QUENCH FRONT:

VELOCITY QUALITY NET LHP POWER TO FLUID

ELEVALION

.694 M .0049 M/SEC . 445 0.0 W

16.79 KG/SEC-M**2

516.74 K

. 306

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.232 .538 691.2 .638 .520

1.636	. 230	091.2 .030		
WALL TEMPER	ATURE MEAS	SUREMENT LOCA	TION INFORMATI	ON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W##5	W/M##2
.013	524.8	. 308	1.91E+04	
.051	526.5	.314	1.94E+04	
.063	523.3	.316	1.89E+04	
.089	530.3	. 321	1.92E+04	
. 114	524.1	. 325	1.92E+04	
. 140	522.2	.329	1.89E+04	
. 165	523.1	. 333	1.89E+04	
. 317	523.4	. 358	1.93E+04	
. 394	531.7	.371	1.94E+04	
.470	540.4	. 385	2.12E+04	
. 546	549.4	.400	2.36_+04	
.622	542.7	.416	2.72F+04	
.698	730.9	.447	6.47E+04	
.775	808.4	.490	6.49E+04	
.851	852.0	.530	5.68E+04	
.927	879.6	.564	4.78E+04	
1.003	903.3	.593	3.85E+04	
1.067	860.9	.610	2.31E+04	
1.156	890.3	.626	1.87E+04	
1.232	892.2	.638	1.89E+04	
1.257	903.9	.643	2.09E+04	
1.321	888.0	.654	1.95E+04	
1.384	937.8	.665	1.89E+04	
1.460	953.3	.677	1.75E+04	
1.511	956.4	. 684	1.59E+04	
1.562	954.2	.691	1.74E+04	
1.613	960.7	.699	1.71E+04	
1.689	971.4	.710	1.63E+04	
1.765	979.9	.720	1.49E+04	
1.816	980.9	.727	1.34E+04	
1.867	964.7	. 733	1.41E+04	
1.918	949.9	.739	1.44E+04	
1.994	945.9	. 748	1.22E+04	
2.070	952.1	. 755	1.10E+04	

INEL POST-CHE EXPERIMENT NO. 91

INEL POST-CHE EXPERIMENT NO. 91

POINT SERIAL NO. 2091.070	(TIME= 225.50 SEC)	POINT SERIAL NO. 1091.080	(TIME= 236.50 SEC)
LOOP PRESSURE (PE-3) FCV IEMPERATURE (IE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	16.13 MPA 613.1 K 1.589E+06 J/KG 3.56 MPA 516.74 K 16.79 KG/SEC-M**2 .306 1.589E+06 J/KG .694 M .0049 M/SEC .445 0.0 W	LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	16.11 MPA 613.6 K 1.593E+06 J/KG 3.57 MPA 516.78 K 16.79 KG/SEC-M**2 .308 1.593E+06 J/KG .754 M .0072 M/SEC .466 0.0 W
VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K)	LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMEN TV (M) (M) (K) 1.232 .478 642.5	T LOCATION INFORMATION XE XA
1.537 .843 795.9	.687 .496	1.232 .478 642.5	.661 .551
WALL TEMPERATURE MEASUREMENT	LOCATION INFORMATION	WALL TEMPERATURE MEASUREMENT	LOCATION INFORMATION
.013	1.91E+04 1.94E+04 1.98E+04 1.92E+04 1.92E+04 1.89E+04 1.89E+04 1.93E+04 1.94E+04 2.12E+04 2.36E+04 2.72E+04 6.47E+04 6.49E+04 3.85E+04 4.78E+04 1.89E+04 1.89E+04 1.89E+04 1.89E+04 1.89E+04 1.75E+04 1.75E+04 1.75E+04 1.75E+04 1.75E+04 1.74E+04 1.74E+04 1.74E+04 1.74E+04 1.74E+04 1.41E+04 1.41E+04 1.41E+04 1.41E+04 1.41E+04 1.42E+04 1.22E+04 1.10E+04	ELEVATION (K) (M) (K) .013	0 1.91E+04 7 1.92E+04 9 1.91E+04 3 1.93E+04 7 1.92E+04 2 1.89E+04 6 1.90E+04 1 1.93E+04 1 1.97E+04 7 2.07E+04 2 2.24E+04 6 6.37E+04 6 6.37E+04 9 6.76E+04 9 6.76E+04 1 2.91E+04 1 2.91E+04 1 2.91E+04 1 2.91E+04 1 2.91E+04 1 2.91E+04 1 3.31E+04 1 2.63E+04 2 1.91E+04 1 1.95E+04 1 1.95E+04 1 1.95E+04 1 1.95E+04 1 1.95E+04 1 1.53E+04

1.29E+04

959.4

2.070

POINT SERIAL NO. 2091.080 (TIME= 236.50 SEC) POINT SERIAL NO. 1091.090 (TIME= 247.50 SEC) LOOP PRESCURE(PE-3)

FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY

TEST SECTION:

16.11 MPA
613.6 K
1.594E+06 J/KG LOOP PRESSURE(PE-3)

FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY

TEST SECTION:

16.06 MPA
614.0 K
1.597E+06 J/KG TEST SECTION: SECTION:
PRESSURE
SAT TEMP
MASS FLUX
INLET QUALITY
INLET ENTHALPY
1.594E+06 J/KG PRESSURE PRESSURE 3.56 MPA
SAT TEMP 516.74 K
MASS FLUX 16.80 KG/SEC-M**2
INLET QUALITY .310
INLET ENTHALPY 1.597E+06 J/KG 3.56 MPA QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION .835 M .0072 M/SEC .0081 M/SEC VELOCITY VELOCITY .466 QUALITY .492 QUALITY NET LIP POWER TO FLUID NET LHP POWER TO FLUID W 0.0 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF; TV XE XA (M) (M) (K) (M) (M) (K) 1.232 .397 610.7 .657 .577 .783 786.7 .718 .524 1.537 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION (K) W/M##2 W/M##2 (M) (K) W/M##2 M/M##2 (M) .312 .310 .013 524.3 523.8 .312 1.91E+04 .319 1.91E+04 1.91E+04 .013 .317 525.3 .051 1.92E+04 .051 525.9 1.91E+04 1.93E+04 .319 .321 1.91E+04 .063 522.4 522.8 .063 .323 .089 528.8 .325 1.92E+04 529.5 .089 . 114 .327 .329 1.92E+04 .114 522.8 1.92E+04 523.5 1.90E+04 1.90E+04 .332 521.7 .333 . 140 521.9 . 140 1.89E+04 . 165 522.4 . 338 1,90E+04 . 165 522.8 .336 1.93E+04 1.97E+04 2.08E+04 2.25E+04 2.71E+04 4.35E+04 . 361 .317 522.0 1.9.E+04 522.7 . 363 .317 .374 . 394 .376 . 394 528.8 1.97E+04 530.2 535.2 .470 .387 . 389 2.04E+04 537.8 .470 .402 2.14E+04 .546 539.9 .403 544.5 .546 .417 .418 2.14F+04 .622 531.7 537.4 .622 566.9 .435 3.38E+04 626.0 .442 .698 .698 5.06E+04 5.87E+04 .475 .775 .463 .775 5.88E+04 624.0 719.7 .516 6.33£+04 .499 776.5 .851 710.2 .851 .555 5.53E+04 .927 .541 6.73E+04 763.7 .927 832.8 4.78E+04 3.41E+04 2.75E+04 2.89E+04 .581 5.35E+04 .607 4.02E+04 .635 3.24E+04 .657 3.46E+04 .589 1.003 818.7 859.2 1.003 .612 1.067 816.8 1.067 839.7 .636 1.156 877.4 1.156 863.4 1.232 861.2 1.232 878.3 .654 3.15E+04 1.257 865.4 .665 3.598+04 1.257 884.1 .661 1.321 877.5 .676 2.54E+04 1.321 867.9 .682 2.81E+04 929.3 2.37E+04 1.384 922.5 .697 2.56E+04 1.384 .690 945.3 1,460 948.7 .705 2.12E+04 1.460 713 2.27E+04 1.87E+04 .714 954.2 1.511 952.3 .723 2.01E+04 1.511 .722 1.97E+04 1.92F+04 .732 952.7 1.562 951.1 2.12E+04 1,562 .731 . 741 1.613 959.8 1.613 958.8 2.07E+04 1.81E+04 972.2 972.6 1.689 . 743 1.689 . 754 1.94E+04 . 755 1.67E+04 1.765 1.765 982.3 984.2 . 767 1.81E+04 .762 986.0 1.52E+04 1.816 1.816 983.7 .774 1.66E+04 . 768 .782 1.60E+04 1.867 970.9 1.867 968.2 1.76E+04 .776 1.62E+04 1.918 955.7 .790 1.918 953.1 1.77E+04 .786 1.40E+04 1.994 957.0 .801 1.994 951.8 1.55E+04

2.070

965.9

.811

1.44E+04

		INEL	POST-CHF	EXPERIMENT	NO.	91
POINT	SERIAL	NO.	2091.090	(TIME=	248.50	SEC)

LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-1T) 16.06 MPA 614.0 K LHP INLET ENTHALPY 1.597E+06 J/KG TEST SECTION: PRESSURE 3.56 MPA 516.73 K SAT TEMP 16.80 KG/SEC-M**2 MASS FLUX INLET QUALITY .310 1.597E+06 J/KG INLET ENTHALPY QUENCH FRONT: ELEVATION .843 M VELOCITY .0081 M/SEC QUALITY . 494 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K) (M)

1.537 .693 737.9 .727 .549

ELEVATION	TEMP	XE XE	HEAT FLUX	HEAT LOS
(M)	(K)		W/M2	M/M2
.013	523.7	.312	1.91E+04	
.051	525.2	.319	1.91E+04	
.063	522.3	.321	1.90E+04	
.089	528.7	. 325	1.92E+04	
.114	522.8	. 329	1.92E+04	
. 140	521.6	. 334	1.90E+04	
. 165	522.4	.338	1.90E+04	
.317	521.9	. 363	1.92E+04	
. 394	528.7	. 376	1.97E+04	
.470	535.0	. 389	2.03E+04	
.546	539.6	.403	2.14E+04	
.622	531.4	.417	2.13E+04	
.698	563.9	.435	3.28E+04	
.775	617.8	.462	4.98E+04	
.851	694.2	.498	5.85E+04	
.927	756.6	.540	6.74E+04	
1.003	814.7	.580	5.42E+04	
1.067	814.4	.606	4.07E+04	
1.156	861.9	.634	3.27E+04	
1.232	859.3	.657	3.50E+04	
1.257	863.6	.665	3.60E+04	
1.321	866.9	.682	2.82E+04	
1.384	921.8	.697	2.58E+0#	
1.460	944.9	.713	2.28E+04	
1.511	952.1	. 723	2.03E+04	
1.562	950.8	. 732	2.14E+04	
1.613	958.6	.741	2.09E+04	
1.689	972.6	. 755	1.96E+04	
1.765	984.4	.767	1.82E+04	
1.816	986.2	.775	1.67E+04	
1.867	971.1	. 783	1.77E+04	
1.918	955.9	.790	1.78E+04	
1.994	957.4	.801	1.56E+04	
2.070	966.4	.811	1.45E+04	

INEL POST-CHE EXPERIMENT NO. 91

POINT SERIAL NO. 1091.101	(TIME= 258	.50 SEC)
(INFERRED VAPOR TEMP)		
LOOP PRESSURE (PE-3)	16.09	MPA
FCV TEMPERATURE (TE-FCV-1T)	614.0	K
LHP INLET ENTHALPY	1.597E+06	J/KG
TEST SECTION:		
PRESSURE	3.56	MPA
SAT TEMP	516.73	K
MASS FLUX	16.78	KG/SEC-M**2
INLET QUALITY	.310	
INLET ENTHALPY	1.597E+06	J/KG
QUENCH FRONT:		
ELEVATION	.921	М
VELOCITY	.0073	M/SEC
QUALITY	.516	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF (M) (M) (K)

1.232 .311 595.0 .635 .560

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	M/W##5
.013	523.4	.312	1.91E+04	
.051	524.8	. 319	1.92E+04	
.063	522.0	. 321	1.91E+04	
.089	528.2	. 325	1.93E+04	
.114	522.3	. 329	1.92E+04	
. 140	521.5	. 334	1.90E+04	
. 165	522.2	. 338	1.90E+04	
.317	521.4	. 363	1.92E+04	
. 394	527.6	.376	1.97E+04	
.470	533.3	. 389	2.02E+04	
.546	537.1	.403	2.10E+04	
.622	529.3	.417	2.08E+04	
.698	556.0	. 433	2.91E+04	
.775	592.2	.456	4.07E+04	
.851	645.4	. 485	4.71E+04	
.927	690.0	.519	5.48E+04	
1.003	738.5	.554	4.95E+04	
1.067	787.6	.579	4.25E+04	
1.156	843.6	.608	3.40E+04	
1.232	830.6	.635	4.62E+04	
1.257	841.6	. 644	3.96E+04	
1.321	854.3	.664	3.11E+04	
1.384	910.2	.681	3.07E+04	
1.460	936.5	.700	2.80E+04	
1.511	944.9	.712	2.54E+04	
1.562	942.8	.724	2.77E+04	
1.613	952.2	.736	2.60E+04	
1.689	968.7	.752	2.37E+04	
1.765	982.9	. 767	2.18E+04	
1.816	985.2	.777	2.02E+04	
1.867	970.6	. 785	2.02E+04	
1.918	955.5	.794	2.02E+04	
1.994	959.5	.807	1.76E+04	
2.070	969.8	.818	1.64E+04	

	THE POOL									
POINT SERIA	L NO. 2091	.100 (TI	ME= 258.50 SE	(C)	POINT SERIA	L NO. 309	91.100 (11ME= 258	50 SEC)	
LOOP PRESSU	IRE(PE-3)		16.09 MPA		LOOP PRESSU	RE(PE-3)		16.09	MPA	
FCV TEMPERA	TURE (TE-FCV	-11)	614.4 K		FCV TEMPERA	TURELTE-FO	CV-1T1	614.4	K	
THE INLET E	NTHALPY	1.	600E+06 J/KG		THP INLET E	NTHALPY		1.600E+06	J/KG	
TEST SECTIO	IN:		0001-00 07 00		TEST SECTIO	N:			.,	
PRESSU	RE		3 56 MPA		PRESSI	BE.		3 56	MPA	
CAT TE	MP		516 73 W		CAT TE	MP		516 73	W.	
MACC E	LIIV		16 70 WE IST	C-W##2	MACO C	LUV		16 79	NO IEEE-	W##2
MASS F	OUAL LTV		10.10 80/30	U-M2	MASS F	CHALLTY		10.70	KU/ SEC-	M2
INLET	CNTHALDY		4005306 17VC		INLET	CHICALITY		1 6005406	LIVE	
FIRE I	ENIMALPY		DULLIOD J/KG		INLEI	ENTHALPY		1.00000	3/10	
QUENCH TRON			001 H		QUENCH FROM	1.0		0.24		
ELEVAI	TUN		.921 M		ELEVAI	TUN		921	MICEC	
VELOCI	11		.00/3 M/SEC		VLLUCI	IY		.0073	M/SEC	
NET LUB POL	ED TO CLUID		.214		QUALIT	TO TO TIME	100	.514	14	
NET LIP POH	EK TO FEUTO		0.0 W	C-M**2	NET LIP FOW	ER TO FLUI	U	0.0	M	
VAPOR TEMPE	RATURE MEAS	UREMENT LO	CATION INFORM	MATION	VAPOR TEMPE	RATURE MEA	ASUREMENT	LOCATION	NEORMAT	ION
(M)	(M)	(K)	. AA		(M)	(M)	(K)	AL AA		
	.616 7		Dr. 556		1 951	020	787 0	768 559		
1.337	.010	00.7 .71	, 720		1.041	.920	101.9	100 .332		
WALL TEMPER	TEMP	REMENT LOC	CATION INFORMA	HEAT LOSS W/M**2	WALL TEMPER	ATURE MEAS	SUREMENT I	OCATION II	FORMATI	ON HEAT LOSS
ELLYATION	(K)	A.E.	U/M##2	HEAT LUSS	ELEVATION	(K)	AL.	H/M	#2	M/M##2
(111)	101		W/MZ	HEAT LOSS W/M**2	(11)	111		W/13		H/H2
.013	523.3	. 314	1.91E+04		.013	523.3	. 314	1.91	+04	
.051	524.8	. 320	1.91E+04		.051	524.8	. 320	1.91	+04	
.063	522.0	. 322	1.91E+04		.063	522.0	. 322	1.911	+04	
.089	528.1	. 327	1.92E+04		.089	528.1	.327	1.921	+04	
. 114	522.2	. 331	1.91E+04		. 114	522.2	. 331	1.911	+04	
. 140	521.4	. 335	1.89E+04		.140	521.4	. 335	1.89	+04	
. 165	522.1	. 339	1.90E+04		. 165	522.1	. 339	1.901	+04	
.317	521.3	. 365	1.92E+04		.317	521.3	. 365	1.92	+04	
. 394	527.4	.377	1.96E+04		. 394	527.4	.377	1.96	+04	
.470	533.0	. 391	2.02E+04		.470	533.0	. 391	2.02	+04	
.546	536.3	.404	2.07E+04		.546	536.3	,404	2.071	+04	
.622	528.3	.418	2.03E+04		.622	528.3	.418	2.031	+04	
.698	549.2	.432	2.38E+04		.698	549.2	.432	2,381	+04	
.775	552.1	. 449	2.66E+04		.775	552.1	, 449	2.661	+04	
.851	592.6	.475	5.07E+04		.851	592.6	.475	5.071	+04	
.927	701.1	.517	7.87E+04		.927	701.1	.517	7.871	+04	
1.003	773.7	.561	5.41E+04		1.003	773.7	.561	5.411	+04	
1.067	788.3	. 588	4.37E+04		1.067	788.3	.588	4.371	+04	
1.156	845.2	.619	3.57E+04		1, 156	845.2	.619	3.571	+04	
1.232	838.7	. 644	3.93E+04		1.232	838.7	.644	3.931	+04	
1.257	843.2	.652	3.67E+04		1,257	843.2	-652	3.679	+04	
1.321	856.4	.670	2.77E+04		1.321	856.4	.670	2.771	+04	
1.384	914.5	.684	2.44E+04		1.384	914.5	.684	2.441	+04	
1.460	940.8	. 700	2.21E+04		1.460	940.8	.700	2.21	+04	
1.511	949.5	.709	2.04E+04		1.511	949.5	709	2 044	+04	
1.562	948.5	.719	2.21E+04		1.562	948 5	719	2 216	+04	
1.613	956.8	.728	2.18E+04		1.613	956.8	728	2 186	+04	
1.689	972.1	.742	2.06E+04		1.689	972 1	712	2.06	+04	
1.765	985.3	.756	1.925+04		1.765	085 3	756	1 021	+04	
1.816	987.4	764	1.78E+04		1.816	987 4	764	1 701	+04	
1.867	972 6	.772	1.90E+0/4		1 867	972 6	772	1.701	+04	
1.918	957	.780	1.905+04		1 918	957 3	780	1.900	×04	
1.994	961.2	792	1.71E+04		1 994	961 3	700	1.90	+04	
2.070	971.4	803	1.58E+04		2 070	971 4	803	1 50	+04	
	2.1.1.1				2.070	321.9	.003	1.30	104	

972.5

.820

1.79E+04

```
POINT SERIAL NO. 2091.111 (TIME= 271.50 SEC)
POINT SERIAL NO. 1091.111 (TIME= 271.50 SEC)
                                                                       (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                                                        16.08 MPA
                                                                       LOOP PRESSURE (PE-3)
                                 16.08 MPA
LOOP PRESSURE(PE-3)
                                                                       FCV TEMPERATURE (TE-FCV-1T)
                                                                                                       614.2 K
FCV TEMPERATURE ( TE-FCV-1T )
                                614.2 K
                                                                       LHP INLET ENTHALPY
                                                                                                     1.598E+06 J/KG
                             1.598E+06 J/KG
LHP INLET ENTHALPY
                                                                       TEST SECTION:
TEST SECTION:
                                                                                                          3.57 MPA
                                                                            PRESSURE
    PRESSURE
                                  3.57 MPA
                                                                                                        516.78 K
                                                                            SAT TEMP
     SAT TEMP
                                516.78 K
                                                                                                         16.78 KG/SEC-M**2
                                                                            MASS FLUX
    MASS FLUX
                                16.78 KG/SEC-M**2
                                                                            INLET QUALITY
                                                                                                          .311
     INLET QUALITY
                                .311
                                                                            INLET ENTHALPY
                                                                                                     1.598E+06 J/KG
     INLET ENTHALPY
                             1.598E+06 J/KG
                                                                       QUENCH FRONT:
QUENCH FRONT:
                                                                                                          1.001 M
                                                                            ELEVATION
    ELEVATION
                                 1.001 M
                                                                                                         .0051 M/SEC
                                                                            VELOCITY
     VELOCITY
                                 .0051 M/SEC
                                  .527
                                                                                                          .516
    QUALITY
                                                                            QUALITY
                                                                       NET LHP POWER TO FLUID
                                                                                                           0.0 W
NET LHP POWER TO FLUID
                                   0.0 W
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                                   DZQF
                                                                                             TV
                                                                                                           XA
ELEVATION
           DZQF
                     TV
                                                                       ELEVATION
                                                                        (M)
                                                                                    (M)
                                                                                             (K)
 (M)
            (M)
                     (K)
                                                                        1.537
                                                                                    .536
                                                                                           652.0
                                                                                                    . 685
1.232 .231
                  570.0 .625 .571
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
             TEMP
                                                HEAT LOSS
                                                                       ELEVATION TEMP
                                                                                             XE
                                                                                                          HEAT FLUX
                                                                                                                         HEAT LOSS
ELEVATION
                     XE
                                 HEAT FLUX
                                                                                                           W/M##2
              (K)
                                   W/M##2
                                                 W/M##2
                                                                        (M)
                                                                                      (K)
                                                                                                                          W/M##2
 (M)
                                                                                                           1.91E+04
 .013
                        .313
                                                                         .013
                                                                                     522.9
                                                                                                .313
              523.0
                                   1.91E+04
                                                                         .051
                                                                                     524.3
                                                                                                .320
                                                                                                           1.92E+04
  .051
              524.4
                        .319
                                   1.91E+04
                                                                                                .322
              521.6
                        .321
                                   1.91E+04
                                                                         .063
                                                                                     521.6
                                                                                                           1.91E+04
  .063
  .089
              527.5
                        .326
                                   1.92E+04
                                                                         .089
                                                                                     527.4
                                                                                                .326
                                                                                                          1.91E+04
 .114
                        .330
                                   1.92E+04
                                                                         . 114
                                                                                     521.7
                                                                                                . 330
                                                                                                           1.91E+04
              521.8
                                                                                                . 334
  .140
                        . 334
                                                                         . 140
                                                                                     521.2
                                                                                                          1.89E+04
              521.2
                                   1.90E+04
                                                                         . 165
                                                                                                .339
                        .338
                                                                                     521.9
                                                                                                           1.90E+04
  .165
             521.9
                                   1.97E+04
                                                                         .317
                                                                                                .364
 .317
             529.8
                        . 364
                                   1.92E+04
                                                                                     520.8
                                                                                                           1.92E+04
                        .376
 .394
              526.3
                                   1.96E+04
                                                                         . 394
                                                                                     526.1
                                                                                                .377
                                                                                                           1.97E+04
  .470
              531.2
                        .390
                                   2.00E+04
                                                                         .470
                                                                                     530.9
                                                                                                .390
                                                                                                          2.00E+04
                                   2.05E+04
                                                                         .546
                                                                                     533.5
                                                                                                .403
                                                                                                           2.03E+04
  .546
              534.0
                         .403
                                   2.01E+04
                                                                         .622
                                                                                     526.2
                                                                                                .416
                                                                                                           1.99E+04
  .622
              526.7
                         .416
              544.6
                         .431
                                   2.30E+04
                                                                         .698
                                                                                     542.6
                                                                                                . 430
                                                                                                           2.20E+04
  .698
  .775
              547.6
                         .448
                                   2.84E+04
                                                                         .775
                                                                                     543.0
                                                                                                . 445
                                                                                                           2.26E+04
                                                                                                           2.64E+04
  .851
              589.4
                         .470
                                   3.87E+04
                                                                         .851
                                                                                     560.0
                                                                                                .461
                                   4.76E+04
                                                                         .927
                                                                                     581.2
                                                                                                .485
                                                                                                           4.55E+04
  .927
              632.0
                         .498
                         .528
                                   4.23E+04
                                                                        1.003
                                                                                     666.0
                                                                                                .516
                                                                                                           4.96E+04
 1.003
              659.4
                                                                                                .541
 1.067
              742.9
                         .554
                                   5.13E+04
                                                                        1.067
                                                                                     752.3
                                                                                                           4.10E+04
 1.156
              814.6
                         .591
                                   4.51E+04
                                                                        1.156
                                                                                     820.1
                                                                                                .571
                                                                                                           3.58E+04
                                                                                                          4.64E+04
 1.232
              776.7
                         .625
                                   5.68E+04
                                                                        1.232
                                                                                     801.9
                                                                                                .598
                         .636
                                   4.55E+04
                                                                        1.257
                                                                                     815.7
                                                                                                .608
                                                                                                           3.85E+04
 1.257
              806.0
                                                                                                .627
              835.7
                         .658
                                   3.17E+04
                                                                        1.321
                                                                                     840.9
                                                                                                           3.16E+04
 1.321
                        .675
 1.384
              892.2
                                   3.16E+04
                                                                        1.384
                                                                                     900.8
                                                                                                .645
                                                                                                           3.32E+04
 1.460
              922.5
                        .695
                                   2.93E+04
                                                                        1.460
                                                                                     931.2
                                                                                                .666
                                                                                                          3.01E+04
                        .708
 1.511
              932.7
                                   2.73E+04
                                                                        1,511
                                                                                     940.8
                                                                                                .679
                                                                                                          2.77E+04
                        .720
              929.5
                                   2.90E+04
                                                                        1.562
                                                                                     938.9
                                                                                                .691
                                                                                                          3.04E+04
 1.562
                                                                                                .704
             941.4
                         .732
                                   2.72E+04
                                                                        1.613
                                                                                     949.0
                                                                                                          2.84E+04
 1.613
                                                                                                .722
 1.689
              961.3
                         . 750
                                   2.48E+04
                                                                        1.689
                                                                                     967.5
                                                                                                          2.48E+04
                         .766
 1.765
              977.7
                                   2.33E+04
                                                                        1.765
                                                                                     983.7
                                                                                                . 737
                                                                                                          2.17E+04
 1.816
              980.9
                         775
                                   2.14E+04
                                                                        1.816
                                                                                     986.4
                                                                                                . 747
                                                                                                          2.01E+04
                                  2.21E+04
              967.6
                         .785
                                                                        1.867
                                                                                     971.7
                                                                                                .756
                                                                                                          2.08E+04
 1.867
                                                                                                .765
 1.918
              953.2
                         .795
                                   2.13E+04
                                                                        1.918
                                                                                     956.7
                                                                                                          2.05E+04
                        .808
                                                                                                .778
 1.994
              960.5
                                   1.92E+04
                                                                        1.994
                                                                                     963.5
                                                                                                          1.82E+04
```

2.070

975.4

.789

1.69E+04

960.6

974.6

1.994

2.070

.802

.816

.830

2.31E+04

2.10E+04

1.97E+04

2.070

975.1

.783

1.67E+04

```
POINT SERIAL NO. 3091, 110 (TIME= 270,50 SEC)
                                                                        POINT SERIAL NO. 2091.121 (TIME= 287.50 SEC)
                                                                        (INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                                  16.07 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           16.12 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                  614.2 K
                                                                        FCV TEMPERATURE (TE-FCV-1T)
                                                                                                          614.1 K
LHP INLET ENTHALPY
                              1.599E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                      1.597E+06 J/EG
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                   3.57 MPA
                                                                             PRESSURE
                                                                                                           3.56 MPA
     SAT TEMP
                                516.78 K
                                                                             SAT TEMP
                                                                                                          516.71 K
    MASS FLUX
                                 16.78 KG/SEC-M**2
                                                                             MASS FLUX
                                                                                                          16.79 KG/SEC-M**2
                                   .311
     INLET QUALITY
                                                                             INLET QUALITY
                                                                                                            . 310
     INLET ENTHALPY
                              1.599E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                       1.597E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
    ELEVATION
                                   .996 M
                                                                             ELEVATION
                                                                                                           1.090 M
                                  .0051 M/SEC
     VELOCITY
                                                                             VELOCITY
                                                                                                           .0050 M/SEC
    QUALITY
                                   .517
                                                                             QUALITY
                                                                                                           .531
NET LHP POWER TO FLUID
                                    0.0 W
                                                                        NET LHP FOWER TO FLUID
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                      TV
                              XE
                                  XA
                                                                        (INFERRED VAPOR TEMP)
 (M)
             (M)
                      (K)
                                                                        ELEVATION DZQF
                                                                          (M)
                                                                                     (M)
                                                                                              (K)
1.841
             .845
                     770.4 .746 .545
                                                                         1.537
                                                                                    1.537
                                                                                             615.0 .710 .611
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                        XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                    W/M##2
 (M)
              (K)
                                                  M/W##5
                                                                        ELEVATION
                                                                                      TEMP
                                                                                                XE
                                                                                                           HEAT FLUX
                                                                                                                          HEAT LOSS
                                                                          (M)
                                                                                       (K)
                                                                                                             W/M**2
                                                                                                                           W/M##2
  .013
              522.9
                         .313
                                   1.91£+04
  .051
              524.3
                         .320
                                   1.91E+04
                                                                          .013
                                                                                      522.6
                                                                                                            1.91E+04
                        .322
  .063
              521.6
                                   1.91E+04
                                                                          .051
                                                                                      523.9
                                                                                                  .319
                                                                                                            1.92E+04
  .089
                         .326
                                   1.92E+04
                                                                                                 .321
              527.5
                                                                          .063
                                                                                      521.2
                                                                                                            1.91E+04
  .114
              521.7
                         .330
                                   1.92E+04
                                                                                                 .325
                                                                          .089
                                                                                      526.9
                                                                                                            1.92E+04
  .140
              521.2
                         .334
                                   1.90E+04
                                                                          .114
                                                                                      521.3
                                                                                                  .329
                                                                                                            1.92E+04
  . 165
              521.9
                         .339
                                   1.90E+04
                                                                          . 140
                                                                                      521.0
                                                                                                 . 334
                                                                                                            1.90E+04
  .317
                                   1.92E+04
                                                                          . 165
              520.8
                         . 364
                                                                                      521.6
                                                                                                 .338
                                                                                                           1.91E+04
                         .377
  . 394
              526.3
                                   1.97E+04
                                                                          .317
                                                                                      520.3
                                                                                                  .363
                                                                                                            1.92E+04
  .470
              531.0
                         .390
                                   2.00E+04
                                                                          .394
                                                                                      525.0
                                                                                                  .376
                                                                                                            1.95E+04
 .546
              533.7
                         .403
                                   2.03E+04
                                                                          .470
                                                                                      529.1
                                                                                                  . 389
                                                                                                            1.98E+04
  .622
              526.3
                         .417
                                   1.29E+04
                                                                          .546
                                                                                      531.2
                                                                                                  .402
                                                                                                           2.01E+04
  .698
                                   2.21E+04
              543.0
                         .431
                                                                          .622
                                                                                      524.6
                                                                                                  .415
                                                                                                           1.97E+04
 .775
                                   2.29E+04
              543.5
                         . 445
                                                                          .698
                                                                                      536.0
                                                                                                  .429
                                                                                                            2.11E+04
                                                                          .775
  .851
              561.0
                         .462
                                   2.68E+04
                                                                                      537.6
                                                                                                  .443
                                                                                                           2,15E+04
              584.7
                                   4.92E+04
  .927
                         .487
                                                                          .851
                                                                                      550.9
                                                                                                  . 458
                                                                                                           2.32E+04
1.003
              691.3
                                   4.99E+04
                         .520
                                                                          .927
                                                                                      561.0
                                                                                                  .475
                                                                                                           2.71E+04
 1.067
              754.9
                         .545
                                   4.13E+04
                                                                         1.003
                                                                                      571.4
                                                                                                  . 494
                                                                                                           3.31E+04
 1.156
              822.0
                         .575
                                   3.54E+04
                                                                         1.067
                                                                                      691.7
                                                                                                  .519
                                                                                                           5.62E+04
1.232
              805.2
                                   4.59E+04
                         .602
                                                                         1.156
                                                                                      777.6
                                                                                                  .563
                                                                                                           5.73E+04
                         .611
              817.9
                                   3.68E+04
1.257
                                                                         1.232
                                                                                      712.9
                                                                                                  .604
                                                                                                            6.79E+04
1.321
              842.2
                         .629
                                   3.02E+04
                                                                         1.257
                                                                                      764.3
                                                                                                  .619
                                                                                                            6.45E+04
 1.384
              902.2
                         .646
                                   3.07E+04
                                                                         1.321
                                                                                      815.1
                                                                                                  .646
                                                                                                            3.40E+04
1.460
              932.3
                         .665
                                   2.80E+04
                                                                                      871.4
                                                                         1.384
                                                                                                  . 666
                                                                                                           3.62E+04
 1,511
              941.8
                         .677
                                   2.60E+04
                                                                         1.460
                                                                                      905.7
                                                                                                  .689
                                                                                                           3.38E+04
 1.562
              940.0
                                   2.82E+04
                         .689
                                                                         1.511
                                                                                                 .703
                                                                                      917.3
                                                                                                            3.19E+04
1.613
              949 9
                         .701
                                   2.65E+04
                                                                         1.562
                                                                                      912.4
                                                                                                  . 718
                                                                                                            3.37E+04
                         .718
              968.0
1.689
                                   2.33E+04
                                                                         1.613
                                                                                      927.5
                                                                                                 .732
                                                                                                            3.09E+04
1.765
              981.9
                         .733
                                   2.09E+04
                                                                         1.689
                                                                                      951.8
                                                                                                  .751
                                                                                                           2.78E+04
                         . 741
1.816
              98 ... 6
                                   1.92E+04
                                                                                                 .769
                                                                         1.765
                                                                                      971.2
                                                                                                            2.61E+04
1.867
              971.8
                         .750
                                   2.04E+04
                                                                         1.816
                                                                                                 .780
                                                                                      975.4
                                                                                                            2.41E+04
1.918
              956.0
                                   2.01E+04
                         .759
                                                                         1.867
                                                                                      963.2
                                                                                                  .791
                                                                                                            2.45E+04
1.994
                         .772
              963.4
                                   1.79E+04
                                                                         1.918
```

16.14 MPA

3.57 MPA

516.80 K

.311

1.156 M

.572

XA

0.0 W

.0050 M/SEC

```
INEL POST-CHE EXPERIMENT NO. 91
           INEL POST-CHE EXPERIMENT NO. 91
                                                                     POINT SERIAL NO. 2091.131 (TIME= 298.50 SEC)
POINT SERIAL NO. 3091.121 (TIME= 287.50 SEC)
                                                                     (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                     1.00P PRESSURE(PE-3)
                                16.12 MPA
LOOP PRESSURE (PE-3)
                                                                     FCV TEMPERATURE (TE-FCV-1T)
                                                                                                   614.1 K
FCV TEMPERATURE (TE-FCV-1T)
                               614.0 K
                                                                                                  1.597E+06 J/KG
                                                                     LHP INLET ENTHALPY
                             1.597E+06 J/KG
LHP INLET ENTHALPY
                                                                     TEST SECTION:
TEST SECTION:
                                                                         PRESSURE
    PRESSURE
                                 3.56 MPA
                                                                          SAT TEMP
                               516.71 K
    SAT TEMP
                                                                                                    16.78 KG/SEC-M**2
                               16.79 KG/SEC-M**2
                                                                         MASS FLUX
    MASS FLUX
                                .310
                                                                          INLET QUALITY
    INLET QUALITY
                                                                          INLET ENTHALPY
                                                                                                  1.597E+06 J/KG
    INLET ENTHALPY
                             1.597E+06 J/KG
                                                                     QUENCH FRONT:
QUENCH FRONT:
                                                                         ELEVATION
                                1.090 M
    ELEVATION
                                .0050 M/SEC
                                                                          VELOCITY
    VELOCITY
                                 .528
                                                                          QUALITY
    QUALITY
                                                                     NET LHP POWER TO FLUID
NET LHP POWER TO FLUID
                                 0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                                         TV
                                                                     ELEVATION DZQF
ELEVATION
           DZQF
                                                                      (M)
                                                                                 (M)
                                                                                          (K)
            (M)
                     (K)
 (M)
                                                                                                 .735 .644
                                                                      1.537
                                                                                         600.0
1.841
           1.841
                 735.0 .805 .609
                                                                                1.537
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                            HEAT LOSS
                                 HEAT FLUX
ELEVATION
             TEMP
                       XE
                                  H/M**2
                                                W/M**2
              (K
 (M)
 .013
                                  1.91E+04
             522.5
                        .312
                                  1.91E+04
  .051
             523.8
                        .319
                        .321
                                  1.91E+04
  .063
             521.2
                        .325
             526.7
                                  1.91E+04
  .089
 . 114
                        .329
             521.2
                                  1.92E+04
 . 140
                                 1.90E+04
                        . 333
             521.0
                        .337
                                 1.91E+04
 . 165
             521.6
                                 1.92E+04
             520.2
                        . 363
 .317
                        .376
 .354
             524.8
                                  1.95E+04
                                 1.98E+04
  .470
             528.9
                        .389
                                 2.00E+04
                        .402
  .546
             530.8
                                  1.97E+04
             524.3
                        .415
  .622
```

.428

. 442

.457

.473

.490

.516

.561

.606 .622

.648

.669

.695

.712

.728

. 744

.766

. 786

.799

.811

.823

.839

.853

2.10E+04

2.13E+04

2.25E+04

2.51E+04

2.88E+04

6.51E+04

5.15E+04

8.44E+04

5.75E+04

3.71E+04

4.04E+04

3.83E+04

3.52E+04

3.80E+04

3.47E+04

3.13E+04

3.03E+04

2.78E+04

2.69E+04

2.54E+04

2.30E+04

2.16E+04

537.3

536.8

549.4

557.6

544.4

693.6

786.5

716.9

766.2

812.0

867.6

902.2

914.3

908.0

923.9

949.4

969.7

974.1

962.7 949.0

960.7

974.9

. 698

.775

.851

.927

1.003

1.067

1.156

1.232

1.257

1.321

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816 1.867

1.918 1.994

2.070

WALL TEMPE	RATURE MEASU	REMENT LOC	CATION INFORMAT	ION
ELEVATION (M)	TEMP (K)	XE	HEAT FLUX	W/M##2
11	7.77			
.013	522.3	.313	1.91E+04	
.051	523.6	.319	1.91£+04	
.063	521.0	.321	1.90E+04	
.089	526.5	. 325	1.91E+04	
.114	521.0	. 329	1.91E+04	
. 140	520.9	. 334	1.90E+04	
. 165	521.5	. 338	1.908+04	
.317	520.0	. 363	1.91E+04	
. 394	524.3	.376	1.948+04	
. 470	528.0	. 389	1.96E+04	
.546	529.7	.402	1.981+04	
.622	523.6	.415	1.95E+04	
.698	535.2	.428	2.05E+04	
.775	534.3	,442	2.07E+04	
. 851	545.7	.456	2.18E+04	
.927	551.8	.471	2.29E+04	
1,003	537.4	.486	2.25€+04	
1.067	635.7	.512	7.15E+04	
1.156	722.2	.572	8.38E+04	
1.232	630.7	.624	7.53E+04	
1.257	718.9	.642	8.97E+04	
1.321	795.0	.676	3.23E+04	
1.384	848.8	.694	3.31E+04	
1.460	885.1	.715	3.07E+04	
1.511	898.2	.728	2.94E+04	
1.562	891.5	.741	2.82E+04	
1.613	910.3	.753	2.67E+04	
1.689	938.5	.770	2.50E+04	
1.765	958.9	.787	2.51E+04	
1.816	964.5	.798	2.28E+04	
1.867	954.7			
		.808	2.56E+04 2.23E+04	
1.918	942.9	.819		
1.994	956.5	.833	2.16E+04	
2.070	972.2	. 847	2.05E+04	

HEAT LOSS

W/M##2

1.918

1.994

2.070

942.9

956.5

972.2

.833

. 847

2.23E+04

2.16E+04

2.05E+04

```
POINT SERIAL NO. 3091,131 (TIME= 208.50 SEC)
                                                                       POINT SERIAL NO. 2091, 140 (TIME= 303.50 SEC)
(INTERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                 16.14 MPA
                                                                      LOOP PRESSURE(PE-3)
                                                                                                         16.06 MPA
FCV TEMPERATURE (TE-FL.-1T)
                               614.1 K
                                                                      FCV TEMPERATURE (TE-FCV-1T)
                                                                                                        614.1 K
LHP INLET ENTHALPY
                             1.597E+06 J/KG
                                                                      LHP INLET ENTHALPY
                                                                                                     1.598E+06 J/KG
TEST SECTION:
                                                                      TEST SECTION:
     PRESSURE
                                  3.57 MPA
                                                                           PRESSURE
                                                                                                         3.57 MPA
     SAT TEMP
                                516.80 K
                                                                           SAT TEMP
                                                                                                       516.77 K
     MASS FLUX
                                 16.78 KG/SEC-M**2
                                                                           MASS FLUX
                                                                                                       16.77 KG/SEC-M**2
     INLET QUALITY
                                 .311
                                                                           INLET QUALITY
                                                                                                          .311
     INLET ENTHALPY
                             1.597E+06 J/KG
                                                                                                     1.598E+06 J/KG
                                                                           INLET ENTHALPY
QUENCH FRONT:
                                                                      QUENCH FRONT:
    ELEVATION
                                 1.156 M
                                                                           ELEVATION
                                                                                                         1.230 M
    VELOCITY
                                 .0050 M/SEC
                                                                           VELOCITY
                                                                                                         .0050 M/SEC
    QUALITY
                                  .572
                                                                           QUALITY
                                                                                                         .625
NET LHP POWER TO FLUID
                                   0.0 W
                                                                      NET LIIP POWER TO FLUID
                                                                                                          0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                      ELEVATION DZQF
                                                                                          TV
                                                                                                    XE XA
ELEVATION DZQF
                     TV
                             XE
                                   XA
                                                                        (M)
                                                                                   (M)
                                                                                             (K)
 (M)
            (M)
                     (K)
                                                                                  1,537 584.9 .735 .658
                                                                       1.537
1.841
                    712.0 .803 .621
           1.841
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      ELEVATION
                                                                                    TEMP
                                                                                            XE
                                                                                                         HEAT FLUX
ELEVATION
             TEMP
                     XE
                                HEAT FLUX
                                                HEAT LOSS
                                                                        (M)
                                                                                     (K)
                                                                                                          W/M**2
 (M)
              (K)
                                   W/M##2
                                                 W/M##2
                                                                        .013
                                                                                    522.3
                                                                                               .313
                                                                                                          1.91E+04
             522.3
 .013
                        .313
                                  1.91E+04
                                                                        .051
                                                                                               .319
                                                                                    523.6
                                                                                                          1.92E+04
 .051
             523.6
                        .319
                                  1.91E+04
                                                                        .063
                                                                                     521.0
                                                                                               .321
                                                                                                         1.911+04
                        .321
 .063
             521.0
                                  1.90E+04
                                                                                               . 326
                                                                        .089
                                                                                     526.5
                                                                                                         1.91E+04
 .089
             526.5
                        . 325
                                  1.91E+04
                                                                        . 114
                                                                                               .330
                                                                                     520.9
                                                                                                         1.91E+04
 .114
             521.0
                        .329
                                                                        . 140
                                 1.91E+04
                                                                                     521.0
                                                                                               . 334
                                                                                                          1,90E+04
 . 140
              520.9
                        . 334
                                  1.90E+04
                                                                        . 165
                                                                                     521.5
                                                                                                          1.91E+04
                                                                                               . 338
                        .338
 . 165
             521.5
                                  1.90E+04
                                                                        .317
                                                                                    519.9
                                                                                               . 364
                                                                                                          1.92E+04
 . 317
                        .363
             520.0
                                  1.91E+04
                                                                        . 394
                                                                                    524.2
                                                                                               . 376
                                                                                                          1.94E+04
 . 394
             524.3
                        .376
                                  1.94E+04
                                                                        .470
                                                                                    527.8
                                                                                               . 389
                                                                                                         1.96E+04
 .470
             528.0
                        . 389
                                  1.96E+04
                                                                        .546
                                                                                    529.4
                                                                                               .402
                                                                                                         1.98E+04
                        .402
 .546
             529.7
                                  1.98E+04
                                                                        .622
                                                                                     523.5
                                                                                               .415
                                                                                                         1.95E+04
 .622
             523.6
                        .415
                                  1.95E+04
                                                                        .698
                                                                                    534.7
                                                                                               .429
                                                                                                          2.05E+04
 .698
             535.2
                        .428
                                  2.05E+04
                                                                        .775
                                                                                    533.7
                                                                                                .442
                                                                                                         2.06E+04
 .775
             534.3
                        .442
                                  2.07E+04
                                                                        .851
                                                                                    544.9
                                                                                                .456
                                                                                                         2.16E+04
 .851
                        .456
             545.7
                                  2.18E+04
                                                                        .927
                                                                                    550.6
                                                                                                .471
                                                                                                         2.25E+04
  .927
             551.8
                        .471
                                 2.29E+04
                                                                       1.003
                                                                                    536.2
                                                                                                .485
                                                                                                         2.20E+04
 1.003
             537.4
                        .486
                                  2.25E+04
                                                                       1.067
                                                                                    617.0
                                                                                                         6.36E+04
                                                                                               .509
 1.067
             635.7
                                  7.15E+04
                        .512
                                                                       1.156
                                                                                    680.9
                                                                                               .573
                                                                                                         1.02E+05
 1.156
             722.2
                                  8.38E+04
                        .572
                                                                       1.232
                                                                                    612.4
                                                                                               .626
                                                                                                         5.89E+04
1,232
             630.7
                        .624
                                  7.53E+64
                                                                       1.257
                                                                                    677.4
                                                                                               . 644
                                                                                                        1.01E+05
1.257
             718.9
                        .642
                                  8.97E+C4
                                                                       1.321
                                                                                    791.5
                                                                                               .681
                                                                                                        3.04E+04
1.321
             795.0
                        .676
                                  3.23E+04
                                                                       1.384
                                                                                    845.2
                                                                                               .698
                                                                                                         3.15E+04
1.384
                        .694
             848.8
                                  3.31E+04
                                                                       1,460
                                                                                    882.2
                                                                                               .717
                                                                                                         2.78E+04
                        .715
1.460
             385.1
                                  3.07E+04
                                                                       1.511
                                                                                    895.4
                                                                                               .729
                                                                                                         2.68E+04
1.511
             898.2
                        .728
                                  2.94E+04
                                                                       1.562
                                                                                    889.4
                                                                                               .741
                                                                                                         2.49E+04
 1.562
             891.3
                        .741
                                  2.82E+04
                                                                                               .751
                                                                       1.613
                                                                                    908.8
                                                                                                         2.298+04
1.613
             910.3
                        . 753
                                  2.67E+04
                                                                                               .766
                                                                       1.689
                                                                                    937.5
                                                                                                         2.11E+04
1.689
                        .770
             938.5
                                  2.50E+04
                                                                       1.765
                                                                                    958.0
                                                                                               .779
                                                                                                         1.97E+04
                        .787
1.765
             958.9
                                  2.51E+04
                                                                       1.816
                                                                                    964.0
                                                                                               . 788
                                                                                                         1.89E+04
1.816
             964.5
                        .798
                                  2.28E+04
                                                                                               .797
                                                                       1.867
                                                                                    953.4
                                                                                                         2.20E+04
1.867
             954.7
                        .808
                                  2.56E+04
                                                                       1.918
                                                                                    942.6
                                                                                               .806
                                                                                                         1.96E+04
                        .819
```

1.994

2.070

956.2

272.3

.819

.831

1.90E+04

1.79E+04

INEL POST-CHI EXPERIMENT NO. 91 INEL POST-CHF EXPERIMENT NO. 92 POINT SERIAL NO. 1092.010 (TIME= 256.50 SEC) POINT SERIAL NO. 3091,140 (TIME= 303.50 SEC) 8.13 MPA LOOP PRESSURE(PE-3) 16.06 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURETTE-FCV-1T) 614.1 K 547.0 K 1.204E+06 J/KG 1.598E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 3.57 MPA PRESSURE 3.57 MPA 516.89 K SAT TEMP 516.77 K SAT TEMP MASS FLUX 30.15 KG/SEC-M**2 MASS FLUX 16.77 KG/SEC-M**2 INLET QUALITY .085 INLET QUALITY .311 INLET ENTHALPY 1.598E+06 J/KG INLET ENTHALPY 1.204E+06 J/KG QUENCH FRONT: QUENCH FRONT: .731 M ELEVATION 1,230 M ELEVATION .0050 M/SEC VELOCITY .0060 M/SEC VELOCITY . 166 QUALITY .625 QUALITY NET LHP FOWER TO FLUID 0.0 W NET LHP POWER TO I UID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VALOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (K) (M) 1.841 1.841 714.6 .792 .620 1.232 .501 742.5 .253 .190 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION LEMP ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION XE HEAT FLUX HEAT LOSS (M) (K) W/M**2 W/M##2 (M) (K) W/M##2 W/M##2 .013 522.3 .313 1.91E+04 .013 527.3 .086 1.26E+04 523.6 .051 .319 1.92E+04 .051 530.5 .088 1.23E+04 .321 .063 521.0 1.91E+04 .063 526.3 .089 1.27E+04 .089 526.5 .326 1.91E+04 .089 534.5 .090 1.28E+04 .114 520.9 . 330 1.91E+04 .114 526.9 .092 1.28E+04 . 140 521.0 . 334 1.90E+04 . 140 523.6 .094 1.22E+04 . 165 . 165 521.5 .338 1.91E+04 524.8 .095 1.22E+04 .317 . 104 . 364 519.9 1.92E+04 .317 527.0 1.29E+04 . 194 .376 . 109 524.2 1.94E+04 . 394 536.7 1.30E+04 .470 527.8 . 389 1.96E+04 .470 550.3 . 114 1.46E+04 .546 529.4 .402 1.98E+04 .546 561.9 .120 1.78E+04 .622 523.5 .415 1.95E+04 .622 551.9 . 127 2.02E+04 . 149 .429 .698 534.7 2.05E+04 .698 632.4 9.94E+04 .442 .775 . 188 .775 533.7 2.06E+04 908.7 1.14E+05 .851 544.9 .456 2.16E+04 .851 971.7 .216 3.90E+04 .927 550.6 .471 2.25E+04 .927 990.2 .228 2.40E+04 1.003 536.2 .485 2.20E+04 1.003 992.1 .236 1.99E+04 1.067 617.0 .509 6.36E+04 1.067 920.4 .241 1.55E+04 .573 1.156 680.9 1.02E+05 1.156 958.3 .248 1.47E+04 1.232 612.4 .626 5.89E+04 1.232 951.3 .253 1.45E+04 1.257 677.4 . 644 1.01E+05 1.257 966.4 .255 1.52E+04 1,321 791.5 3.04E+04 959.2 .681 1.321 .260 1.42E+04 3.15E+04 .264 1.384 845.2 .698 1.384 1018.5 1.47E+04 .269 1.460 882.2 .717 2.78E+04 1.461 1033.5 1.34E+04 2.68E+04 1.511 895.4 .729 1.511 1035.9 .272 1.19E+04 . 741 2.49E+04 1.562 889.4 1.562 1036.9 .275 1.25E+04 .751 1.613 908.8 2.29E+04 1042.3 1.613 .278 1.16E+04 1.689 937.5 .766 2.11E+04 1045.8 1.689 .282 9.89E+03 1.765 958.0 .779 1.97E+04 1.765 1042.7 .286 8.04E+03 1.816 964.0 .788 1.89E+04 1.816 1035.8 .287 6.17E+03 1.867 953.4 .797 2.20E+04 1.867 1014.0 .289 5.55E+03

1.918

1.994

2.070

980.8

961.5

945.6

.290

.292

.293

4.89E+03

3.70E+03

2.42E+03

.806

.819

.831

942.6

956.2

972.3

1.918

1.994

2.070

1.96E+04

1.90E+04

1.79E+04

PRESSURE 3.57 MPA SAT TEMP 516.89 K MASS FLUX 30.15 KG/SEC-M**2 INLET QUALITY .085 INLET ENTHALPY 1.204E+06 J/KG QUENCH FRONT:

ELEVATION .731 M VELOCITY .0060 M/SEC QUALITY . 166 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 .805 905.4 .274 .177

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION HEAT LOSS TEMP XE HEAT FLUX (M) W/M##2 W/M##2 (K) .013 527.3 .086 1.26E+04 .051 530.5 .088 1.23E+04 .063 526.3 .089 1.27E+04 .089 534.5 .090 1.28E+04 . 114 526.9 .092 1.28E+04 . 140 523.6 .094 1.22E+04 . 165 524.8 .095 1.22E+04 .317 527.0 . 104 1.29E+04 . 394 536.7 . 109 1.30E+04 .114 470 550.3 1.46E+04 . 120 .546 561.9 1.78E+04 .622 551.9 .127 2.02E+04 .698 632.4 9.948+04 . 149 .775 . 188 908.7 1.14E+05 .216 .851 971.7 3.90E+04 .927 990.2 .228 2.40E+04 1.003 992.1 .236 1.99E+04 .241 1.067 920.4 1.55E+04 1.156 958.3 .248 1.47E+04 1.232 951.3 .253 1.45E+04 1.257 966.4 .255 1.52E+04 1.321 959.2 .260 1.42E+04 1.384 1018.5 .264 1.47E+04 1.461 1033.5 .269 1.34E+04 1.511 1035.9 .272 1.19E+04 1036.9 1.562 .275 1.25E+04 1.613 1042.3 .278 1.16E+04 .282 1.689 1045.8 9.89E+03 1.765 1042.7 .286 8.04E+03 1035.8 .287 1.816

.289

.290

.292

.293

6.17E+03

5.55E+03

4.89E+03

3.70E+03

2.42E+03

POINT SERIAL NO. 1092.020 (TIME= 263.50 SEC)

LOOP PRESSURE(PE-3) 7.95 MPA FCV TEMPERATURE (TE-FCV-1T) 547.4 K LHP INLET ENTHALPY 1.206E+06 J/KG TEST SECTION: 3.57 MPA PRESSURE SAT TEMP 516.81 K MASS FLUX 30.18 KG/SEC-M##2 INLET QUALITY .086 INLET ENTHALPY 1.206E+06 J/KG QUENCH FRONT: ELEVATION .784 M VELOCITY .0077 M/SEC .172 QUALITY

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

0.0 W

1 232 - 668 727 0 269 206

NET LHP POWER TO FLUID

1.232	. 448	727.0 .269	. 206	
WALL TEMPER	ATURE MEA	SUREMENT LOCA	TION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	526.9	.087	1.27E+04	
.051	530.2	.090	1.28E+04	
.063	525.9	,090	1.25E+04	
.089	533.7	.092	1.31E+04	
. 114	526.1	. 094	1.30E+04	
. 140	523.3	.095	1.26E+04	
. 165	524.5	.097	1.26E+04	
. 317	526.2	. 106	1.29E+04	
. 394	535.7	. 111	1.33£+04	
.470	548.5	.116	1.40E+04	
.546	557.2	. 122	1.69E+04	
.622	546.1	. 128	1.77E+04	
.698	598.4	. 138	3.91E+04	
.775	692.3	. 167	1.18E+05	
.851	920.3	.209	1.06E+05	
.927	973.3	.236	4.46E+04	
1.003	983.4	. 249	2.67E+04	
1.067	917.1	.256	1.77E+04	
1.156	955.6	.763	1.63E+04	
1.232	948.6	.269	1.58E+04	
1.257	963.2	.271	1.75E+04	
1.321	956.8	.277	1.63E+04	
1.384	1015.6	.282	1.67E+04	
1.461	1031.6	.288	1.53E+04	
1.511	1034.5	.291	1.39E+04	
1.562	1035.7	. 295	1.46E+04	
1.613	1041.6	. 298	1.40E+04	
1.689	1046.4	. 303	1.21E+04	
1.765	1044.9	.307	1.01E+04	
1.816	1038.7	. 309	8.18E+03	
1.867	1018.2	.311	7.3 E+03	
1.918	985.4	.313	7.14E+03	
1.994	967.5	.315	4.87E+03	
2.070	952.7	.317	3.52E+03	

1.867

1.918

1.994

2.070

1014.0

980.8

961.5

945.6

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INEL POST-CHE EXPERIMENT NO. 92
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INEL POST-CHE EXPERIMENT NO. 92

POINT SERIAL NO. 2092.020	(TIME= 263.50 SEC)	POINT SERIAL NO. 1092.030	
LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	7.95 MPA 547.4 K 1.206E+06 J/KG 3.57 MPA 516.81 K 30.18 KG/SEC-M**2 .086 1.206E+06 J/KG .784 M .0077 M/SEC .172	LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAI TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	7.97 MPA 547.5 K 1.207E+06 J/KG 3.57 MPA 516.84 K 30.33 KG/SEC-M**2 .087 1.207E+06 J/KG .842 M .0069 M/SEC .180 0.0 W
VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K)	LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K)	LOCATION INFORMATION
1.537 .753 878.6	.293 .194	1.232 .390 714.3	.255 .199
WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/M**2 W/M**2	1.232 .390 714.3 WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/M**2 W/M**2
.013	1.28E+04 1.25E+04 1.31E+04 1.30E+04 1.30E+04 1.26E+04 1.26E+04 1.29E+04 1.33E+04 1.33E+04 1.33E+04 1.33E+04 1.33E+04 1.33E+04 1.33E+04 1.37E+04 1.33E+05 1.06E+05 4.46E+04 1.77E+04 1.33E+04 1.53E+04 1.53E+04 1.53E+04 1.39E+04	.013 526.5 .088 .051 529.5 .090 .063 525.5 .091 .089 533.1 .092 .114 525.5 .094 .140 523.0 .095 .165 524.1 .097 .317 525.6 .106 .394 534.4 .111 .470 546.3 .116 .546 552.9 .122 .622 541.6 .128 .698 581.1 .135 .775 614.7 .152 .698 581.1 .135 .770.0 .184 .927 934.0 .216 .227 934.0 .216 .2	1.28E+04 1.28E+04 1.28E+04 1.28E+04 1.24E+04 1.25E+04 1.25E+04 1.25E+04 1.35E+04 1.43E+04 1.61E+04 1.61E+04 2.69E+04 6.16E+04 1.15E+05 5.79E+04 3.34E+04 1.77E+04 1.71E+04 1.90E+04 1.54E+04 1.54E+04 1.54E+04 1.54E+04 1.54E+04 1.50E+04 1.50E+04 1.20E+04

2.070

973.8

960.3

.302

. 303

5.28E+03

3.92E+03

```
POINT SERIAL NO. 2092.030 (TIME= 271.50 SEC)
                                                                  POINT SERIAL NO. 1092.040 (TIME= 286.50 SEC)
LOOP PRESSURE(PE-3)
                                7.97 MPA
                                                                  LOOP PRESSURE(PE-31
                                                                                                  7.98 MPA
                           547.5 K
                                                                                              547.1 K
FCV TEMPERATURE ( 1E-FCV-11)
                                                                  FCV TEMPERATURE (TE-FCV-11)
LHP INLET ENTHALPY 1.207E+06 J/KG
                                                                  LHP INLET ENTHALPY
                                                                                             1.205E+06 J/KG
TEST SECTION:
                                                                  TEST SECTION:
    PRESSURE
                          516.84 K
                                3.57 MPA
                                                                      PRESSURE
                                                                                                 3.58 MPA
                                                                                             3.58 MP/
516.97 K
    SAT TEMP
                                                                      SAT TEMP
                                                                                              30.63 KG/SEC-M**2
                                                                      MASS FLUX
    MASS FLUX
                            30.33 KG/SEC-M**2
.087
    INLET QUALITY
                                                                      INLET QUALITY
                                                                                                   .085
    INLET ENTHALPY
                                                                                      1.205E+06 J/KG
                        1.207E+06 J/KG
                                                                       INLET ENTHALPY
QUENCH FRONT:
                                                                  QUENCH FRONT:
    ELEVATION
                                .842 M
                                                                      ELEVATION
                                                                                                   .913 M
    VELOCITY
                               .0069 M/SEC
                                                                      VELOCITY
                                                                                                 .0029 M/SEC
                               -180
    QUALITY
                                                                      QUALITY
                                                                                                  . 164
NET LHP POWER TO FLUID
                                0.0 W
                                                                  NET LHP POWER TO FLUID
                                                                                                   0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                 TV
                         XE XA
                                                                  ELEVATION DZQF IV XE XA
            (M)
 (%)
                    (K)
                                                                   (M)
                                                                              (M)
                                                                                       (K)
1.537 .694 868.2 .279 .186
                                                                  1.232
                                                                              .319 681.8 .217 .175
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP
                    XE HEAT FLUX HEAT LOSS
                                                                  ELEVATION TEMP XE HEAT FLUX
                                                                                                             HEAT LOSS
 (M)
                                W/M##2
             (K)
                                              W/M##2
                                                                   (M)
                                                                                (K)
                                                                                                   W/M**2
                                                                                                                 W/M##2
 .013
            526.5
                     .088
                               1.26E+04
                                                                               525.9
                                                                    .013
                                                                                         .086
                                                                                                  1.26E+04
 .051
            529.5
                      .090
                               1.28E+04
                                                                   .051
                                                                               528.8
                                                                                         .089
                                                                                                   1.27E+04
             525.5
                      .091
 .063
                                1.25E+04
                                                                               524.9
                                                                    .063
                                                                                         .089
                                                                                                   1.27£+04
  .089
             533.1
                      .092
                                1.28E+04
                                                                    .089
                                                                               532.1
                                                                                         .091
                                                                                                   1.29E+04
            525.5
 .114
                       .094
                                1.28E+04
                                                                   . 114
                                                                               524.7
                                                                                         -092
                                                                                                   1.27E+04
  . 140
             523.0
                              1.24E+04
                       .095
                                                                   . 140
                                                                                         .094
                                                                                               1.24E+04
                                                                               522.7
 . 165
                       .097
             524.1
                              1.25E+04
                                                                                         .095
                                                                    . 165
                                                                               523.8
                                                                                                  1.25E+04
                      .106
 .317
            525.6
                              1.28E+04
1.35E+04
                                                                                         .105
                                                                    .317
                                                                               524.5
                                                                                                  1.28E+04
 . 394
                      .111
            534.4
                                                                                         .109
                                                                    . 394
                                                                               531.9
                                                                                                   1.36E+04
 .470
                               1.43E+04
            546.3
                       .116
                                                                    .470
                                                                               542.0
                                                                                         . 114
                                                                                                  1.44E+04
 .546
            552.9
                       . 122
                               1.61E+04
                                                                    .546
                                                                               546.5
                                                                                         . 120
                                                                                                  1.51E+04
 .622
            541.6
                             1.61E+04
                       . 128
                                                                               535.8
                                                                    .622
                                                                                         . 125
                                                                                                  1.46E+04
 .698
            581.1
                       . 135
                               2.69E+04
                                                                                         .131
                                                                   .698
                                                                                                 1.88E+04
                                                                               562.8
                      . 152
 .775
            614.7
                               6.16E+04
                                                                   .775
                                                                                         .138
                                                                               564.0
                                                                                               2.07E+04
 .851
                       . 184
                              1,15E+05
            770.0
                                                                    . 651
                                                                               584.6
                                                                                         . 149
                                                                                                  3.93E+04
  .927
            934.0
                       .216
                               5.79E+04
                                                                   .927
                                                                               761.2
                                                                                         . 168
                                                                                                  6.25E+04
 1.003
            967.8
                       .232
                                3.34E+04
                                                                   1.003
                                                                                         . 188
                                                                               920.5
                                                                                                 5.10E+04
                      .240
 1.067
            911.0
                                2.0hE+04
                                                                                         .200
                                                                                                 2.51E+04
                                                                   1.067
                                                                               894.3
 1,156
            951.1
                       .249
                                1.77E+04
                                                                                         .209
                                                                   1.156
                                                                               940.2
                                                                                                 2.02E+04
1.92E+04
 1.232
            944.2
                       .255
                               1.71E+04
                                                                   1.232
                                                                               933.7
                                                                                         .217
1.257
            957.9
                       .257
                               1.90E+04
                                                                   1.257
                                                                               946.0
                                                                                         .219
                                                                                                   2.08E+04
1,321
            953.2
                              1.68E+04
                      .263
                                                                   1.321
                                                                               945.5
                                                                                         .225
                                                                                                  1.77E+04
 1.384
                      .268
                             1.68E+04
            1011.9
                                                                                         .230
                                                                   1.384
                                                                              1004.8
                                                                                                  1.75E+04
 1.461
            1029.1
                      .274
                                1.54E+04
                                                                   1.460
                                                                                         .236
                                                                              1024.1
                                                                                                  1.61E+04
 1.511
            1032.7
                       .277
                                1. 3E+04
                                                                   1.511
                                                                              1028.8
                                                                                         .240
                                                                                                  1.47E+04
 1.562
            1033.7
                      .281
                              1.50E+04
                                                                   1,562
                                                                              1029.3
                                                                                         .244
                                                                                               1.58E+04
1.613
            1040.3
                      .284
                                1.40E+04
                                                                   1.613
                                                                              1037.6
                                                                                         .247
                                                                                                  1.45E+04
1.689
            1046.8
                      .289
                              1.20E+04
                                                                   1.689
                                                                              1047.4
                                                                                         . 252
                                                                                                  1,24E+04
1.765
           1046.8
                      .293
                              1.01E+04
                                                                                         .256
                                                                   1.765
                                                                              1050.3
                                                                                                  1.06E+04
1.816
            1041.5
                      .295
                              8.32E+03
                                                                   1.816
                                                                              1046.4
                                                                                         .259
                                                                                                   9.00E+03
1.867
            1022.1
                      .297
                               8.01E+03
                                                                   1.867
                                                                              1028.3
                                                                                         .261
                                                                                                   9.11E+03
1,918
            989.9
                      .299
                               7.38E+03
                                                                   1.918
                                                                              997.4
                                                                                         .263
                                                                                                   8.28E+03
```

1.994

2.070

984.9

973.6

.266

.267

6.04E+03

4.94E+03

.234

991.5

2.070

5.86E+03

5.01E+03

2.070

974.4

.266

4.85E+03

```
POINT SERIAL NO. 2092.040 (TIME= 287.50 SEC)
                                                                        POINT SERIAL NO. 1092.050 (TIME= 308.50 SEC)
LOOP PRESSURE(PE-3)
                                   8.00 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                            7.98 MPA
FCV TEMPERATURE(TE-FCV-1T)
                               547.1 K
                                                                        FCV TEMPERATURE (TE-FCV-1T)
                                                                                                         546.2 K
LHP INLET ENTHALPY
                              1.205E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                      1.200E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                                                                                           3.57 MPA
                                  3.58 MPA
                                                                             PRESSURE
                                                                                                        516.86 K
     SAT TEMP
                                516.96 K
                                                                             SAT TEMP
                                30.67 KG/SEC-M**2
     MASS FLUX
                                                                             MASS FLUX
                                                                                                         30.87 KG/SEC-M**2
     INLET QUALITY
                                   .085
                                                                             INLET QUALITY
                                                                                                            .083
     INLET ENTHALPY
                                                                                                       1.200E+06 J/KG
                              1.205E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
                                   .915 M
    ELEVATION
                                                                             ELEVATION
                                                                                                            .972 M
                                                                                                           .0019 M/SEC
     VELOCITY
                                  .0029 M/SEC
                                                                             VELOCITY
                                  .163
                                                                                                           . 155
     QUALITY
                                                                             QUALITY
NET LHP POWER TO FLUID
                                                                        NET LHP POWER TO FLUID
                                   0.0 W
                                                                                                            0.6 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZOF
                     IV
                             XE XA
                                                                        ELEVATION DZQF
                                                                                             IV
                                                                                                      XE XA
 (M)
            (M)
                      (K)
                                                                         (M)
                                                                                     (M)
                                                                                              (K)
1.537
            .621
                                                                         1.232
                                                                                     .260
                     864.5 .240 .163
                                                                                             649.0 .187 .157
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                          XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                                                        ELEVATION
                                                                                      TEMP
                                                                                                  XE
                                                                                                            HEAT FLUX
                                                                                                                          HEAT LOSS
                                    W/M##2
                                                                                                             W/M##2
                                                                                                                           W/M##2
 (M)
              (K)
                                                  W/M##2
                                                                          (M)
                                                                                       (K)
                         .086
                                   1.26E+04
                                                                          .013
                                                                                      525.0
                                                                                                 .084
 .013
              525.8
                                                                                                            1.25E+04
 .051
              528.7
                         .088
                                   1.27E+C"
                                                                          .051
                                                                                      527.7
                                                                                                  .086
                                                                                                            1.26E+04
 .063
              524.8
                         .089
                                   1.26E+04
                                                                                      524.0
                                                                                                  .087
                                                                                                            1.25E+04
                                                                          .063
 .089
              532.1
                         .091
                                   1.29E+04
                                                                          .089
                                                                                      530.7
                                                                                                  .088
                                                                                                            1.27E+04
 . 114
                                   1.27E+04
              524.6
                         .092
                                                                          . 114
                                                                                      523.5
                                                                                                  .090
                                                                                                            1.27E+04
                         .094
 . 140
              522.6
                                   1.25E+04
                                                                          . 140
                                                                                      522.2
                                                                                                 .091
                                                                                                            1.24E+04
 . 165
              523.7
                         .095
                                   1.25E+04
                                                                          . 165
                                                                                      523.2
                                                                                                 .093
                                                                                                            1.25E+04
 . 317
              524.5
                        .104
                                   1.28E+04
                                                                          .317
                                                                                      523.2
                                                                                                 .102
                                                                                                            1.26E+04
                                                                                                 . 106
 . 394
              531.7
                         . 109
                                   1.35E+04
                                                                          . 394
                                                                                      528.9
                                                                                                            1.31E+04
                        .114
 . 470
              541.8
                                   1.43E+04
                                                                          .470
                                                                                      537.2
                                                                                                 .111
                                                                                                            1.37E+04
 .546
                        .120
              546.1
                                   1.51E+04
                                                                          .546
                                                                                      540.0
                                                                                                 .116
                                                                                                           1.41E+04
                        . 125
 .622
              535.5
                                   1.45E+04
                                                                          .622
                                                                                      530.8
                                                                                                 .121
                                                                                                            1.37E+04
 . 698
              562.0
                         .131
                                   1.85E+04
                                                                          .698
                                                                                      549.7
                                                                                                 . 126
                                                                                                            1.55E+04
 .775
              563.0
                         .138
                                   2.03E+04
                                                                          .775
                                                                                      548.3
                                                                                                 .132
                                                                                                            1.50E+04
 .851
              582.2
                         . 148
                                   3.35E+04
                                                                          .851
                                                                                      558.8
                                                                                                 .138
                                                                                                            1.75E+04
                         . 165
  .927
              721.5
                                   6.32E+04
                                                                          .927
                                                                                      581.6
                                                                                                 . 147
                                                                                                            3.45E+04
                                                                                                 .160
 1,003
              916.2
                         . 186
                                   5.17E+04
                                                                         1.003
                                                                                      824.8
                                                                                                            3.43E+04
 1.067
              892.9
                         .198
                                   2.55E+04
                                                                         1.067
                                                                                      858.9
                                                                                                 . 169
                                                                                                            2.68E+04
 1.156
              939.3
                         .207
                                   2.04E+04
                                                                                                 .179
                                                                         1.156
                                                                                      917.4
                                                                                                            2.31E+04
 1.232
              932.9
                         .215
                                   1.93E+04
                                                                                                 .187
                                                                                                            2.06E+04
                                                                         1.232
                                                                                      913.8
                                                                                                 . 190
1.257
              945.1
                         .217
                                   2.09E+04
                                                                                      925.3
                                                                         1.257
                                                                                                            2.10E+04
1.321
             945.0
                         .223
                                   1.78E+04
                                                                         1.321
                                                                                      933.1
                                                                                                 . 196
                                                                                                            1.73E+04
1.384
             1004.3
                         .228
                                   1.75E+04
                                                                         1.384
                                                                                      993.7
                                                                                                 .201
                                                                                                            1.65E+04
                        .234
             1023.7
                                   1.62E+04
1.460
                                                                                     1016.3
                                                                         1.460
                                                                                                 .206
                                                                                                            1.52E+04
1.511
             1028.5
                        .238
                                   1.47E+04
                                                                         1.511
                                                                                     1022.4
                                                                                                 .210
                                                                                                            1.38E+04
             1028.9
1.562
                         .242
                                   1.58E+04
                                                                         1.562
                                                                                     1023.4
                                                                                                 .213
                                                                                                            1.38E+04
1.613
             1037.4
                         .245
                                   1.46E+04
                                                                         1.613
                                                                                     1034.7
                                                                                                 .216
                                                                                                           1.26E+04
                         .250
1.689
             1047.4
                                   1.25E+04
                                                                         1.689
                                                                                     1048.9
                                                                                                 .220
                                                                                                           1.09E+04
1.765
             1050.5
                         . 254
                                   1.07E+04
                                                                                                 .224
                                                                                                           9.38E+03
                                                                         1.765
                                                                                     1055.6
                                                                                                 .226
             1046.7
                                   9.06E+03
1.816
                         .257
                                                                         1.816
                                                                                     1053.4
                                                                                                           8.02E+03
                         .259
             1028.7
1.867
                                   9.16E+03
                                                                         1.867
                                                                                     1036.6
                                                                                                 .228
                                                                                                           8.26E+03
                         .261
             997.9
                                   8.32E+03
1.918
                                                                                                 .230
                                                                         1.918
                                                                                     1007.9
                                                                                                           7.51E+03
1.994
             985.6
                         .264
                                   6.07E+03
                                                                         1.994
                                                                                     1000.2
```

```
POINT SERIAL NO. 2092.050 (TIME= 308.50 SEC)
LOOP PRESSURE(PE-3)
                                7.98 MPA
FCV TEMPERATURE (TE-FCV-1T)
                             546.2 K
LHP INLET ENTHALPY
                           1.200E+06 J/KG
TEST SECTION:
    PRESSURE
                               3.57 MPA
                           516.86 K
    SAT TEMP
    MASS FLUX
                            30.87 KG/SEC-M**2
    INLET QUALITY
                                .083
    INLET ENTHALPY
                           1.200E+06 J/KG
QUENCH FRONT:
    ELEVATION
                                 .972 M
    VELOCITY
                               .0019 M/SEC
    QUALITY
                               . 155
NET LHP POWER TO FLUID
                                0.0 W
```

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.537 .565 867.1 .211 .142

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	M/W##5
.013	525.0	.084	1.25E+04	
.051	527.7	.086	1.26E+04	
.063	524.0	.087	1.25E+04	
.089	530.7	.088	1.27E+04	
. 114	523.5	.090	1.27E+04	
.140	522.2	.091	1.24E+04	
. 165	523.2	.093	1.25E+04	
.317	523.2	. 102	1.26E+04	
.394	528.9	. 106	1.31E+04	
.470	537.2	,111	1.37E+04	
.546	540.0	.116	1.41E+04	
.622	530.8	. 121	1.37E+04	
.698	549.7	. 126	1.55E+04	
.775	548.3	. 132	1.60E+04	
.851	558.8	.138	1.758+04	
.927	581.6	. 147	3.45E+04	
1.003	824.8	. 160	3.43E+04	
1.067	858.9	. 169	2.68E+04	
1.156	917.4	.179	2.31E+04	
1.232	913.8	. 187	2.06E+04	
1.257	925.3	. 190	2.10E+04	
1.321	933.1	. 196	1.73E+04	
1.384	993.7	.201	1.65E+04	
1.460	1016.3	.206	1.52E+04	
1.511	1022.4	.210	1.38E+04	
1.562	1023.4	.213	1.38E+04	
1.613	1034.7	.216	1.26E+04	
1.689	1048.9	.220	1.09E+04	
1.765	1055.6	.224	9.38E+03	
1.816	1053.4	.226		
1.867	1036.6		8.02E+03	
1.918	1007.9	.228	8.26E+03	
1.994	1000.2	.232	7.51E+03	
2.070	991.5	.234	5.86E+03	
2.010	991.3	.234	5.01E+03	

LOOP PRESSURE(PE-3)	8.00	MPA
FCV TEMPERATURE (TE-FCV-11)	545.0	
LHP INLET ENTHALPY	1.194E+06	J/KG
TEST SECTION:		
PRESSURE	3.58	MPA
SAT TEMP	516.95	
MASS FLUX		KG/SEC-M**2
INLET QUALITY	.079	
INLET ENTHALPY	1.194E+06	
QUENCH FRONT:		
ELEVATION	1.018	М
VELOCITY		M/SEC
QUALITY	,148	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.232 .214 616.9 .174 .150 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) W/M##2 (K) W/M##2 .080 .013 524.3 1.25E+04 .051 526.8 .082 1.25E+04 .063 523.3 .083 1.24E+04 .089 529.6 .084 1.26E+04 .114 .086 522.7 1.25E+04 .140 521.8 .087 1.24E+04 . 165 522.7 .089 1.24E+04 522.4 .317 .098 1.25E+04 .394 . 102 1.29E+04 526.8 .470 533.5 .107 1.33E+04 .112 .546 535.4 1.35E+04 .622 527.6 .117 1.31E+04 .698 542.0 . 122 1.43E+04 .127 .775 539.5 1.43E+04 .132 .851 546.9 1.51E+04 .927 559.9 .138 1.67E+04 1.003 592.9 . 146 2.76E+04 . 154 1.067 823.5 3.10E+04 1.156 888.5 . 166 2.31E+04 . 174 1.232 891.0 2.03E+04 1.257 904.8 .176 2.06E+04 1.321 921.2 . 182 1.77E+04 1.384 983.4 . 187 1.74E+04 . 193 1.460 1009.2 1.62E+04 1.511 1017.2 .197 1.48E+94 1.562 1020.9 .200 1.44E+04 1.613 1035.0 .204 1.34E+04 .208 1.689 1053.1 1.19E+04 1.765 1063.1 .212 1.06E+04 1.816 1062.4 .215 9.21E+03 1.867 1047.8 .217 8.72E+03 1.918 1020.3 .219 8.53E+03 1.994 6.91E+03 1016.4 .222 2.070 1009.8 .224 6.02E+03

POINT SERIAL NO. 1092.070 (TIME= 348.50 SEC)

LOOP PRESSURE(PE-3)

LHP INLET ENTHALPY

PRESSURE

SAT TEMP

MASS FLUX

ELEVATION

VELOCITY

QUALITY

INLET QUALITY

NET LHP POWER TO FLUID

INLET ENTHALPY

TEST SECTION:

QUENCH FRONT:

FCV TEMPERATURE (TE-FCV-1T)

8.01 MPA

3.58 MPA

31.64 KG/SEC-M**2

LOSS

545.7 K

1.198E+06 J/KG

516.93 K

.081

1.198E+06 J/KG

1.074 M

. 161

0.0 W

.0053 M/SEC

VAPOR TEMPE ELEVATION (M)	RATURE ME DZQF (M)	ASUREMENT TV (K)	LOCATION INFORMA	TION
1.232	. 158	596.8	. 196 . 175	
WALL TEMPER	ATURE MEA	SHREMENT I	LOCATION INFORMAT	LON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOS
(M)	(K)		W/M**2	M/M##2
.013	523.9	.082	1.26E+04	
.051	526.5	.084	1.26E+04	
.063	522.9	.085	1.26E+04	
.089	529.0	.086	1.18E+04	
.114	522.2	.088	1.40E+04	
140	521.6	71 (00.70)		
. 165	522.6	.090	1.27E+04	
.317	521.9		1.34E+04	
.394		. 100	1.32E+04	
.470	525.7	. 105	1.35E+04	
	531.6	, 110	1.38E+04	
.546	533.2	. 115	1.20E+04	
.622	526.1	. 119	1.34E+04	
.698	538.4	. 124	1.43E+04	
.775	535.9	. 129	1.42E+04	
.851	541.6	. 134	1.51E+04	
.927	552.1	. 139	1.55E+04	
1.003	544.1	. 145	1.80E+04	
1.067	743.6	. 159	7.87E+04	
1.156	864.8	. 184	4.28E+04	
1.232	875.2	. 196	2.25E+04	
1.257	888.8	. 199	2.57E+04	
1.321	910.5	.206	2.09E+04	
1.384	972.9	.212	2.16E+04	
1.460	1000.4	.220	2.28E+04	
1.511	1009.6	.225	1.90E+04	
1.562	1014.7	.229	1.97E+04	
1.613	1030.2	.234	1.96E+04	
1.689	1051.0	.240	1.81E+04	
1.765	1063.4	.246	1.63E+04	
1.816	1063.4	.250	1.52E+04	
1.867	1051.7	.253	1.36E+04	
1.918	1024.4	.257	1.43E+04	
1.994	1023.9	.261	1.13E+04	
2.070	1019.2	.265	9.56E+03	
			J. JUL. 03	

	RATURE MEASU	REMENT LO	CATION INFORMATI
LEVATION	TEMP	XE	HEAT FLUX
(M)	(K)		M/W**5
.013	524.3	.080	1.25E+04
.051	526.8	.082	1.25E+04
.063	523.3	.083	1.24E+04
.089	529.6	.084	1.26E+04
. 114	522.7	.086	1.25E+04
. 140	521.8	.087	1.24E+04
. 165	522.7	.089	1.24E+04
.317	522.4	.098	1.25E+04
. 394	526.8	. 102	1.29E+04
.470	533.5	. 107	1.33E+04
.546	535.4	.112	1.35E+04
.622	527.6	. 117	1.31E+04
.698	542.0	. 122	1.43E+04
.775	539.5	. 127	1.43E+04
.851	546.9	. 132	1.51E+04
.927	559.9	. 138	1.67E+04
1.003	592.9	. 146	2.76E+04
1.067	823.5	. 154	3.10E+04
1.156	888.5	. 166	2.31E+04
1.232	891.0	. 174	2.03E+04
1.257	904.8	. 176	2.06E+04
1.321	921.2	. 182	1.77E+04
1.384	983.4	. 187	1.74E+04
1.460	1009.2	. 193	1.62E+04
1.511	1017.2	. 197	1.48E+04
1.562	1020.9	.200	1.44E+04
1.613	1035.0	.204	1.34E+04
1 689	1053.1	.208	1.19E+04
1.755	1063.1	.212	1.06E+04
1.816	1062.4	.215	9.21E+03
1.867	1047.8	.217	8.72E+03
1.918	1020.3	.219	8.53E+03
1.994	1016.4	.222	6.91E+03
2.070	1009.8	.224	6.02E+03

```
POINT SERIAL NO. 2092.071 (TIME= 348.50 SEC)
                                                                    POINT SERIAL NO. 3092.071 (TIME= 348.50 SEC)
(INFERRED VAPOR TEMP)
                                                                    (INFERRED VAPOR TEMP)
                           8.01 MPA
544.1 K
LOOP PRESSURE (PE-3)
                                                                    LOOP PRESSURE(PE-3)
                                                                                                     8.01 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                                                                                 544.1 K
                                                                    FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY
                          1.190E+06 J/KG
                                                                    LHP INLET ENTHALPY
                                                                                               1.190E+06 J/KG
TEST SECTION:
                                                                    TEST SECTION:
    PRESSURE
                               3.58 MPA
                                                                        PRESSURE
                                                                                                    3.58 MPA
    SAT TEMP
                             516.93 K
                                                                        SAT TEMP
                                                                                                516.93 K
                                                                        MASS FLUX
                            31.64 KG/SEC-M**2
.077
                                                                                                31.64 KG/SEC-M*#2
    MASS FLUX
    INLET QUALITY
                                                                        INLET QUALITY
                                                                                                    .077
    INLET ENTHALPY
                           1.190E+06 J/KG
                                                                        INLET ENTHALPY
                                                                                               1.190E+06 J/KG
QUENCH FRONT:
                                                                    QUENCH FRONT:
    ELEVATION
                               1.074 M
                                                                        ELEVATION
                                                                                                    1.074 M
    VELOCITY
                               .0053 M/SEC
                                                                        VELOCITY
                                                                                                     .0053 M/SEC
    QUALITY
                               . 154
                                                                                                    . 154
                                                                        QUALITY
NET LHP POWER TO FLUID
                                 0.0 W
                                                                    NET LHP POWER TO FLUID
                                                                                                      0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                    (INFERRED VAPOR TEMP)
ELEVATION DZQF
                            XE XA
                                                                    ELEVATION DZQF
                                                                                                 XE
                                                                                                      XA
 (M)
            (M)
                     (K)
                                                                    (14)
                                                                                (M)
                                                                                         (K)
1.537
            .463
                   810.0 .216 .152
                                                                    1.841
                                                                                .768
                                                                                        925.0 .239 .152
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                    XE HEAT FLUX HEAT LOSS
                                                                    ELEVALION
                                                                                 TEMP
                                                                                        XE HEAT FLUX
                                                                                                                  HEAT LOSS
 (M)
             (K)
                                 W/M##2
                                               M/M##5
                                                                    (M)
                                                                                 (K)
                                                                                                      W/M##2
                                                                                                                    W/M##2
 .013
             523.9
                       .077
                                 1.25E+04
                                                                                           .077
                                                                     .013
                                                                                 523.9
                                                                                                     1.25E+04
 .051
             526.4
                       .080
                                 1.25[+04
                                                                      .051
                                                                                 526.4
                                                                                            .080
                                                                                                     1.25E+04
 .063
             522.8
                       .080
                                 1.25E+04
                                                                      .063
                                                                                 522.8
                                                                                            .080
                                                                                                     1.25E+04
 .089
             529.1
                       .082
                                 1.26E+04
                                                                     .089
                                                                                 529.1
                                                                                            .082
                                                                                                     1,26E+04
  . 114
             522.3
                       .083
                                1.26E+04
                                                                     .114
                                                                                 522.3
                                                                                            .083
                                                                                                     1.26E+04
 . 140
             521.6
                       .085
                              1.25E+04
                                                                      . 140
                                                                                 521.6
                                                                                            .085
                                                                                                     1.25E+04
                              1.24E+04
1.25E+04
 . 165
             522.5
                       .086
                                                                     . 165
                                                                                 522.5
                                                                                                      1.24E+04
                                                                                            .086
 .317
             521.9
                       .095
                                                                     .317
                                                                                 521.9
                                                                                            .095
                                                                                                     1.25E+04
                       .099
 . 394
             525.7
                                 1.28£+04
                                                                     . 394
                                                                                 525.7
                                                                                            .099
                                                                                                     1.28F+04
                       .104
 .470
             531.6
                              1.32E+04
                                                                                            . 104
                                                                      .470
                                                                                 531.6
                                                                                                     1.32E+04
 .546
             533.2
                       .105
                              1.34£+04
                                                                                            . 109
                                                                      .546
                                                                                 533.2
                                                                                                     1.34E+04
                       .113
 .622
             526.1
                              1.30E+04
                                                                                            .113
                                                                     .622
                                                                                 526.1
                                                                                                     1.30E+04
 .698
             538.4
                       .118
                              1.38E+04
                                                                     .698
                                                                                 538.4
                                                                                            .118
                                                                                                     1.38E+04
                             1.38E+04
1.44E+04
 .775
             535.9
                       .123
                                                                     .775
                                                                                 535.9
                                                                                            . 123
                                                                                                     1.38E+04
                       .128
 .851
             541.8
                                                                      .851
                                                                                 541.8
                                                                                            . 128
                                                                                                    1.44E+04
                       . 133
 .927
             552.3
                                                                                           . 133
                                                                      .927
                                                                                 552.3
                                                                                                    1.54E+04
                              1.91E+04
 1.003
             545.1
                       .139
                                                                     1.003
                                                                                 545.1
                                                                                                     1.91E+04
                                                                                            . 139
 1.067
             744.8
                       . 152
                               6.91E+04
                                                                     1.067
                                                                                 744.8
                                                                                            . 152
                                                                                                     6.91E+04
                               4.25E+04
1.156
                       .175
             859.0
                                                                     1.156
                                                                                 859.0
                                                                                           . 175
                                                                                                     4.25E+04
1.232
             874.0
                       .187
                               2.40E+04
                                                                     1,232
                                                                                           - 187
                                                                                 874.0
                                                                                                     2.40E+04
1.257
             887.2
                       .189
                               2.69E+04
                                                                                           . 189
                                                                     1.257
                                                                                 887.2
                                                                                                     2.69E+04
1.321
             909.8
                       . 196
                                 2.09E+04
                                                                     1.321
                                                                                            . 196
                                                                                 909.8
                                                                                                     2.09E+04
1.384
             972.4
                       .203
                                 2.09E+04
                                                                     1.384
                                                                                 972.4
                                                                                            .203
                                                                                                     2.09E+04
1.460
            1000,1
                       .210
                                1.96E+04
                                                                     1.460
                                                                                1000.1
                                                                                            .210
                                                                                                     1.96E+04
1.511
            1009.3
                       .214
                                1.82E+04
                                                                    1.511
                                                                                1009.3
                                                                                            .214
                                                                                                     1.82E+04
1.562
            1014.3
                       .218
                                1.87E+04
                                                                    1.562
                                                                                1014.3
                                                                                            .218
                                                                                                     1.87E+04
1.613
            1029.7
                       .223
                                 1.81E+04
                                                                    1.613
                                                                                1029.7
                                                                                            .223
                                                                                                     1.81E+04
1.689
            1050.4
                       .229
                                 1.668 +04
                                                                    1.689
                                                                                1050.4
                                                                                            .229
                                                                                                     1.66E+04
                       .234
1.765
            1062.8
                                 1.50E+04
                                                                     1.765
                                                                                1062.8
                                                                                           .234
                                                                                                     1.50E+04
1.816
            1062.9
                       .238
                                 1.36E+04
                                                                     1.816
                                                                                1062.9
                                                                                            .238
                                                                                                     1.36E+04
1.867
            1051.1
                       .241
                                 1.27E+04
                                                                                           .241
                                                                     1.867
                                                                                1051.1
                                                                                                     1.27E+04
1.918
            1023.9
                       .244
                                 1.24E+04
                                                                                           .244
                                                                     1.918
                                                                                1023.9
                                                                                                     1.24E+04
                       .248
1.994
            1023.4
                                1.01E+04
                                                                     1.994
                                                                                1023.4
                                                                                            . 248
                                                                                                     1.0: +04
2.070
            1018.8
                       .251
                                 8.68E+03
                                                                    2.070
                                                                                1018.8
                                                                                            .251
                                                                                                     8.68E+03
```

7.97 MPA

3.58 MPA

32.23 KG/SEC-M**2

542.0 K

1.179E+06 J/KG

516.98 K

.070

1.179E+06 J/KG

1.166 M

. 164

0.0 W

.0093 M/SEC

POINT SERIAL NO. 3092.080 (TIME= 361.50 SEC) POINT SERIAL NO. 2092.080 (TIME= 360.50 SEC) LOOP PRESSURE(PE-3) 7.99 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 542.1 K LHP INLET ENTHALPY 1.179E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 3.58 MPA PRESSURE SAT TEMP SAT TEMP 516.97 K 32.19 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY .071 INLET ENTHAL PY 1.179E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION 1.157 M VELOCITY .0093 M/SEC VELOCITY .163 QUALITY QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV ELEVATION DZQF XE XA (M) (M) (K) 1.537 .380 732.7 .230 .174

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION	WALL TEMPER	
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP
(M)	(K)		M/W**5	M/W**5	(M)	(K)
.013	523.6	.071	1.25E+04		.013	523.6
.051	526.1	.074	1.25E+04		.051	526.1
.063	522.5	.074	1.25E+04		.063	522.5
.089	528.7	.076	1.26E+04		.089	528.7
.114	522.0	.077	1.25E+04		.114	522.0
140	521.5	.079	1.24E+04		. 140	521.5
. 165	522.5	.080	1.24£+04		. 165	522.5
.317	521.6	.089	1.25E+04		.317	521.6
. 394	525.0	.093	1.27E+04		. 394	525.0
.470	530.5	.097	1.30E+04		.470	530.4
.546	531.8	. 102	1.32E+09		.546	531.7
.622	525.1	. 106	1.28E+04		.622	525.1
.698	536.3	.111	1.35E+04		.698	536.2
.775	533.9	.116	1.35E+04		.775	533.7
.851	538.9	, 120	1.39E+04		.851	538.7
.927	548.2	. 125	1.47E+04		.927	547.9
1.003	538.2	. 131	1.54E+04		1.003	537.8
1.067	632.4	. 140	5.08E+04		1.067	627.0
1.156	760.6	. 163	6.37E+04		1.156	734.8
1.232	830.1	. 183	5.15E+04		1.232	821.9
1.257	842.7	. 190	6.98£+04		1.257	833.0
1.321	890.6	. 205	3.26E+04		1.321	888.4
1.384	956.9	.213	2.76€+04		1.384	955.3
1.460	988.2	.222	2.36E+04		1.460	987.1
1.511	998.7	.227	2.17E+04		1.511	997.6
1.562	1003.6	.233	2.27E+04		1.562	1002.5
1.613	1019.8	.238	2.18E+04		613	1018.8
1.689	1042.7	. 245	2.00E+04		1.689	1042.0
1.765	1057.2	.251	1.81E+04		1.765	1056.6
1.816	1058.0	.255	1.68E+04		1.816	1057.5
1.867	1048.3	.259	1.63E+04		1.867	1047.9
1.918	1021.3	.263	1.58E+04		1.918	1021.0
1.994	1024.2	.268	1.30E+04		1.994	1024.2
2.070	1021.7	.272	1.13£+04		2.070	1021.8

			WA THI WIGHT	1 1 1014
ELEVATION	DZQF	TV XE	XA	
(M)	(M)	(K)		
1.841	.675	854.5 .258	. 175	
1.041	.075	034.3 .630	.112	
WALL TEMPER	ATURE MEA	SUREMENT LOCA	TION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M##2
.013	523.6	.071	1.25E+04	
.051	526.1	.073	1.25E+04	
.063	522.5	.074	1.25E+04	
.089	528.7	.075	1.25E+04	
. 114	522.0	.077	1.25 € +04	
. 140	521.5	.078	1.24E+04	
. 165	522.5	.080	1.24E+04	
. 317	521.6	.088	1.25£+04	
. 394	525.0	.093	1.27E+04	
.470	530.4	.097	1.30E+04	
.546	531.7	, 101	1.31E+04	
.622	525.1	. 106	1.28E+04	
.698	536.2	,110	1.35E+04	
.775	533.7	.115	1.35E+04	
.851	538.7	. 120	1.398+04	
.927	547.9	. 125	1.46E+04	
1.003	537.8	.130	1.53E+04	
1.067	627.0	.139	4.84E+04	
1.156	734.8	. 162	6.30E+04	
1.232	821.9	. 182	5.65E+04	
1.257	833.0	. 190	7.70E+04	
1.321	888.4	.206	3.32E+04	
1.384	955.3	.214	2.78E+04	
1.460	987.1	.223	2.39E+04	
1.511	997.6	.229	2.18E+04	
1.562	1002.5	.234	2.28E+04	
1.613	1018.8	.239	2.18E+04	
1.689	1042.0	.246	1.99E+04	
1.765	1056.6	.253	1.80E+04	
1.816	1057.5	.257	1.67E+04 1.64E+04	
	1047.9		1.57E+04	
1.918	1024.2	.264	1.31E+04	
		.269	1.13E+04	
2.070	1021.8	.613	1.132704	

LOOP PRESSURE (PE-3) 7.98 MPA FCV TEMPERATURE (TE-FCV-1T) 541.6 K LHP INLET ENTHALPY 1.177E+06 J/KG TEST SECTION: PRESSURE 3.58 MPA SAT TEMP 516.97 K MASS FLUX 32.35 KG/SEC-M**2 INLET QUALITY .069 INLET ENTHALPY 1.177E+06 J/KG QUENCH FRONT: ELEVATION 1.228 M VELOCITY .0113 M/SEC QUALITY .179 0.0 W NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA
(M) (M) (k)

1019.7

1022.3

1024.0

1.918

1.994

2.070

(11)	Cock	4 10 3		
1.537	. 309	726.3 .	236 . 183	
ALL TEMPER			OCATION INFORMAT	ION
(M)	TEMP (K)	XE	HEAT FLUX W/M##2	HEAT LOSS W/M**2
.013	523.6	.070	1.25E+04	
.051	526.0	.072	1.25E+04	
.063	522.5	.073	1.25E+04	
.089	528.6	.074	1.26E+04	
.114	521.9	.076	1.25E+04	
. 140	521.5	.077	1.24E+04	
. 165	522.5	.079	1.24E+04	
.317	521.5	.087	1.26E+04	
. 394	524.8	.092	1.27E+04	
.470	530.1	.096	1.30E+04	
.546	531.4	. 100	1.31E+04	
.622	524.9	. 105	1.29E+04	
.698	535.7	. 109	1.35E+04	
.775	533.2	.114	1.35E+04	
.851	538.0	.119	1.38E+04	
.927	546.9	, 124	1.45E+04	
1,003	536.5	, 129	1.49E+04	
1.067	610.0	. 136	3.69E+04	
1.156	703.7	. 157	6.54E+04	
1.232	771.0	, 180	7.17E+04	
1.257	801.0	. 190	1.01E+05	
1.321	880.3	.210	3.77E+04	
1.384	949.4	.220	3.01E+04	
1.460	982.8	.229	2.52E+04	
1.511	993.9	.235	2.29E+04	
1.562	998.6	.240	2.37E+04	
1.613	1015.3	.246	2.27E+04	
1.689	1039.2	.253	2.07E+04	
1.765	1054.5	.260	1.89E+04	
1.816	1055.6	.264	1.75E+04	
1.867	1046.5	. 268	1.73E+04	

.272

.277

.282

1.66E+04

1.20E+04

1.37E+04

LOOP PRESSURE(PE-3)	7.99	MPA
FCV TEMPERATURE (TE-FCV-1T)	541.1	¥.
LHP INLET ENTHALPY	1.174E+06	J/RG
TEST SECTION:		
PRESSURE	3.58	MPA
SAT TEMP	516.98	K
MASS FLUX	32.37	KG/SEC-M##2
INLET QUALITY	.068	
INLET ENTHALPY	1.1745+06	J/KG
QUENCH FRONT:		
ELEVATION	1,253	M
VELOCITY	.0051	M/SEC
QUALITY	. 186	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 .284 722.9 .239 .184

WALL TEMPER		REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M##2
.013	523.6	.068	1.25E+04	
.051	526.0	.071	1.25E+04	
.063	522.5	.071	1.25E+04	
.089	528.5	.073	1.26E+04	
. 114	521.9	-074	1.25E+04	
. 140	521.5	.076	1.24E+04	
. 165	522.5	.077	1.25E+04	
. 317	521.5	.036	1.26E+04	
. 394	524.8	.090	1.28E+04	
.470	530.0	.095	1.30E+04	
.546	531.2	.099	1.31E+04	
.622	524.8	. 104	1.29E+04	
.698	535.4	. 108	1.35E+04	
.775	533.0	. 113	1.35E+04	
.851	537.7	. 117	1.38E+04	
.927	546.5	. 122	1.44E+04	
1.003	536.0	. 127	1.47E+04	
1.067	604.9	. 134	3.29E+04	
1.156	677.9	. 153	6.11E+04	
1,232	716.9	. 177	7.99E+04	
1.257	721.7	. 188	1.13E+05	
1.321	875.8	.210	4.04E+04	
1.384	946.4	.221	3.13E+04	
1.460	980.7	.230	2.59E+04	
1.511	992.1	.236	2.36E+04	
1.562	996.7	.242	2.42F+04	
1.613	1013.6	.247	2.31E+04	
1.689	1037.8	.255	2.08E+04	
1.765	1053.3	.261	1.93E+015	
1.816	1054.5	.266	1.77E+04	
1.867	1045.7	.270	1.77E+04	
1.918	1018.9	.274	1.68E+04	
1.994	1023.6	.279	1.40E+04	
2.070	1022.2	.284	1.22E+04	

2.070

903.2

906.1

.281

1.25E+04

```
POINT SERIAL NO. 1093.050 (TIME= 128.50 SEC)
POINT SERIAL NO. 1093.041 (TIME= 123.50 SEC)
(INFERRED VAPOR TEMP)
                                                                   LOOP PRESSURE(PE-3)
                                                                                                    7.95 MPA
                                                                  FCV TEMPERATURE(TE-FCV-1T)
                               7.99 MPA
LOOP PRESSURE(PE-3)
                                                                                              542.5 K
FCV TEMPERATURE (TE-FCV-1T) 541.3 K
                                                                                              1.181E+06 J/KG
                      1.175E+06 J/KG
                                                                   LHP INLET ENTHALPY
LHP INLET ENTHALPY
                                                                   TEST SECTION:
TEST SECTION:
                                                                                                   3.58 MPA
                                                                       PRESSURE
                                3.58 MPA
    PRESSURE
                                                                                               516.97 K
                            516.96 K
                                                                       SAT TEMP
    SAT TEMP
                                                                                               69.49 KG/SEC-M**2
                            70.66 KG/SEC-M**2
                                                                       MASS FLUX
    MASS FLUX
                                                                       INLET QUALITY
    INLET QUALITY
                                .068
                                                                                              1.181E+06 J/KG
                                                                       INLET ENTHALPY
                           1.175E+06 J/KG
    INLET ENTHALPY
                                                                   QUENCH FRONT:
QUENCH FRONT:
                                                                                                    .412 M
                                                                       ELEVATION
    ELEVATION
                                .320 M
                                                                                                   .0195 M/SEC
                                                                       VELOCITY
    VELOCITY
                               .0172 M/SEC
                                                                                                  . 122
                               . 105
                                                                       QUALITY
    QUALITY
                                                                                                   0.0 W
                                                                   NET LHP POWER TO FLUID
NET LIP POWER TO FLUID
                               0.0 W
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   ELEVATION DZQF
                                                                                    TV
                                                                                               XE XA
(INFERRED VAPOR TEMP)
                                                                               (M)
                                                                                       (K)
                                                                    (M)
                  IV
                            XE
                                AX
ELEVATION DZQF
           (M)
 (M)
                    (K)
                                                                   1,232
                                                                               .820 727.6 .238 .181
 1.232 .912
                 750.0
                         .234 .174
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   ELEVATION TEMP XE HEAT FLUX
                                                                                                                 HEAT LOSS
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                                (K)
                                                                                                    W/M**2
                                                                                                                  W/M##2
                                                                    (M)
                                              H/M**2
                                 W/M##2
 (M)
             (E)
                                                                                                3.46E+04
                                                                    .013
                                                                                547.2 .073
                                                                                                4.34E+04
                                                                                        .076
                                                                    .051
                                                                                567.6
                                3.57E+04
                       .069
  .013
             550.4
                                                                                          .077
                                                                    .063
                                                                                                  3.45E+04
3.94E+04
                       .072
                                                                                541.4
             574.1
                               4.61E+04
 .051
                       .073
                                                                     .089
                                                                                558.0
                                                                                          .079
                              3.50E+04
  .063
             543.6
                                                                                                    3.88E+04
                       .075
                              3.99E+04
                                                                     .114
                                                                                547.5
                                                                                          .081
  .089
             561.2
                                                                                          .083
                              3.79E+04
3.95E+04
4.92E+04
                                                                                                   4.53E+04
                       .077
                                                                     . 140
                                                                                540.3
 . 114
             549.6
                                                                                          .086
                                                                                547.8
                                                                                                    5.63E+04
                       .079
                                                                     . 165
 . 140
             540.8
                                                                    .317
                                                                                          . 106
                                                                                                    7.12E+04
                       .082
                                                                                628.8
  . 165
             545.7
                                                                    . 394
                                                                                          .119
                                                                                                   8.87E+04
  .317
                               9.58E+04
                                                                                643.2
             650.7
                       .105
                                                                                          . 134
                                                                                                   9.89E+04
                                                                                779.5
             789.8
                       .123
                                1.34E+05
                                                                     .470
  . 394
                                                                                          . 150
                                                                                792.5
                       .141
                                                                                                    1.04E+05
                               1.04E+05
                                                                     .546
             834.4
  .470
                                                                                841.7
                                                                                          . 166
                                                                                                    9.90E+04
                                                                     .622
  .546
                       . 157
                                1.02E+05
             859.6
                                                                                          . 180
                                                                                885.1
                                                                                                   8.05E+04
  .622
                       .173
                                9.58E+04
                                                                     .698
             888.6
                                                                                                    7.70E+04
                                                                     .775
                                                                                905.9
                                                                                          . 193
                               5.12E+04
  .698
             923.5
                       . 184
                                                                                          .204
                                                                                                    6.39E+04
                                                                                921.2
                       .194
                               6.84E+04
                                                                     .851
  .775
             936.2
                                                                                          .213
                                                                                                    5.36E+04
                                                                                933.4
                       .204
                                5.71E+04
                                                                     .927
             941.7
  .851
                                                                                                 4.99E+04
                                                                    1.003
                                                                                931.1
                                                                                          .221
             947.4
                       .212
                                4.86E+04
  .927
                                                                    1.067
                                                                                874.9
                                                                                          .227
                                                                                                    3.51E+04
 1.003
             942.9
                       .219
                                4.55E+04
                                                                                                    3.04E+04
                                 3.31E+04
                                                                    1.156
                                                                                902.7
                                                                                          .233
                                              5.01E+02
 1.067
             880.5
                       .225
                                                                                                3.06E+04
                                                                                          .238
                                                                                906.6
                                                                    1,232
 1,156
             905.7
                       .230
                               2.98E+04
                                                                                          .240
                                                                                                3.78E+04
                                                                                923.0
                                                                    1.257
 1.232
             910.9
                       .235
                               3.03E+04
                                                                                          .245
                                                                    1.321
                                                                                920.5
                                                                                                    3.42E+04
 1.257
             928.3
                       .237
                               3.94E+04
                                                                                          .249
                                                                                972.7
                                                                                                    3.41E+04
                              3.45E+04
                                                                    1.384
 1.321
             924.7
                       .242
                              3.51E+04
                                                                                                    3.05E+04
                       .246
                                                                    1.460
                                                                                976.4
                                                                                           .254
 1.384
             975.6
                               3.38E+04
                                                                                973.2
                                                                                           .257
                                                                                                    2.63E+04
                                                                    1.511
 1,460
             977.3
                       .252
                                                                                          .260
                                                                                970.2
                                                                                                    2.99E+04
             973.3
                                                                    1.562
 1.511
                       .255
                                2.99E+04
                                                                                          .263
                                                                                                    2.64E+04
                                                                                977.8
                       .258
                                3.45E+04
                                                                    1.613
 1.562
             971.9
                                                                                980.2
                                                                                          .267
                                                                                                    2.11E+04
                                 3.19E+04
                                                                    1.689
 1.613
             977.2
                       .262
                                                                                976.6
                                                                                                    1.832+04
                                                                    1.765
                                                                                          .270
                                 2.57E+04
 1.689
             977.0
                       .267
                                                                                972.4
                                                                                          .272
                                                                                                    1.50E+04
             972.5
                       .270
                                 2.29E+04
                                                                    1.816
 1.765
                                                                                946.2
                                                                                          .274
                                                                                                    1.36E+04
                       .273
                                 2.04E+04
                                                                    1.867
 1.816
             966.7
                                                                                          .275
                                                                                                    1.41E+04
                                                                    1,918
                                                                                933.6
                                 1.58E+04
 1.867
             939.5
                       .275
                                                                                           .277
                                                                                                    1.14E+04
                                1.72E+04
                                                                    1.994
                                                                                911.9
                       .276
 1.918
             926.5
                                                                                                    1.06E+04
                       .279
                                1.322+04
                                                                    2.670
                                                                                915.2
                                                                                           .279
```

928.6

.287

1.33E+04

```
POINT SERIAL NO. 1093.061 (TIME= 136.50 SEC)
                                                                        POINT SERIAL NO. 1093.070 (TIME= 143.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                   7.98 MPA
                                                                        LOGP PRESSURE(PE-3)
                                                                                                            7.96 MPA
                                                                        FCV TEMPERATURE ( IE-FCV-17)
FCV TEMPERATURE(TE-FCV-11)
                                 544.2 K
                                                                                                           545.8 K
LHP INLET ENTHALPY
                              1.190E+06 J/KG
                                                                                                       1.198E+06 J/KG
                                                                        LHP INLET ENTHALPY
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                   3.58 MPA
                                                                             PRESSURE
                                                                                                            3.58 MPA
     SAT TEMP
                                 516.95 K
                                                                             SAT TEMP
                                                                                                          516.95 K
     MASS FLUX
                                 68.74 KG/SEC-M**2
                                                                                                           68.80 KG/SEC-M**2
                                                                             MASS FLUX
     INLET QUALITY
                                   .077
                                                                             INLET QUALITY
                                                                                                            .082
     INLET ENTHALPY
                              1.190E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                       1.198E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
     ELEVATION
                                    .544 M
                                                                             ELEVATION
                                                                                                             .636 M
     VELOCITY
                                                                                                           .0124 M/SEC
                                  .0139 M/SEC
                                                                             VELOCITY
                                   . 138
                                                                                                            . 142
     QUAL: TY
                                                                             QUALITY
NET LHP POWER TO FLUID
                                    0.0 W
                                                                        NET LIFP POWER TO FLUID
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                        ELEVATION
                                                                                    DZQF
                                                                                            IV
                                                                                                       XE
                                                                                                           XA
ELEVATION
           DZQF
                              XE
                                                                          (M)
                                                                                     (M)
                                                                                               (K)
 (H)
            (M)
                      (K)
                                                                         1.232
                                                                                      .596
                                                                                             660.6
                                                                                                     .234 .191
1.232
            .688
                     700.0
                            .236 .185
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        ELEVATION
                                                                                      TEMP
                                                                                                  XE
                                                                                                            HEAT FLUX
                                                                                                                           HEAT LOSS
ELEVATION
              TEMP
                         XE
                                   HEAT FLUX
                                              HEAT LOSS
                                                                                                             W/M##2
                                                                                                                            W/M**2
                                                                          (M)
                                                                                       (K)
 (8)
              (K)
                                    W/M##2
                                                  W/M##2
                                                                                                  .082
                                                                          .013
                                                                                       537.0
                                                                                                            3.05E+04
  .013
              542.0
                         .078
                                   3.25E+04
                                                                           .051
                                                                                       546.0
                                                                                                  .085
                                                                                                            3.35E+04
  .051
              556.5
                         .081
                                   3.841+04
                                                                                                            2.96E+04
                                                                           .063
                                                                                       532.7
                                                                                                  .086
  .063
              536.9
                                    3.18E+04
                         .681
                                                                           .089
                                                                                       544.5
                                                                                                  .088
                                                                                                            3.09E+04
  .089
              550.9
                         .083
                                   3.45E+04
                                                                                                  .089
                                                                                                             3.04E+04
                                                                           . 114
                                                                                       536.1
  .114
              541.3
                         .085
                                   3.35E+04
                                                                           .140
                                                                                       528.6
                                                                                                  .091
                                                                                                            2.93E+04
  140
              533.5
                         .087
                                   3.39E+04
                                                                                                            2.98[+04
                                                                          . 165
                                                                                       531.4
                                                                                                  .092
  . 165
              537.2
                         .089
                                   4.09E+04
                                                                                                  .102
                                                                                                            3.24E+04
                                                                          .317
                                                                                       538.4
                         . 104
                                                                                                  .108
  .317
              584.7
                                   5.45E+04
                                                                          .394
                                                                                       553.1
                                                                                                            3.20 € + 04
                         . 114
  . 394
              626.4
                                   6.94E+04
                                                                                                  .115
                                                                           .470
                                                                                       581.1
                                                                                                            5.46E+04
  .470
              676.5
                                   7.825+04
                         . 126
                                                                           .546
                                                                                       621.8
                                                                                                  . 125
                                                                                                             7.85E+04
                         .139
  .546
              698.9
                                   8-23E+04
                                                                           .622
                                                                                       633.8
                                                                                                  . 139
                                                                                                            8.62E+04
                                                                                                  . 154
                         . 152
  .622
              744.9
                                   8.74E+04
                                                                          .698
                                                                                       759.9
                                                                                                            1.08E+05
                         . 167
                                                                          .775
  .698
              811.7
                                   9.39E+04
                                                                                       813.0
                                                                                                  .170
                                                                                                            8.99E+04
 .775
              851.6
                         .181
                                   8.43E+04
                                                                          .851
                                                                                       849.9
                                                                                                  . 184
                                                                                                            8.01E+04
                         . 194
  .851
              881.6
                                   7.02E+04
                                                                          .927
                                                                                      876.2
                                                                                                  . 197
                                                                                                            7.71E+04
                         .204
  .927
              899.7
                                   6.51E+04
                                                                         1.003
                                                                                      880.3
                                                                                                  .209
                                                                                                            7.48E+04
 1.003
              900.6
                         .215
                                   6.22E+04
                                                                         1.067
                                                                                       853.7
                                                                                                  .218
                                                                                                            5.06E+04
 1.067
              861.5
                         .222
                                   4.43E+04
                                                                         1.156
                                                                                       890.1
                                                                                                  .227
                                                                                                            4.43E+04
 1.156
              894.2
                         .230
                                   3.87E+04
                                                                         1.232
                                                                                       892.5
                                                                                                  .234
                                                                                                            4.18E+04
 1.232
              897.7
                         .236
                                   3.77E+04
                                                                         1.257
                                                                                       899.2
                                                                                                  ,236
                                                                                                            5.24E+04
                         .238
 1.257
              908.1
                                   4.65E+04
                                                                         1,321
                                                                                       905.6
                                                                                                  .243
                                                                                                            4.23E+04
 1,321
              911.7
                         .244
                                   3.94E+04
                                                                         1.384
                                                                                       956.9
                                                                                                  .249
                                                                                                            4.57E+04
 1.384
              962.6
                         .249
                                   4.09E+04
                                                                         1.460
                                                                                                   255
                                                                                                            3.96E+04
                                                                                       967.6
                         .255
 1,460
              970.2
                                   3.71E+04
                                                                         1.511
                                                                                       968.4
                                                                                                  .260
                                                                                                             3.56E+04
 1.511
              969.2
                         .259
                                   3.27E+04
                                                                         1.562
                                                                                       962.0
                                                                                                  .264
                                                                                                             3.88E+04
 1.562
              964.7
                         .263
                                   3.60E+04
                                                                         1.613
                                                                                       975.3
                                                                                                  .268
                                                                                                            3.56E+04
 1.613
              975.2
                         .267
                                   3.27E+04
                                                                                                            3.04E+04
                                                                         1.689
                                                                                       985.8
                                                                                                  .273
 1.689
              981.9
                         .271
                                   2.76£+04
                                                                         1.765
                                                                                                  .278
                                                                                       987.3
                                                                                                            2.63E+04
 1.765
              981.3
                         .276
                                   2.44E+04
                                                                         1.816
                                                                                       985.9
                                                                                                  .280
                                                                                                            2.30E+04
 1.816
              978.3
                         .278
                                   2.13E+04
                                                                         1.867
                                                                                       965.3
                                                                                                  .283
                                                                                                            2.03E+04
 1.867
              955.5
                                   1.88E+04
                         .280
                                                                         1,918
                                                                                       952.3
                                                                                                  .285
                                                                                                            2.05E+04
 1.918
              942.5
                                   1.90E+04
                         .282
                                                                         1.994
                                                                                       936.5
                                                                                                  .288
                                                                                                            1.56E+04
 1.994
              924.4
                         .285
                                   1.44E+04
                                                                         2.070
                                                                                       941.4
                                                                                                  .290
                                                                                                            1.43E+04
```

	THEE PUS	I-CHI EXPE	RIMENI NO. 93			THEL PUR	II-OIII EXP	LINITHEM	1 NO. 93	
POINT SERIA	APOR TEMP	93.081 (TIME= 148.50 SEC	-M**2	POINT SERIA TINFERRED V	AL NO. 10	93.091	(TIME=	156.50 SEC	:)
LOOP PRESSU	IRE(PE-3)	Lilian Co	7.96 MPA		LOOP PRESSU	IRE (PE-3)			7.97 MPA	
FCV TEMPERA	TURE (TE-F	CV-11)	546.8 K		FCV TEMPERA	TURE (IE-	CA-11)	. 200	47.9 K	
THP INCE ! E	NIHALPY		1.203E+06 J/KG		LHP INLET E	NIHALPY		1.209	1+00 J/KG	
TEST SECTIO	IN:		3 50 MOA		IEST SECTION	IN:			CO MOA	
PRESSU	IKE.		3.58 MPA		PRESSU	IKE.		6.1	1.08 MFA	
SAI IE	MP		516.95 K	WARD.	SALIE	MF		211	0.91 K	WH#2
MASS F	CHALLEY		08.52 KG/SEC	-M2	MASS F	DUAL LTV		0.0	0.00 KU/SEC	,-M2
INLET	CHILLE		1 2035+06 1786		INLET	CHTHALOV		1 200	. U00	
OUT NOW THAT	ENIMALFY		1.203E+00 J/RG		DHENCH EDON	ENIMALFI		1.209	L+00 J/KG	
EL EVAT	LON		606 M		EL EVAT	LON .			786 M	
VELOCI	IV		0120 M/SEC		VELOCI	TV			1107 M/SEC	
QUAL 11	Y		147		QUALIT	Y		***	154	
NET LHP POW	ER TO FLU	I D	0.0 W		NET LHP POW	ER TO FLU	IID		0.0 W	
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION INFORMA	TION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCAT	ION INFORMA	TION
ELEVATION Y	DZOE	TV	VE VA		ELEVATION	UZUE LEMI	TV	VE	VA.	
(M)	(M)	(K)	AE AA		(M)	(M)	(K)	A.E.	AA.	
1.232	.536	655.0 .	230 . 189	ION HEAT LOSS W/M**2	1.232	.446	620.0	.226	. 194	
WALL TEMPER	ATURE MEAS	SUREMENT L	OCATION INFORMAT	ION	WALL TEMPER	ATURE MEA	SUREMENT	LOCATIO	ON INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		LEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	HEAT LOSS W/M**2	(M)	(K)			W/M**2	M/W##5
.013	535.1	.085	2.991+04		.013	532.7	.089	- 1	2.921+04	
.051	542.4	.088	3.22E+04		.051	537.9	.091		3.07E+04	
.063	531.4	.088	2.92E+04		.063	529.6	.092		2.89E+04	
.089	542.5	.090	3.01E+04		.089	539.9	.093		2.94E+04	
. 114	534.3	.092	2.98E+04		. 114	532.0	.095		2.92E+04	
. 140	527.5	.093	2.88£+04		.140	520.1	.097		2.84£+04	
. 107	529.9	.093	2.935+04		, 100	528.2	.098		2.851 +04	
300	550.7	110	3.065+00		304	546 h	113		3 20E+04	
h70	569.6	115	h 00F+04		470	550.8	118	14.	3.20E+04	
546	582.0	123	5 50F+04		546	565 1	124		8 65F+04	
622	604.5	. 133	7.25F+04		622	548 4	130		3 755+04	
.698	711.2	.148	1.01E+05		.698	592.5	138	1	88E+04	
.775	759.3	. 163	9.391+04		.775	632.5	. 152		0.66E+04	
.851	820.3	.178	8.02E+04		.851	771.7	.168		0.69E+04	
.927	847.3	. 191	8.01E+04		.927	797.0	. 182		7.73E+04	
1.003	852.3	.203	7.82E+04		1.003	803.2	. 195		3.01E+04	
1.067	838.9	.213	5.668+04		1.067	809.3	.205	(5.53E+04	
1.156	879.3	.222	4.88E+04		1.156	856.5	.217		5.93E+04	
1.232	882.1	.230	4.75E+04		1.232	859.8	.226	(5.15E+04	
1.257	884.6	.233	5.46E+04		1.257	855.7	.230		77E+04	
1.321	896.9	.240	4.42E+04		1.321	880.1	.237	- 1	1.91E+04	
1.384	946.8	. 246	4.661+04		1.384	926.6	.244	L	1.89E+04	
1.460	960.1	.253	4.261+04		1.460	943.7	.252		1.81E+04	
1.563	902.4	.258	3.761+04		1.511	948.9	.256		.09E+04	
1.502	970.8	266	3.926+04		1.562	941.9	.261		1.24E+04	
1 680	970.9	271	3 195404		1,013	960.2	. 265		105404	
1 765	087 5	276	2 705+04		1.089	9/1.4	.2/1		005404	
1 816	986 6	270	2 545+04		1 916	984.3	.276		755404	
1.867	968 3	282	2 355+04		1 867	969.2	202		685+04	
1.918	955.4	284	2 305+04		1 918	957.5	202		51E+0h	
1.994	942.7	287	1.74F+04		1 99h	950.6	. 203		965+04	
2.070	948.4	.290	1.58E+04		2 070	957 7	201		78F+04	
- 1 30 3 30	2.00.4		11201.04		2.010	221.1			. / 01. 104	

POINT SERIA	AL NO. 109	3.101 (TIME= 161.50 SEC)	POINT SERIAL	NO. 16	93.111	(TIME:	169.50 SEC	1
(INFERRED V	VAPOR TEMP				(INFERRED V	APOR TEM	2)			
LOOP PRESSI	OOP PRESSURE(PE-3) 7.99 MPA			POINT SERIAL NO. 1093.111 (INFERRED VAPOR TEMP) LOOP PRESURE(PE-3) FCV TEMPERATURE(TE-FCV-11) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAI TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID			7 QR MPA			
FCV TEMPERA	TEMPERATURE (TE-FCV-II) 548.5 K						548.8 K			
THE INLET I	INLET ENTHALPY 1.212E+06 J/KG									
TEST SECTION	ON:				TEST SECTION	V:				
PRESSI	IRF		3 58 MPA		PRESSIN	S.F.			3 58 MPA	
SAT TO	SAT TEMP 516 07 W				SAT TIMP			516 00 K		
MACC	MACC ELINY 22 OF MOTOR MARS				MACE FILIV			67 61 VC/SEC_W##9		
I MI ET	THE FE AUGUST OF A CONTROL OF A				PASS FI	DHALLETY		07.01 KU/3EU-M-"2		
THLET	THE CHALLY				INLEF	CHALIII			.090	
OUT DON'T COOK				INLET I	ENIMALPY		1.214	IE TUO J/KG		
QUENCH FROM	QUENCH FRONT:				QUENCH FROM	104			0.70 44	
LLLVA	ITON		.042 M		ELEVAI	ION			.939 M	
VELOG	114		.0115 M/SEC		VELOCITY				0130 M/SEC	
QUALITY .160				QUALITY			. 107			
NET LHP POP	MEK TO LEGI	U	0 .0 W		NET LHP POWE	K TO FEL	HD		0.0 W	
VAPOR TEMPI	FRATURE MEA	SURFMENT	LOCATION INFORMA	TION	VAPOR TEMPET	RATURE ME	ASUREMENT	LOCAL	LON INFORMA	TION
(INFERRED V	VAPOR TEMP	CONTESTE IN	A.S. C. S. C. S.		VAPOR TEMPERATURE MEASUREMENT (INFERRED VAPOR TEMP) ELEVATION DZQF TV (M) (M) (K)			Eddition in direction		
ELEVATION	DZOF	TV	YF XA		FLEVATION	DZOF	TV	VE	VA.	
(M)	(M)	(K)	AL AM		(M)	(M)	(6)	AL	AA	
1.232	. 390	590.0 .	225 .200		1.232	.293	552.0	.215	.201	
WALL TEMPER	RATURE MEAS	SURFMENT L	OCATION INFORMAT	LON	WALL TEMPERA ELEVATION (M)	THRE MEA	SUREMENT	LOCATI	ON INFORMAT	ION
ELEVATION	TEMP	XF	HEAT FLUX	HEAT LOSS	FLEVATION	TEMP	XF	LOWER	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M##2	(M)	(K)			W/M##2	W/M##2
40.0					8718	4 ,			***************************************	11/11-6
.013	531.6	.090	2.91E+04		.013	530.2	.091		2.88E+04	
.05	535.7	.093	3.04E+04		.051	533.5	. 093		2.95E+04	
.063	528.6	.093	2.93[+04		.063	527.7	.094		2.83F+04	
.089	538.5	. 095	2.95E+04		.089	536.9	.096		2.92F+04	
. 114	530.9	.097	2.88E+04		.114	529.5	.097		2.87F+04	
, 140	525.4	.098	2.81E-04		. 140	524.9	.099		2.82E+04	
. 165	527.4	, 100	2.82E+04		. 165	526.5	100		2.84F+04	
. 317	530.4	. 109	2.96E+04		.317	523.4	. 110		2.94E+00	
. 394	543.3	. 114	3.11E+04		. 394	540.2	. 115		3.02E+04	
.470	555.7	.119	3.30E+04		, 470	550.6	.120		3.20E+04	
.546	559.7	. 125	3.49E+04		. 546	553.4	. 125		3.29E+04	
.622	542.8	. 130	3.39E+04		.622	537.9	131		3.12E+04	
.698	575.3	. 137	4.37E+04		. 698	562.9	. 136		3.61E+04	
.775	578.9	. 145	5.98E+04		.775	560.9	102		3 78E+04	
. 851	741.5	. 163	1.52E+05		.851	586.9	. 150		5 42F+04	
.927	770.1	. 181	7.51E+04		927	647.3	Tolk		1 20F+05	
1.003	775.3	. 194	7.63E+04		1.003	738.6	179		6.56E+04	
1.067	788.4	.203	6.32E+04		1.067	757.7	188		5.545+04	
1.156	839.2	.214	5.51E+04		1.156	816.5	198		h 85F+0h	
1.232	838.5	.225	7.93E+04		1.232	714 5	215		1.57E+05	
1.257	841.6	.229	4.71E+04		1.257	792.5	222		9 78E+04	
1.321	869.9	.235	3.94F+04		1.321	849 2	231		h 12F+0h	
1.384	917.6	240	3.735+04		1 384	893 1	237		3 88E+0h	
1.460	934.1	246	3.655+04		1 460	913 0	201		h 02F+04	
1.511	943.0	.250	3.13E+04		1.511	923 3	24.7		h 005+0h	
1.562	936.5	253	3. 1hF+0h		1 562	916 6	252		3 715+04	
1.613	958.7	.256	2.61E+04		1 613	941.9	256		3 275+04	
1 689	977.8	260	2 17F+0h		1 689	964 6	261		2 085404	
1.765	985 6	263	1 86F+0h		1 765	0.74.0	266		2 505400	
1.816	985.7	265	1 55E+00		1 816	077 0	.200		3.791.404	
1.867	971 /	267	1 97F+0h		1 867	065 3	273		2 675404	
1 918	960.2	260	1 96F+04		1 018	969.2	.213		3.035+04	
1 900	955 5	272	1 805+04		1.910	954.1	.211		3.226404	
2.070	963.5	275	1 665+04		2 070	950.5	. 282		2 435404	
2.010	303.3		1.000.04		ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	900.3	. 200		2.43E+04	

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INEL POST-CHE EXPERIMENT NO. 95
                                                                                      INEL POST-CHE EXPERIMENT NO. 95
POINT SERIAL NO. 1095.020 (TIME= 92.50 SEC)
                                                                          POINT SERIAL NO. 2095.020 (TIME= $3.50 SEC)
                                    7.97 MPA
                                                                         LOOP PRESSURE(PE-3)
                                                                                                              7.98 MPA
LOOP PRESSURE(PE-3)
                                                                         FCV TEMPERATURE (TE-FCV-1T)
FCV TEMPERATURE (TE-FCV-1T)
                                  546.1 K
                                                                                                             546.2 K
                                                                         LMP INLET ENTHALPY
                                                                                                         1.200E+06 J/KG
LIP INLET ENTHALPY
                               1.200E+06 J/KG
TEST SECTION:
                                                                          TEST SECTION:
                                                                               PRESSURE
                                                                                                              3.58 MPA
     PRESSURE
                                   3.58 MPA
                                                                               SAT TEMP
                                 517.01 K
                                                                                                            517.03 K
     SAT TEMP
                                  60.98 KG/SEC-M**2
                                                                               MASS FLUX
                                                                                                            61.05 KG/SEC-M**2
     MASS FLUX
                                   .082
     INLET QUALITY
                                                                               INLET QUALITY
                                                                                                              .082
     INLET ENTHALPY
                               1,200E+06 J/KG
                                                                               INLET ENTHALPY
                                                                                                         1,200E+06 J/KG
                                                                         QUENCH FRONT:
QUENCH FRONT:
     ELEVATION
                                    .106 M
                                                                               ELEVATION
                                                                                                              .116 M
                                                                                                             .0097 M/SEC
                                   .0097 M/SEC
                                                                               VELOCITY
     VELOCITY
                                                                               QUALITY
                                                                                                              .110
     QUALITY
                                   . 113
NET LHP POWER TO FLUID
                                    0.0 W
                                                                         RET LHP POWER TO FLUID
                                                                                                               0.0 W
                                                                         VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                       DZQF
                                                                                                TV
                      TV
                              XE XA
                                                                         ELEVATION
                                                                                                        XE XA
ELEVATION
             DZQF
                      (K)
                                                                           (M)
                                                                                       (M)
                                                                                                (K)
             (M)
 (M)
                                                                          1.537
                                                                                      1,421
                                                                                               728.1 .373 .284
1.232
            1.125
                   729.0 .328 .250
                                                                         WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                       TEMP
                                                                                                                             HEAT LOSS
                                                  HEAT LOSS
                                                                         ELEVATION
                                                                                                              HEAT FLUX
ELEVATION
              TEMP
                          XE
                                    HEAT FLUX
                                                                                                    XE
                                     W/M##2
                                                                                                               W/M**2
                                                   W/M#42
                                                                           (M)
                                                                                        (K)
                                                                                                                              W/M**2
               (K)
 (M)
                                    5.39E+04
                                                                           .013
                                                                                        577.5
                                                                                                    .084
                                                                                                              5.12E+04
  .013
              580.8
                          .084
 .051
              636.8
                         .090
                                    9.17E+04
                                                                            .051
                                                                                        629.3
                                                                                                    .090
                                                                                                              8.29E+04
                                                                                        577.8
                                                                                                    .092
                         .093
                                    9.40E+04
                                                                            .063
                                                                                                              7.72E+04
  .063
              585.1
                         . 104
                                                                            .089
                                                                                        625.2
                                                                                                    .100
                                                                                                              1.65E+05
                                    2.60E+05
 .089
              646.2
 . 114
                         .117
                                                                                                    .110
              750.4
                                    1.74E+05
                                                                            . 114
                                                                                        663.4
                                                                                                              1.68E+05
                         .126
  . 140
              782.1
                                    9.98E+04
                                                                            . 140
                                                                                        773.7
                                                                                                    . 118
                                                                                                              1.01E+05
                                    1.05E+05
                                                                           . 165
                                                                                                    . 124
                                                                                                              1.09E+05
  . 165
              776.4
                         . 132
                                                                                        766.7
                                                                           .317
                         .173
                                    1.22E+05
                                                                                        834.0
                                                                                                   . 166
                                                                                                              1.19E+05
              844.5
 .317
                         . 196
                                    1.27E+05
                                                                           . 394
                                                                                        868.8
                                                                                                   . 189
                                                                                                              1.27E+05
  . 394
              880.1
  .470
              911.2
                         .218
                                    1.05E+05
                                                                           .470
                                                                                        901.0
                                                                                                   .211
                                                                                                              1.17E+05
                                                                                        919.8
  .546
              927.4
                         .235
                                    8.57E+04
                                                                           .546
                                                                                                   .231
                                                                                                              9.82E+04
                                                                                                   .247
                                                                           .622
 .622
              935.9
                         .250
                                    7.47E+04
                                                                                        929.6
                                                                                                              8.74E+04
 .698
              939.1
                         .263
                                    6.53E+04
                                                                            .698
                                                                                        934.5
                                                                                                    .263
                                                                                                              7.80E+04
 .775
              940.6
                         .275
                                    7.17E+04
                                                                           .775
                                                                                        935.7
                                                                                                    .276
                                                                                                              7.42E+04
  .851
              942.3
                         .288
                                    6.91E+04
                                                                           .851
                                                                                        938.2
                                                                                                   .289
                                                                                                              6.64E+04
                                    5.60E+04
                                                                            .927
                                                                                        940.2
  .927
              943.2
                         .299
                                                                                                   .301
                                                                                                              6.35E+04
                         .310
                                    5.58E+04
                                                                          1.003
                                                                                        930.4
                                                                                                   .313
                                                                                                              6.37E+04
 1.003
              933.4
                                    3.22E+04
                                                                          1.067
                                                                                        862.6
                                                                                                   .320
                                                                                                              3.49E+04
 1.067
              863.2
                         .316
                                    3.50E+04
                                                                                        894.9
 1.156
              895.6
                         . 324
                                                                          1.156
                                                                                                   .328
                                                                                                              3.88E+04
                                                                                        900.7
                         . 329
                                    2.80E+04
                                                                          1.232
                                                                                                   . 335
                                                                                                              3.16E+04
 1.232
              901.1
                         .332
                                                                                                   . 337
              918.9
                                    5.03E+04
                                                                          1.257
                                                                                        916.9
                                                                                                              5.53E+04
 1.257
              914.7
                                    4.72E+04
                                                                          1,321
                                                                                        912.8
                                                                                                              5.08E+04
 1.321
                          . 339
                                                                                                   . 345
                                                                                        972.6
              974.9
                         . 347
                                    5.27E+04
                                                                          .. 384
                                                                                                   . 353
                                                                                                              5.73E+04
 1.384
                                                                                       973.8
                                                                          1.460
 1.460
              976.8
                         . 355
                                    5.09E+04
                                                                                                   . 364
                                                                                                              5.66E+04
                         .362
1.511
              970.8
                                    4.15E+04
                                                                          1.511
                                                                                        969.1
                                                                                                   .370
                                                                                                              4.75E+04
                                                                                                   .376
1.562
              973.9
                         .367
                                    4.69E+04
                                                                          1.562
                                                                                        971.7
                                                                                                              5.54E+04
                                    4.63E+04
                                                                                        977.0
                                                                                                   . 383
 1.613
              979.1
                         .373
                                                                          1.613
                                                                                                              5.13E+04
                                                                                        973.2
                                                                                                   .392
                                    5.27E+04
                                                                          1.689
                                                                                                              5.31E+04
              976.7
                         .382
 1.689
                         .390
              972.5
                                    3.78E+04
                                                                          1.765
                                                                                        971.0
                                                                                                   .401
                                                                                                              4.40E+04
1.765
                         .394
1.816
              966.3
                                    3.58E+04
                                                                          1.816
                                                                                        964.9
                                                                                                   .407
                                                                                                              4.38E+04
              939.4
                         .398
                                    2.54E+04
                                                                          1.867
                                                                                        939.3
                                                                                                   .411
                                                                                                              3.06E+04
1.867
```

1.994

2.070

.415

,420

.425

927.9

903.3

900.6

3.32E+04

2.45E+04

2.21E+04

.401

.406

.409

922.1

902.8

899.8

1.918

1.994

2.070

2.77E+04

2.06E+04

1.88E+04

```
POINT SERIAL NO. 3095.020 (TIME= 92.50 SEC)
                                                                         POINT SERIAL NO. 2095.031 (TIME= 104.50 SEC)
                                                                         (INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                   7.97 MPA
                                                                         LOOP PRESSURE ( PE-3)
                                                                                                              7.98 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                  546.1 K
                                                                         FCV TEMPERATURE (TE-FCV-1T)
                                                                                                            547.4 K
LHP INLET ENTHALPY
                              1.200E+06 J/KG
                                                                         LHP INLET ENTHALPY
                                                                                                        1,206E+06 J/KG
TEST SECTION:
                                                                         TEST SECTION:
     PRESSURE
                                   3.58 MPA
                                                                                                             3.58 MPA
                                                                              PRESSURE
     SAT TEMP
                                 517.01 K
                                                                              SAT TEMP
                                                                                                           517.04 K
     MASS FLUX
                                  60.98 KG/SEC-M**2
                                                                              MASS FLUX
                                                                                                            60.27 KG/SEC-M**2
     INLEY QUALITY
                                   .082
                                                                              INLET QUALITY
                                                                                                              .086
     INLET ENTHALPY
                               1.200E+06 J/KG
                                                                              INLET ENTHALPY
                                                                                                        1.206E+36 J/KG
QUENCH FRONT:
                                                                         QUENCH FRONT:
     ELEVATION
                                    . 106 M
                                                                              ELEVATION
                                                                                                              .307 M
     VELOCITY
                                   .0097 M/SEC
                                                                              VELOCITY
                                                                                                             .0159 M/SEC
     QUALITY
                                   . 113
                                                                              QUALITY
                                                                                                             - 144
NET LHP POWER TO FLUID
                                    0.0 W
                                                                         NET LHP POWER TO FLUID
                                                                                                              0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                      TV
                              XE
                                    XA
                                                                         (INFERRED VAPOR TEMP)
 (M)
             (M)
                      (K)
                                                                                               · TV
                                                                         ELEVATION DZQF
                                                                           (M)
                                                                                      (M)
                                                                                                (K)
1.841
            1.735
                     822.5 .394 .275
                                                                          1.537
                                                                                     1.229
                                                                                               755.0 .349 .259
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                   HEAT FLUX
                                                  HEAT LOSS
                                                                         WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
 (M)
               (K)
                                     M/M##2
                                                   W/M##2
                                                                         ELEVATION
                                                                                       TEMP
                                                                                                 XE
                                                                                                              HEAT FLUX
                                                                                                                            HEAT LOSS
                                                                           (M)
                                                                                        (K)
                                                                                                              W/M##2
                                                                                                                              W/M##2
  .013
              580.8
                                   5.39E+04
  .051
              636.8
                         .090
                                                                           .013
                                   9.17E+04
                                                                                        557.2
                                                                                                   .087
                                                                                                              3.93E+04
  .063
              585.1
                         .093
                                   9.40E+04
                                                                           .051
                                                                                        586.2
                                                                                                   . 091
                                                                                                              5.39E+04
  .089
              646.2
                         . 104
                                   2.60E+05
                                                                            .063
                                                                                        551.1
                                                                                                   .093
                                                                                                              4.35E+04
 . 114
              750.4
                         .117
                                                                           .089
                                    1.74E+05
                                                                                        574.1
                                                                                                   .096
                                                                                                              6.31E+04
  . 140
              782.1
                         . 126
                                   9.98E+04
                                                                           . 114
                                                                                                   . 100
                                                                                        570.4
                                                                                                              6.46E+04
  . 165
              776.4
                         . 132
                                   1.05E+95
                                                                           . 140
                                                                                        582.1
                                                                                                   . 105
                                                                                                              1.01E+05
  .317
              844.5
                         .173
                                   1.22E+05
                                                                           . 165
                                                                                        590.5
                                                                                                   .111
                                                                                                              9.49E+04
              880.1
  .394
                         . 196
                                    1.27E+05
                                                                           .317
                                                                                        696.4
                                                                                                   . 146
                                                                                                              9.37E+04
                         .218
  .470
              911.2
                                   1.05E+05
                                                                           . 394
                                                                                        777.4
                                                                                                   . 164
                                                                                                              1.04E+05
                         .235
  .546
              927.4
                                   8.57E+04
                                                                           .470
                                                                                        803.8
                                                                                                   . 183
                                                                                                              1.05E+05
  .622
              935.9
                         .250
                                   7.47E+04
                                                                           .546
                                                                                        837.1
                                                                                                   .203
                                                                                                              1.04E+05
  .698
              939.1
                         .263
                                   6.53E+04
                                                                           .622
                                                                                        848.5
                                                                                                   .220
                                                                                                              8.85E+04
 .775
              940.6
                         .275
                                   7.17E+04
                                                                           .698
                                                                                        867.8
                                                                                                   .236
                                                                                                              8.02E+04
  .851
              942.3
                         .288
                                   6.91E+04
                                                                           .775
                                                                                       874.7
                                                                                                   .250
                                                                                                              7. :7E+04
                         .299
  .927
              943.2
                                   5.60E+04
                                                                           .851
                                                                                        887.5
                                                                                                   .264
                                                                                                              7.12E+04
 1.003
              933.4
                         . 310
                                   5.58E+04
                                                                                                   .277
                                                                           .927
                                                                                        893.4
                                                                                                             6.62E+04
1.067
              863.2
                         .316
                                    3.22E+04
                                                                                                   .289
                                                                          1,003
                                                                                        888.9
                                                                                                             6.15E+04
1.156
              895.6
                         . 324
                                    3.50E+04
                                                                          1.067
                                                                                        841.6
                                                                                                   .297
                                                                                                             4.52E+04
                         .329
1.232
              901.1
                                   2.80E+04
                                                                          1,156
                                                                                        877.1
                                                                                                   . 306
                                                                                                             4.29E+04
                         .332
1.257
              918.9
                                   5.03E+04
                                                                          1.232
                                                                                        880.5
                                                                                                   . 314
                                                                                                             4.33E+04
1.321
              914.7
                         . 339
                                   4.72E+04
                                                                                                   .317
                                                                          1.257
                                                                                        887.0
                                                                                                              5.27E+04
1.384
              974.9
                         . 347
                                   5.27E+04
                                                                          1,321
                                                                                        888.2
                                                                                                   . 325
                                                                                                              4.72E+04
1.460
              976.8
                         . 356
                                    5.09E+04
                                                                          1.384
                                                                                        939.1
                                                                                                   .333
                                                                                                              5.44E+04
1.511
              970.8
                         .362
                                   4.15E+04
                                                                          1.460
                                                                                       942.8
                                                                                                   . 343
                                                                                                              5.28E+04
                         .367
1.562
              973.9
                                   4.69E+04
                                                                                        942.8
                                                                          1.511
                                                                                                   . 349
                                                                                                             4.72E+04
1.613
              979.1
                         .373
                                   4.63E+04
                                                                          1.562
                                                                                        941.3
                                                                                                   .355
                                                                                                              5.19E+04
1.689
              976.7
                         . 382
                                   5.27F+04
                                                                                                   .361
                                                                          1.613
                                                                                        949.7
                                                                                                             4.91E+04
1.765
                         .390
              972.5
                                    3.78E+04
                                                                                                   .370
                                                                          1.689
                                                                                        950.8
                                                                                                             4.63E+04
                         . 394
1.816
              966.3
                                   3.58E+04
                                                                          1.765
                                                                                        953.3
                                                                                                   .378
                                                                                                             4.11E+04
                         .398
1.867
              939.4
                                   2.54E+04
                                                                          1.816
                                                                                        949.5
                                                                                                   . 383
                                                                                                              3.79E+04
                         .401
1.918
              922.1
                                   2.77E+04
                                                                          1.867
                                                                                       933.2
                                                                                                   . 387
                                                                                                              3.26E+04
1.994
              902.8
                         .406
                                   2.06E+04
                                                                          1.918
                                                                                        914.0
                                                                                                   . 391
                                                                                                              3.30E+04
2.070
              899.8
                         .409
                                   1.88E+04
                                                                                                   .397
                                                                          1.994
                                                                                        903.9
                                                                                                              2.66E+04
```

903.2

.401

2.502+04

```
POINT SERIAL NO. 3095.031 (TIME= 104.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
FCV TEMPERATURE(TE-FCV-1T)
                                    7.98 MPA
                                   547.4 K
LHP INLET ENTHALPY
                               1.206E+06 J/KG
TEST SECTION:
     PRESSURE
                                    3.58 MPA
     SAT TEMP
                                  517.04 K
     MASS FLUX
                                   60.27 KG/SEC-M**2
     INLET QUALITY
                                    .086
     INLET ENTHALPY
                               1.206E+06 J/KG
QUENCH FRONT:
     ELEVATION
                                    .307 M
     VELOCITY
                                   .0159 M/SEC
     QUALITY
                                    . 144
NET LHP POWER TO FLUID
                                     0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
```

	VAPOR TEM		LUUA	1 POIN	THEORPATTO
ELEVATION (M)	DZQF (M)	(K)	XE	XA	
1.841	1.534	816.0	. 383	.268	n (100)

ELEVATION (K) (M) (K)	WALL TEMPER	ATURE MEASI	PREMENT LOC	CATION INFORMAT	ION
.013	ELEVATION	TEMP		HEAT FLUX	
.051	(M)	(K)		W/M**2	W/M##2
.051	013	EE 7 0	002		
.063					
.089 574.1 .096 6.31E+04 .114 570.4 .100 6.46E+04 .140 582.1 .105 1.01E+05 .165 590.5 .111 9.49E+04 .317 696.4 .146 9.37E+04 .394 777.4 .164 1.04E+05 .470 803.8 .183 1.05E+05 .468 837.1 .203 1.04E+05 .622 848.5 .220 8.85E+04 .698 867.8 .236 8.02E+04 .775 874.7 .250 7.77E+04 .851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 .003 888.9 .289 6.15E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.256 877.1 .306 4.29E+04 1.257 887.0 .317 5.27E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.321 888.2 .325 4.72E+04 1.3384 939.1 .333 5.44E+04 1.360 942.8 .343 5.28E+04 1.460 942.8 .343 5.28E+04 1.562 941.3 .355 5.19E+04 1.562 941.3 .355 5.19E+04 1.689 950.8 .370 4.63E+04 1.689 950.8 .370 4.63E+04 1.816 949.5 .383 3.79E+04 1.816 949.5 .383 3.79E+04 1.816 949.5 .383 3.79E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			4.000.00		
.114 570.4 .100 6.46E+04 .140 582.1 .105 1.01E+05 .165 590.5 .111 9.49E+04 .317 696.4 .146 9.37E+04 .394 777.4 .164 1.04E+05 .470 803.8 .183 1.05E+05 .546 837.1 .203 1.04E+05 .622 848.5 .220 8.85E+04 .698 867.8 .236 8.02E+04 .775 874.7 .250 7.77E+04 .851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.511 942.8 .343 5.28E+04 1.562 941.3					
. 140					
. 165					
. 317					
. 394					
. 470 803.8 .183 1.05E+05 .546 837.1 .203 1.04E+05 .622 848.5 .220 8.85E+04 .698 867.8 .236 8.02E+04 .775 874.7 .250 7.77E+04 .851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.48E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.994 903.9 .397 2.66E+04					
.546 837.1 .203 1.04E+05 .622 848.5 .220 8.85E+04 .698 867.8 .236 8.02E+04 .775 874.7 .250 7.77E+04 .851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.156 877.1 .306 4.29E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.562 941.3 .355 5.19E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.994 903.9 .397 2.66E+04					
.622 848.5 .220 8.85E+04 .698 867.8 .236 8.02E+04 .775 874.7 .250 7.77E+04 .851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.156 877.1 .306 4.29E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.360 942.8 .343 5.28E+04 1.511 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.562 941.3 .355 5.19E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.816 949.5 .383 3.79E+04 1.816 949.5 .383 3.79E+04 1.817 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04		803.8			
.698					
.775 874.7 .250 7.77E+04 .851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.156 877.1 .306 4.29E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.562 941.3 .355 5.19E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.994 903.9 .397 2.66E+04					
.851 887.5 .264 7.12E+04 .927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.156 877.1 .306 4.29E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .343 5.28E+04 1.562 941.3 .355 5.19E+04 1.562 941.3 .355 5.19E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04				8.02E+04	
. 927 893.4 .277 6.62E+04 1.003 888.9 .289 6.15E+04 1.067 841.6 .297 4.52E+04 1.156 877.1 .306 4.29E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 .361 4.91E+04 1.6689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.816 949.5 .383 3.79E+04 1.816 949.5 .383 3.79E+04 1.817 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04					
1.003				7.12E+04	
1.067 841.6 .297 4.52E+04 1.156 877.1 .306 4.29E+04 1.232 880.5 .314 4.33E+04 1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 .361 4.91E+04 1.613 949.7 .361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			.277	6.62E+04	
1.156 877.1 306 4.29E+04 1.232 880.5 314 4.33E+04 1.257 887.0 317 5.27E+04 1.321 888.2 325 4.72E+04 1.384 939.1 333 5.44E+04 1.460 942.8 343 5.28E+04 1.511 942.8 349 4.72E+04 1.562 941.3 355 5.19E+04 1.613 949.7 361 4.91E+04 1.689 950.8 370 4.63E+04 1.765 953.3 378 4.11E+04 1.816 949.5 383 3.79E+04 1.816 949.5 383 3.79E+04 1.816 949.5 383 3.79E+04 1.817 933.2 387 3.26E+04 1.918 914.0 391 3.30E+04			.289	6.15E+04	
1.232 880.5 .314 4.33E • 04 1.257 887.0 .317 5.27E + 04 1.321 888.2 .325 4.72E + 04 1.384 939.1 .333 5.48E + 04 1.460 942.8 .343 5.28E + 04 1.511 942.8 .349 4.72E + 04 1.562 941.3 .355 5.19E + 04 1.613 949.7 361 4.91E + 04 1.689 950.8 .370 4.63E + 04 1.765 953.3 .378 4.11E + 04 1.765 953.3 .378 4.11E + 04 1.816 949.5 .383 3.79E + 04 1.867 933.2 .387 3.26E + 04 1.918 914.0 .391 3.30E + 04 1.994 903.9 .397 2.66E + 04			.297	4.52E+04	
1.257 887.0 .317 5.27E+04 1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.4E+04 1.460 942.8 .343 5.2EE+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 .361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			. 306	4.29E+04	
1.321 888.2 .325 4.72E+04 1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 .361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			.314	4.33E+04	
1.384 939.1 .333 5.44E+04 1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 .361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.924 903.9 .397 2.66E+04			.317	5.27E+04	
1.460 942.8 .343 5.28E+04 1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04		888.2	.325	4.72E+04	
1.511 942.8 .349 4.72E+04 1.562 941.3 .355 5.19E+04 1.613 949.7 .361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			. 333	5.44E+04	
1.562 941.3 .355 5.19E+04 1.613 949.7 361 4.91E+04 1.689 950.8 370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			. 343	5.28E+04	
1.613 949.7 .361 4.91E+04 1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			. 349	4.72E+04	
1.689 950.8 .370 4.63E+04 1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			. 355	5.19E+04	
1.765 953.3 .378 4.11E+04 1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			361	4.91E+04	
1.816 949.5 .383 3.79E+04 1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04		950.8	. 370	4.63E+04	
1.867 933.2 .387 3.26E+04 1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04			. 378	4.11E+04	
1.918 914.0 .391 3.30E+04 1.994 903.9 .397 2.66E+04		949.5	. 383	3.79E+04	
1.994 903.9 .397 2.66E+04		933.2	. 387	3.26E+04	
1.994 903.9 .397 2.66E+04		914.0	. 391	3.30E+04	
		903.9	. 397		
20010	2.070	903.2	.401	2.50E+04	

POINT SERIAL NO. 1096.010	(TIME= 246	.50 SEC)
LOOP PRESSURE(PE-3)	8.04	MPA
FCV TEMPERATURE (TE-FCV-1T)	547.4	K
LHP INLET ENTHALPY	1.206E+06	J/KG
TEST SECTION:		
PRESSURE	3.58	MPA
SAT TEMP	517.04	
MASS FLUX		KG/SEC-M**2
INLET QUALITY	.086	
INLET ENTHALPY	1.206E+06	
QUENCH FRONT:		
ELEVATION	.867	M
VELOCITY		M/SEC
QUALITY	. 149	
NET THE POWER TO FLUID	0.0	

VAPOR	TEMPERATURE	MEASUREMENT	LOCATION	INFORMATION
ELEVAT	ION DZQF	TV (K)	XE XA	

1.232	. 365	599.8	. 193	170

1.636	. 309	599.8 .193	. 170	
WALL TEMPER	ATURE MEA	SUREMENT LOCAT	ION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
	177			
.013	574.1	.087	2.24E+04	
.051	538.9	.089	2.29E+04	
.063	527.8	.090	2.22E+04	
.089	532.6	.092	2.22E+04	
. 114	524.2	. 094	2.18E+04	
. 140	523.0	.095	2.16E+04	
. 165	523.8	.097	2.17E+04	
. 317	523.4	. 107	2.18E+04	
. 394	527.5	.112	2.19E+04	
. 470	533.3	.117	2.25E+04	
.546	534.1	. 122	2.26E+04	
.622	526.4	. 127	2.25E+04	
.698	542.5	. 132	2.46E+04	
.775	542.5	.138	2.46E+04	
.851	679.1	. 147	5.08E+04	
.927	775.3	. 158	5.18E+04	
1.003	806.4	. 170	4.60E+04	
1.067	803.0	.177	3.41E+04	
1.156	854.6	. 186	3.30E+04	
1.232	845.4	. 193	3.18E+04	
1.257	854.6	. 196	2.97E+04	
1.321	880.1	.201	2.69E+04	
1.384	931.6	. 206	2.46E+04	
1.461	964.2	.212	2.412+04	
1.511	971.7	.215	2.31E+04	
1.562	962.7	.219	2.40E+04	
1.613	985.1	.223	2.55E+04	
1.689	1021.1	.228	2.39E+04	
1.765	1048.9	.234	2.33E+04	
1.816	1055.1	.237	2.11E+04	
1.867	1044.0	.240	2.42E+04	
1.918	1030.7	.244	2.33E+04	
1.994	1049.4	.249	2.38E+04	
2.070	753.8	.254	1.98E+04	

754.0

.256

1.99E+04

```
POINT SERIAL NO. 2096.010 (TIME= 247.50 SEC)
                                                                   POINT SERIAL NO. 3096.010 (TIME= 248.50 SEC)
LOOP PRESSURE (PE-3)
                                8.02 MPA
                                                                   LOOP PRESSURE(PE-3)
                                                                                                    8.00 MPA
                          547.4 K
FCY TEMPERATURE(TE-FCV-1T) 547.4 K
LHP INLET ENTHALPY 1.206E+06 J/KG
                                                                   FCV TEMPERATURE(TE-FCV-1T) 547.4 K
LHP INLET ENTHALPY 1.206E+06 J/KG
TEST SECTION:
                                                                   TEST SECTION:
    PRESSURE
                               3.58 MPA
                                                                        PRESSURE
                                                                                                   3.58 MPA
                           517.04 K
                                                                                               517.0° K
                                                                       MASS FLUX
    SAT TEMP
                           48.82 KG/SEC-M**2
.086
    MASS FLUX
                                                                                              48.83 KG/SEC-M**2
.086
    INLET QUALITY
                                                                        INLET QUALITY
                     1.206E+06 J/KG
                                                                        INLET ENTHALPY 1.206E+06 J/KG
    INLET ENTHALPY
QUENCH FRONT:
                                                                   QUENCH FRONT:
    ELEVATION
                                .869 M
                                                                       ELEVATION
                                                                                                    .872 M
                            .0025 M/SEC
    VELOCITY
                                                                        VELOCITY
                                                                                                 .0025 M/SEC
    QUALITY
                          .149
0.0 W
                                                                       QUALITY
                                                                                                 .150
0.0 W
NET LIP POWER TO FLUID
                                                                   NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                 TV
                           XE XA
                                                                   ELEVATION DZQF TV
                                                                                               XE XA
 (M)
            (M)
                    (K)
                                                                    (M)
                                                                               (M)
                                                                                        (K)
1.537
            .667 707.9 .218 .169
                                                                    1.842
                                                                               .970 843.5 .242 .165
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP XE HEAT FLUX
                                           HEAT LOSS
                                                                   ELEVATION
                                                                                TEMP XE HEAT FLUX
                                                                                                                  HEAT LOSS
 (M)
             (K)
                                 W/M##2
                                              W/M##2
                                                                                                    W/M**2
                                                                   (M)
                                                                                (K)
                                                                                                                   W/M##2
 .013
             574.1
                       .087
                             2.23E+04
                                                                    .013
                                                                                574.0
                                                                                         .087 2.232+04
 .051
             538.9
                       .089
                             2.28E+04
                                                                                          .089
                                                                     .051
                                                                                538.9
                                                                                                 2.28E+04
2.21E+04
                       .090
  .063
             527.8
                              2.21E+04
                                                                     -063
                                                                                527.8
                                                                                          .090
  .089
             532.6
                       .092
                               2.22E+04
                                                                     .089
                                                                                532.6
                                                                                          .092
                                                                                                    2.22E+04
 .114
                      .094
                                                                     .114
             524.2
                              2.18E+04
                                                                                524.2
                                                                                          .093
                                                                                                    2.18E+04
 . 140
                       .095
                               2.16E+04
             523.0
                                                                     . 140
                                                                                522.9
                                                                                                   2.17E+04
                              2.17E+04
2.18E+04
                       .097
  . 165
             523.8
                                                                                523.8
                                                                     . 165
                                                                                          .097
                                                                                                    2.17E+04
                                                                     .317
  .317
             523.4
                       . 107
                                                                                523.4
                                                                                          .107
                                                                                                   2.18E+04
 .394
             527.5
                       .112
                                2.20E+04
                                                                     . 394
                                                                                          .112
                                                                                527.5
                                                                                                  2.20E+04
  .470
             533.3
                       .117
                               2.25E+04
                                                                                          .117
                                                                     .470
                                                                                533.2
                                                                                                    2.25E+04
 .546
                       .122
             534.1
                               2.27E+04
                                                                     .546
                                                                                534.0
                                                                                          .122
                                                                                                    2.27E+04
  .622
             526.4
                       ,127
                               2.25E+04
                                                                     . 522
                                                                                526.3
                                                                                           .127
                                                                                                    2.25E+04
 .698
             542.4
                       .132
                               2.48E+04
                                                                                                 2,47E+04
                                                                     .698
                                                                                542.2
                                                                                          .132
                              2.46E+04
5.00E+04
5.47E+04
  .775
             542.4
                       .138
                                                                     .775
                                                                                542.2
                                                                                                 2.45E+04
                                                                                           . 138
 .851
             655.1
                       .147
                                                                     .851
                                                                                629.4
                                                                                          . 146
                                                                                                4.92E+04
  .927
             769.8
                       . 158
                                                                     .927
                                                                                          .158
                                                                                763.1
                                                                                                5.72E+04
                              4.72E+04
 1.003
             804.5
                       .170
                                                                                                 4.84E+04
                                                                    1.003
                                                                                          .170
                                                                                802.5
                       .178
 1.067
             802.1
                              3.47E+04
                                                                                          .178
                                                                                                 3.55E+04
                                                                    1.067
                                                                                801.1
 1.156
             853.8
                       . 187
                              3.33E+04
                                                                                                 3.41E+04
3.20E+04
                                                                    1.156
                                                                                853.0
                                                                                          .188
                       . 194
 1.232
             844.8
                              3.17E+04
                                                                    1.232
                                                                                844.2
                                                                                          . 195
 1.257
             854.0
                       .197
                               3.04E+04
                                                                    1,257
                                                                                          . 198
                                                                                853.3
                                                                                                    3.20E+04
                       .202
             879.8
 1.321
                                2.73E+04
                                                                    1.321
                                                                                879.5
                                                                                           . 203
                                                                                                    2.84E+04
                       .207
 1.384
             931.5
                                2.49E+04
                                                                    1.384
                                                                                931.3
                                                                                          .208
                                                                                                    2.57E+04
 1.461
             964.1
                       .213
                               2.46E+04
                                                                    1.461
                                                                                963.9
                                                                                          .214
                                                                                                    2.49E+04
 1.511
             971.6
                       .216
                                2.32E+04
                                                                    1.511
                                                                                971.5
                                                                                          .218
                                                                                                    2.34E+04
 1.562
             962.6
                       .220
                               2,42E+04
                                                                    1.562
                                                                                962.5
                                                                                          .222
                                                                                                    2.46E+04
            984.9
                       .224
 1.613
                               2.57E+04
                                                                    1.613
                                                                                          .225
                                                                                984.7
                                                                                                    2.59E+04
            1021.0
 1.689
                       .229
                               2.41E+04
                                                                    1.689
                                                                               1020.9
                                                                                          .231
                                                                                                    2.43E+04
 1.765
            1048.8
                       .235
                               2.34E+04
                                                                    1.765
                                                                               1048.8
                                                                                          .237
                                                                                                    2.35E+04
 1.816
            1055.1
                       .238
                              2.13E+04
                                                                    1.816
                                                                               1055.0
                                                                                          .240
                                                                                                    2.15E+04
                              2.43E+04
2.35E+04
2.39E+04
                       .242
 1.867
            1043.9
                                                                    1.867
                                                                               1043.8
                                                                                          .243
                                                                                                    2.441+04
                      .245
 1.918
            1030.6
                                                                    1.918
                                                                               1030.5
                                                                                          .247
                                                                                                    2.37E+04
 1.994
            1049.3
                      .251
                                                                   1.994
                                                                               1049.3
                                                                                          .252
                                                                                                    2.40E+04
```

2.070

754.1

.258

2.01E+04

756.4

.272

1.99E+04

INEL POST-CHE EXPERIMENT NO. 96

INEL POST-CHE EXPERIMENT NO. 96 POINT SERIAL NO. 1096.020 (TIME= 256.50 SEC) POINT SERIAL NO. 2096.020 (TIME= 258.50 SEC) LOOP PRESSURE(PE-3) 7.96 MPA LOOP PRESSURE(PE-3) 7.96 MPA FCV TEMPERATURE (TE-FCV-1T) 547.0 K FCV TEMPERATURE (TE-FCV-11) 546.9 K 1.204E+06 J/kG 1.204£+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: 3.58 MPA PRESSURE 3.58 MPA PRESSURE SAT TEMP SAT TEMP 517.05 K 517.06 K 49.11 KG/SEC-M**2 MASS FLUX 49.18 KG/SEC-M**2 MASS FLUX INLET QUALITY .085 INLET QUALITY .084 INLET ENTHALPY 1.204E+06 J/KG 1.204E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .901 M ELEVATION .919 M VELOCITY .0094 M/SEC VELOCITY .0094 M/SEC QUALITY . 152 QUALITY . 156 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (K) (M) . 331 .202 .182 1.537 1.232 580.1 .617 706.2 .236 .183 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT LOSS HEAT FLUX (K) W/M##2 W/M##2 H/M**2 W/M**2 (M) (M) (K) .086 .013 573.8 2.21E+04 .013 573.7 .085 2.21E+04 2.22E+04 .051 538.3 .088 .051 538.3 .088 2.23E+04 527.5 .089 2.21E+04 .063 527.5 .089 2.21E+04 .063 .089 532.2 .091 2.23E+04 .089 532.1 .090 2.22E+04 523.9 2.22E+04 . 114 523.9 .092 2.20E+04 . 114 .092 . 140 522.8 .094 2.20E+04 . 140 522.8 .094 2.20E+04 523.7 .096 2.19E+04 523.6 .095 2.19E+04 . 165 . 165 .317 . 105 523.2 . 106 2.20E+04 .317 523.1 2.21E+04 .394 527.1 .111 2.21E+04 . 394 527.0 .110 2.23E+04 .470 532.4 .116 2.27E+04 .470 532.1 .115 2.26E+04 .546 533.3 .121 2.27E+04 .546 533.0 . 120 2.26E+04 .126 .622 525.6 ' 2.24E+04 .622 525.4 . 126 2.24E+04 . 131 .698 .698 540.2 2.362+04 539.6 . 131 2.37E+04 .775 540.1 . 137 2.40E+04 .775 539.5 . 136 2.38E+04 . 144 .851 583.6 4.06E+04 569.0 .851 . 143 3.63E+04 . 157 .158 .927 711.4 7.22E+04 .927 648.2 9.30E+04 1.003 776.0 .172 6.66E+04 1,003 765.9 . 175 6.56E+04 4.33E+04 067 786.5 . 183 1.067 782.6 . 186 4.96E+04 . 194 1.156 841.3 3.93E+04 1.156 837.1 . 198 4.23E+04 .202 1,232 834.4 3.448+04 3.68E+04 1,232 832.2 .207 .210 1.257 843.0 .205 3.88E+04 1.257 839.6 4.128+04 1.321 873.0 .212 3.34E+04 1.321 871.7 .217 3.40E+04 1.384 927.3 .218 3.16E+04 1.384 927.0 .223 3.00E+04 961.6 .225 2.93E+04 .230 1.461 1.461 961.5 2.62E+04 2.67E+04 .234 1.51 969.3 .229 1.511 969.1 2.45E+04 960.2 .233 2.87E+04 1.562 1.562 960.1 .238 2.65E+04 1.613 .237 2.93E+04 981.4 1.613 980.6 .242 2.75E+04 .248 1.689 1019.0 .244 2.73E+04 1.689 1018.7 2.59E+04 1047.8 .250 .253 1.765 2.51E+04 1.765 1047.7 2.46E+04 1.816 1054.0 .254 2.44E+04 1054.0 1.816 .257 2.32E+04 1.867 1042.4 .257 2.52E+04 1042.2 1.867 .261 2.46E+04 1.918 1029.1 .261 2.56E+04 1.918 1028.8 .264 2.52E+04 .267 1.994 1048.1 2.44E+04 1.994 1047.7 .270 2.45E+04

2.070

757.2

.275

2.07E+04

POINT SERIAL NO. 3096.021 (TIME= 258.50 SEC)

(INFERRED VAPOR TEMP)

(INFERRED VAPOR TEMP) TV ELEVATION DZQF (M) (M) (K)

814.0 .259 .182 1.842 .922

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOS
(M)	(K)		W/M##2	W/M##2
.013	573.7	.085	2.21E+04	
.051	538.3	.088	2.23E+04	
.063	527.5	.089	2.21E+04	
.089	532.1	.090	2.22E+04	
. 114	523.9	.092	2.20E+04	
. 140	522.8	.094	2.20E+04	
. 165	523.6	.095	2.19E+04	
.317	523.1	. 105	2.21E+04	
. 394	527.0	.110	2.23E+04	
.470	532.1	. 115	2.26E+04	
.546	533.0	. 120	2.265+04	
.622	525.4	. 126	2.24E+04	
.698	539.6	.131	2.37E+04	
.775	539.5	. 136	2.38E+04	
.851	569.0	. 143	3.63E+04	
.927	648.2	. 158	9.30E+04	
1.003	765.9	. 175	6.56E+04	
1.067	782.6	. 186	4.96E+04	
1.156	837.1	. 198	4.23E+04	
1.232	832.2	.207	3.68E+04	
1.257	839.6	.210	4.12E+04	
1.321	871.7	.217	3.40E+04	
1.384	927.0	.223	3.00E+04	
1.461	961.5	.230	2.62E+04	
1,511	969.1	.234	2.45E+04	
1.562	960.1	.238	2.65E+04	
1.613	980.6	.242	2.75E+04	
1.689	1018.7	. 248	2.59E+04	
1.765	1047.7	. 253	2.46E+04	
1.816	1054.0	.257	2.32E+04	
1.867	1042.2	.261	2.46E+04	
1.918	1028.8	. 264	2.525+04	
1.994	1047.7	.270	2.45E+04	
2.070	757.2	.275	2.07[+04	

POINT SERIAL NO. 1096.031 (INFERRED VAPOR TEMP)	(TIME= 269	.50 SEC)
LOOP PRESSURE(PE-3)	7.96	MPA
FCV TEMPERATURE (TE-FCV-11)	546.7	
LHP INLET ENTHALPY	1,203E+06	
TEST SECTION:		
PRESSURE	3.59	MPA
SAT TEMP	517.10	K
MASS FLUX	49.40	KG/SEC-M**2
INLET QUALITY	.084	
INLET ENTHALPY	1.203E+06	J/KG
QUENCH FRONT:		
ELEVATION	1,007	M
VELOCITY	.0067	M/SEC
QUALITY	. 164	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF

(M)	(M)	(K)		
1.232	. 225	540.0 .202	. 193	
WALL TEMPER	RATURE MEA	SUREMENT LOCA	ATION INFORMAT	ON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	573.5	.085	2.22E+04	
.051	537.8	.087	2.22E+04	
.063	527.1	.088	2.21E+04	
.089	531.6	.090	2.23E+04	
. 114	523.4	.091	2.22E+04	
. 140	522.6	.093	2.21E+04	
. 165	523.4	.095	2.21E+04	
.317	522.8	. 105	2.22E+04	
. 394	526.3	.110	2.23E+04	
. 470	531.1	. 115	2.26E+04	
. 546	532.0	. 120	2.26E+04	
.622	524.7	. 125	2.24F+04	
.698	537.3	. 130	2.33[+04	
.775	536.7	. 135	2.38E+04	
.851	557.7	. 141	2.79E+04	
.927	582.2	. 150	4.97E+04	
1.003	657.1	. 164	7.35[+04	
1.067	743.8	. 176	5.83E+04	
1.156	810.4	. 190	4.43E+04	
1.232	801.0	.202	6.22E+04	
1.257	810.6	.206	4.86E+04	
1.321	850.5	.214	4.16E+04	
1.384	904.7	.222	4.53E+04	
1.461	942.8	.233	4.48E+04	
1.511	951.9	.239	4.09E+04	
1.562	942.4	. 245	4.29E+04	
1.613	964.9	.251	4.01E+04	
1.689	1005.0	.260	3.82E+04	
1.765	1037.5	.269	3.52E+04	
1.816	1042.7	.274	3.45E+04	
1.867	1033.0	.279	3.44E+04	
1.918	1019.4	.284	3.46E+04	
1.994	1041.4	.291	3.10E+04	
2.070	757.3	.298	2.36E+04	

757.5

.297

2.35E+04

POINT SERIAL NO. 3096.030 (TIME= 268.50 SEC) POINT SERIAL NO. 2096.030 (TIME= 268.50 SEC) LOOP PRESSURE(PE-3) 7.97 MPA LOOP PRESSURE(PE-3) 7.97 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-17) 546.7 K 546.7 K 1.203E+06 J/KG LHP INLET ENTHALPY 1,203E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: 3.59 MPA PRESSURE 3.59 MPA PRESSURE 517.10 K SAT TEMP 517.10 K SAT TEMP 49.42 KG/SEC-M**2 MASS FLUX 49.42 KG/SEC-M**2 MASS FLUX INLET QUALITY INLET QUALITY .084 .084 INLET ENTHALPY INLET ENTHALPY 1.203E+06 J/KG 1.203E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION 1.000 M ELEVATION 1.000 M .0067 M/SEC VELOCITY .0067 M/SEC VELOCITY . 164 QUALITY QUALITY . 164 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV ELEVATION DZQF TV XE XA XE XA (M) (M) (K) (M) (M) (K) 1.537 .537 1.842 .842 793.0 .276 .197 658.8 .242 .198 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 (M) W/M##2 W/M**2 (K) .013 573.5 .085 2.21E+04 .013 573.5 .085 2.21E+04 .051 537.9 .087 2.22E+04 .051 537.9 .087 2.22E+04 .063 527.2 .088 2.21E+04 .063 527.2 .088 2.21E+04 .089 .090 2.23E+04 .089 531.7 .090 2.23E+04 531.7 . 114 523.4 .091 2.22E+04 . 114 523.4 .091 2.22E+04 . 140 522.6 .093 2.21E+04 . 140 522.6 .093 2.21E+04 . 165 523.5 .095 2.21E+04 . 165 .095 2.21E+04 523.5 .317 . 105 .317 . 105 522.8 2.21E+04 522.8 2.21E+04 .110 .110 . 394 526.4 2.23E+04 . 394 526.4 2.23E+04 .4711 531.2 .115 2.26E+04 .470 531.2 . 115 2.26E+04 .546 532.1 . 120 2.26E+04 .546 532.1 . 120 2.26E+04 . 125 .622 524.8 . 125 2.24E+04 .622 524.8 2.24E+04 . 130 .698 .130 .698 537.4 2.33E+04 537.4 2.33E+04 .775 537.0 . 135 2.38E+04 .775 537.0 . 135 2.38E+04 .851 558.5 . 141 2.85E+04 .851 558.5 . 141 2.85E+04 . 150 .927 586.0 5.32E+04 .927 586.0 . 150 5.32E+04 . 165 684.5 684.5 . 165 7.55E+04 1,003 7.55E+04 1.003 1.067 748.6 .177 5.69E+04 1.067 .177 5.69E+04 748.6 1.156 812.9 . 191 4.42E+04 .191 1.156 812.9 4.42E+04 1.232 .202 5.81E+04 805.6 1.232 805.6 .202 5.81E+04 .206 1.257 4.85E+04 813.6 1.257 813.6 .206 4.85E+04 1.321 852.7 .215 4.18E+04 1.321 852.7 .215 4.18E+04 1.384 907.2 .223 4.50E+04 1.384 907.2 .223 4.50E+04 945.1 4.33E+04 1.461 .233 1.461 945.1 .233 4.33E+04 954.0 .239 1.511 3.99E+04 1.511 954.0 .239 3.99E+04 944.6 .245 4.20E+04 1.562 1,562 944.6 .245 4.20E+04 1.613 966.8 .251 3.96E+04 1.613 966.8 .251 3.96E+04 1.689 1006.7 .260 3.79E+04 3.79E+04 1.689 1006.7 .260 1.765 1038.9 .268 3.48E+04 1.765 1038.9 .268 3.48E+04 1044.2 1.816 .273 3.42E+04 1.816 1044.2 .273 3.42E+04 1.867 1034.2 .278 3.40E+04 1.867 1034.2 .278 3.40E+04 1.918 1020.7 .284 3.43E+04 1.918 1020.7 .284 3.43E+04 1.994 1042.3 .291 3.08E+04 .291

1.994

2.070

1042.3

757.5

.297

3.08E+04

2.35E+04

	HEE FOO!	- Dill Fair	MITTER HOLE			111111111111111111111111111111111111111	Contract Lord	L. C.	110, 50	
POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	IL NO. 109 IAPOR TEMP IRE(PE-3) ITURE(TE-FC INTHAL PY IN: IRE IMP ILUX QUALITY ENTHAL PY IT: ION TY Y FER TO FLUI	96.041 () CV-1T)	7.97 MPA 546.7 K 1.203E+06 J/KC 3.58 MPA 517.04 K 49.54 KG/S .084 1.203E+06 J/KC 1.081 M .0079 M/SE .167	SEC-M**2	POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET UNLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	L NO. 209 APOR TEMP) RE(PE-3) TURE(TE-FC NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION TY Y ER TO FLUI	06.041 CV-1T)	7. 546 1.203E+ 3. 517. 49. 1.203E+ 1.0	79.50 SEC 97 MPA .7 K 06 J/KG 58 MPA 04 K 54 KG/SEC 84 06 J/KG 181 M 179 M/SEC 69) -M**2
VAPOR TEMPE	RATURE MEA	ASUREMENT	LOCATION INFOR	RMATION	VAPOR TEMPE	RATURE MEA	SUREMENT	LOCATIO	N INFORMA	TION
(INFERRED V	APOR TEMP)			(INFERRED V	APOR TEMP)				
ELEVATION (M)	DZQF (M)	(K)	XE XA	RMATION	ELEVATION (M)	DZQF (M)	(K)	XE X	A	
107	(111)	1				()	101			
1.232	. 151	520.0 .	202 .200		1.537	.456	605.0	.238 .2	07	
WALL TEMPER	ATURE MEAS	SUREMENT L	OCATION INFORM	MATION HEAT LOSS W/M**2	WALL TEMPER	ATURE MEAS	UREMENT	LOCATION	INFORMAT	ION
ELEVATION	TEMP	XE	BEAT FLUX	HEAT LOSS W/M**2	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOSS
(11)	(,)		H/H2	H/H2	(6)	()			/ 14 2	W/M==2
.013	573.2	.085	2.24E+04		.013	573.2	.085	2.	23E+04	
.051	537.4	.087	2.21E+04		.051	537.5	.087	2.	23E+04	
.063	520.8	.088	2.231+04		.063	520.8	.088	2.	225+04	
114	522 0	.090	2 225+04		114	523.0	.090	2.	225 +04	
140	522.4	.093	2.22E+04		140	522.4	.093	2	20F+0h	
. 165	523.2	.095	2.20E+04		. 165	523.3	.095	2.	21E+04	
.317	522.5	. 105	2.22E+04		.317	522.5	. 105	2.	22E+04	
. 394	525.7	,110	2.24E+04		. 394	525.8	. 110	2.	23E+04	
.470	530.2	. 115	2,26E+04		.470	530.2	.115	2.	26E+04	
.546	530.9	. 120	2.26E+04		.546	531.0	. 120	2.	27E+04	
.022	524.1	120	2.241.104		.022	525.0	120	2.	241+04	
775	534.5	135	2.33E+04		775	534.6	135	2	33F+04	
.851	551.6	.141	2.45E+04		.351	551.9	. 141	2.	56E+04	
.927	563.6	. 147	2.97E+64		.927	564.7	. 147	3.	03E+04	
1.003	547.7	. 154	3.33E+04		1.003	559.7	, 156	Ls.	70E+04	
1.067	682.6	. 164	7.88E+04		1.06/	683.5	, 166	6.	73E+04	
1.156	783.3	. 182	5.37E+04		1.156	775.7	. 181	4.	10E+04	
1.232	737.1	. 202	1.241+05		1.232	736.9	. 195	9.	12E+04	
1.227	827 1	219	6.01E+04		1 321	828 2	210	2.	085+04	
1.384	875.4	.228	5.09E+04		1.384	878.4	218	4	42F+04	
1.461	912.8	.241	5.84E+04		1.461	915.6	.228	14.	56E+04	
1.511	925.3	.249	5.30E+04		1.511	926.9	.235	14.	19E+04	
1.562	914.5	.257	5.90E+04		1.562	916.2	.241	4.	49E+04	
1.613	940.9	.266	5.34E+04		1.613	942.4	.248	4.	24E+04	
1.689	1010 1	297	4.081+04		1.689	1030 4	.257	4.	031+04	
1.816	1024.0	201	4. 27F+0h		1.816	1025.4	272	3.	68E+04	
1.867	1016.4	300	4.16E+04		1 867	1017.7	277	3.	70F+0h	
1.918	1002.2	.306	4.04E+04		1.918	1004.9	.283	3	57E+04	
1.994	1028.9	.315	3.54E+04		1.994	1030.8	.290	3.	31E+04	
2.070	754.2	. 322	2.64E+04		2.070	754.7	.297	2.	50E+04	

DOLLET SERVE	NO 2006 051	/ TIME = 270	E0 8E01	DE THE SE	DIAL NO 20	006 050	(TIME= 287.50 :	1019
LINEFERED VA	NO. 3096.041.	(11ME- 513	.50 SEC) MPA K J/KG MPA K KG/SEC-M##2 J/KG M M/SEC W INFORMATION	FOIRT SE	TRIAL NO. 21	090.000	(TIME - 201.20)	360)
LOOP PRESSUR	ELPE-31	7.97	MPA	LOOP PRE	ESSURE(PE-3)		7.99 MPA	
FCV TEMPERATI	URELTE-FCV-111	546.7	K	FCV TEMP	PERATURE (TE-	FCV-1T)	546.9 K	
THE INIET EN	THAI PY	1 203E+06	1/KG	THP INLE	T ENTHALPY		1.204E+06 J/K	G
TEST SECTION	, instru	1.2032.00	37.00	IFST SEC	CITON:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
PRESSUR	F	3.58	MPA	PRE	SSURE		3.58 MPA	
SAT TEM	P	517.04	K	SAT	TEMP		517.06 K	
MASS FI	IIX	49 54	KG/SFC-M##2	MAS	SS FLUX		49.56 KG/	SEC-M##2
INLET	HALITY	084	10,000 11 6	INI	ET QUALITY		084	
INLET E	NTHAL PY	1.2035+06	1/KG	INI	ET ENTHAL PY		1.204E+06 J/K	G
OUENCH FRONT	i i i i i i i i i i i i i i i i i i i	115005	57.10	QUENCH F	RONT:			
FIFVALL	ON	1.081	M	ELE	VATION		1 15 M	
VELOCIT	Y	.0079	M/SEC	VEL	OCITY		. 179 M/SI	EC
QUALITY		. 169		QUA	ALITY		. 185	
NET LHE POWE	R TO FLUID	0.0	H	NET LHP	POWER TO FLU	HD	0.0 W	
LILENS TO MAKE	ATHOR MEACHDEN	CHT OCATION	INCORNATION.	WARDON TE	MDEDATUDE M	ACHDEMENT	LOCATION INFO	DHATION
VAPOR LIMPER	ATURE MEASUREM	ENT LUCATION	INFORMATION	FLEVATIO	MPERATURE MI	LASUKEMENT	LOCATION INFO	MAITON
(INVERSES VA	POR TEMP)	UF VA		ELEVATIO	IN DEQT	141	AE AA	
ELEVATION	DZQF TV	XL XA		(M)	(M)	(K)		
(M)	(M) (K)			1.537	352	560 5	238 217	
1.842	.761 760.0	.275 .203	NFORMATION FLUX HEAT LOSS **2 W/M**2 E+04			207.2		
				WALL TEM	APERATURE MEA	ASUREMENT	LOCATION INFORM	MATION
WALL TEMPERA	TURE MEASUREME	NT LOCATION I	NFORMATION	ELEVATIO	ON TEMP	XE	HEAT FLUX	K HEAT LOSS
ELEVATION	TEMP	XE HEAT	FLUX HEAT LOSS	(M)	(K)		W/M**2	W/M**2
(M)	(K)	W/M	**2 W/M**2	100				
				.013	5/3.0	.065	2.23E+04	
.013	573.2	085 2.23	E+04	.051	5.1.2	.088	2.23E+04	
.051	537.5	087 2.23	£ +U4	.063	520.6	.089	2.225+04	
.063	526.8	088 2.22	E+04	.089	531.1	.090	2.23E+04	
.089	531.3	090 2.22	E+04	.114	522.0	.092	2.216+04	
114	523.0	003 2.22	E+04	165	502 0	.094	2 205 404	
. 140	522.3	095 2.20	E + O tı	317	522 1	105	2 225+04	
217	523.3	105 2 22	F+04	394	525 5	110	2 225+04	
300	625 8	110 2 23	E+04	670	520 7	115	2 255+04	
h70	530.2	115 2.25	F+04	546	530.4	120	2.26F+04	
546	531 0	120 2.27	F+04	.622	523.7	125	2 23E+04	
622	524.1	125 2.24	E+04	.698	534.4	. 130	2.31E+04	
69.	535.4	130 2.32	F+04	.775	533.5	. 136	2.33E+04	
775	534.6	135 2.33	E+04	.851	549.1	. 141	2.51E+04	
.851	551.9	141 2.56	E+04	.927	558.8	. 147	2.76E+04	
.927	564.7 .	147 3.03	E+04	1.003	542.5	. 153	2.82E+04	
1.003	559.7 .	156 4.70	E+04	1.067	635.1	. 162	6.43E+04	
1.067	683.5 .	166 6.73	E+04	1.156	732.7	.178	6.02E+04	
1.156	775.7	181 4.10	E+04	1.232	648.8	. 196	9.58E+04	
1.232	736.9	195 9.12	E+04	1.257	736.8	. 202	6.34E+04	
1.257	772.5	201 5.88	E+04	1.321	813.6	.211	4.04E+04	
1.321	828.2	210 4.08	E+04	1.384	861.8	.219	4.165+04	
1.384	878.4	218 4.42	E+04	1.460	898.1	.228	4.33E+04	
1.460	915.6	228 4.56	E+04	1.511	911.3	.235	3.98E+04	
1.511	926.9	235 4.19	E+04	1.562	899.0	.241	4.268+04	
1.562	916.2	241 4.49	E+04	1.613	927.6	.247	3.92E+04	
1.613	942.4	248 4.24	E+04	1.689	1000 3	.255	3.548+04	
1.689	1022 .	201 4.03	E+04	1.705	1009.3	.263	3.431+04	
1.765	1025.4	272 3.88	E+04	1.010	1014.6	, 208	3.216+04	
1.010	1025.4	277 3.08	E+04	1.867	005.4	270	3.426+04	
1.007	1000 0	293 3.70	E+04	1.918	1023 4	285	3. 122 +04	
1.910	1004.9	200 3.37	E+04	2 030	752.5	201	2 425+04	
2.070	1017.7 1004.9 1030.8 754.7	207 2.50	F+04	2,070	152.5	. 291	2.421.04	
2.070	134.1	2.70	NFORMATION FLUX HEAT LOSS ***2 W/M**2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+0					

	1.11.2. 1.00		minent no. 30			111000 1000			101	
POINT SERIA	L NO. 30	96.050 (TIME= 291.50 SEC	1	POINT SERI	AL NO. 110	01.010	(TIME= 1	3.50 SEC	1
LOOP PRESSU	RE(PE-3)		7.96 MPA		LOOP PRESS	URE(FE-3)		7.	77 MPA	
FCV TEMPERA	TURE (TE-F	CV-IT)	546.9 K		FCV TEMPER	ATURE (TE-FO	CV-11)	525	0 K	
LHP INLET E	NTHALPY		1.204E+06 J/KG		LHP INLET	ENTHALPY		1.095E+	16 J/KG	
TEST SECTIO	IN:				TEST SECTI	ON:				
PRESSU	IRE		3.59 MPA		PRESS	URE			I MPA	
SALIE	MP		517.08 K		SAT T	EMP		4:,3.1	34 K	
MASS F	LUX		49.47 KG/SEC	-M**2	MASS	FLUX		23.1	9 KG/SEC	-Mu#5
INLET	QUALITY		.085		INLET	QUALITY		. 11	32	
INLE I	ENTHALPY		1.204E+06 J/KG		INLET	ENTHALPY		1.095E+	06 J/KG	
QUENCH FROM	LON		1 263 M		QUENCH FRO	NI:				
VELOCI	TV		0025 M/SEC		FLEVA	ITON		00	MISEC	
QUALIT	Y		199		OHALL	IV		,00	OS MY SEC	
NET LHP POW	ER TO FLU	10	0.0 W		NET LIP PO	WER TO FLU	D	0	0 W	
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION INFORMA	-M**2	VAPOR TEMP	FRATURE ME	SHREMENT	LOCATIO	INFORMA	TION
ELEVATION	DZQF	TV	XE XA		ELEVATION	DZQF	TV	XE X	\ \	
(M)	(M)	(K)			ELEVATION (M)	(M)	(K)			
1.842	.588	705.8	264 .206		1,232	. 995	761.9	.416 .3	12	
WALL TEMPER	ATURE MEA	SUREMENT L	OCATION INFORMAT	ION	WALL TEMPE	RATURE MEAS	SUREMENT	LOCATION	INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOSS
(M)	(K)		W/M**2	HEAT LOSS W/M**2	(M)	(K)		W	/M##2	W/M##2
.013	573.0	.085	W/M**2 2.22E+04 2.23E+04 2.22E+04 2.22E+04 2.21E+04 2.20E+04 2.20E+04 2.21E+04 2.25E+04 2.25E+04 2.25E+04 2.34E+04 2.34E+04 2.34E+04 2.54E+04 2.67E+04 6.29E+04 8.77E+04 6.31E+04 3.85E+04 3.85E+04 3.74E+04 3.85E+04 3.76E+04 3.76E+04 3.77E+04		ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .598 .775 .851 .927 1.003 1.067 1.156 .111 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	457.7	184	2 /	1F+0#	
.051	537.1	.088	2.23E+04		.051	461.6	189	2.1	5E+04	
.063	526.5	.089	2.22E+04		.063	457.5	. 191	2.5	4E+04	
.089	531.0	.090	2.23E+04		.089	469.4	. 194	2.6	55E+04	
. 114	522.8	.092	2.21E+04		. 114	464.8	. 198	2.0	51E+04	
. 140	522.3	.094	2.20E+04		. 140	457.6	.201	2.0	3E+04	
. 165	523.2	.095	2.20E+04		, 165	463.3	.207	6.	9E+04	
. 317	526.2	. 105	2.211+04		.31/	801.6	, 251	4.	34E+04	
670	520.4	110	2.225+04		. 394	858.8	. 269	4.	31E+04	
546	530.2	120	2 265+04		. 470	893.3	.286	4.	22E+04	
622	523.6	125	2 235+04		633	925.1	. 302	4.0	101-104	
.698	534.1	130	2 345+04		508	943.0	. 310	4.1	75 +04	
.775	533.1	.136	2.33E+04		775	978 B	310	3.6	8F+0h	
. 851	548.3	. 141	2.54E+04		.851	991.7	364	3 /	2F+0h	
.921	557.3	. 147	2.70E+04		.927	994.2	.377	3.	8E+04	
1.003	540.9	. 153	2.67E+04		1.003	982.6	. 389	2.9	9E+04	1.48E+03
1.067	619.6	. 161	6.01E+04		1.067	898.9	. 398	2.1	10E+04	1.48E+03
1.156	682.8	. 177	6.29E+04		1.156	934.7	.409	2.1	10E+04	2.37E+02
1.232	649.5	. 194	8.7/E+04			910.5	. 419	2.	11E+04	
1.207	201.2	.200	6.31E+04			927.2	.422	2.0	OE+04	
1 3Rh	857.6	217	3.000.00		4 4	930.6	. 431	2.	8E+04	
1.460	893 5	225	3 745 +04		1. 1.60	1001.7	. 440	2.1	35E+04	
1.511	906.9	.231	3.58E+04		1.400	1020.6	. 451	2.	75+04	
1.562	894.1	.236	3.86E+04		1 562	1000 4	.459	2.1	7E+04	
1.613	923.3	.242	3.86E+04 3.67E+04 3.41E+04 3.33E+04 3.10E+04 3.28E+04 2.91E+04 2.88E+04 2.36E+04		1.613	1021 2	407	3.0	08E+04	
1.689	969.0	.250	3.41E+04		1.689	1040.0	.487	2.1	16F+04	
1.765	1096.0	.257	3.33E+04		1.765	1044.0	, 498	2	8E+04	
1.816	1011.6	.262	3.10E+04		1.816	1033.3	. 505	2.1	6E+04	
1.867	1004.7	.267	3.281+04		1.867	998.8	,512	2.6	1E+04	
1.918	993.7	.272	2.91E+04		1.918	981.7	.519	2.4	3E+04	
1 001		270	2 886+04		1 004	007 1	530		TT LOS	
1.994	1021.7	.610	E. 00E 104		1.994	901.1	, 269	6	OL+U4	

(M)

1.537

(M)

.013

.051

.063

.089

.114

. 140

. 165

.317

. 394

.470

.546

.622

.698

.775

.851

.927

1.003

1.067

1.156

1.232

1.257

1,321

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

981.5

986.8

993.8

.510

.520

.529

2.51E+04

2.36E+04

2.32E+04

INCL POST-CHE EXPERIMENT NO. 161 INEL POST-CHE EXPERIMENT NO. 101 POINT SERIAL NO. 2101.010 (TIME= 153.50 SEC) POINT SERIAL NO. 2101.010 (TIME= 153.50 SEC) LOOP PRESSURE(PE-3) 7.97 MPA 100P PRESSURE(PE-3) 7.97 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 524.9 K 524.9 K LHP INLET ENTHALPY 1.095E+06 J/KG LHP INLET ENTHALPY 1.095E+06 J/KG TEST SECTION: TEST SECTION: .81 MPA PRESSURE .81 MPA PRESSURE SAT TEMP 443.84 K SAT TEMP 443.84 K MASS FLUX 23.69 KG/SEC-M**2 MASS FLUX 23.69 KG/SEC-M**2 INLET QUALITY . 182 INLET QUALITY . 182 INLET ENTHALPY 1.095E+06 J/KG INLET ENTHALPY 1.095E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .237 M ELEVATION .237 M VELOCITY .0033 M/SEC VELOCITY .0033 M/SEC QUALITY .227 QUALITY .227 NET LHP POWER TO FLUID NET LHP POYER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (K) 1.300 829.1 .451 .320 1.537 1.300 829.1 .451 .320 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS XE W/:4*#2 (K) W/M##2 (M) W/M##2 W/M##2 (K) . 184 458.1 2.55E+04 . 184 .013 458.1 2.55E+04 . 189 461.7 2.65E+04 .051 461.7 . 189 2.65E+04 . 191 457.4 2.55E+04 .063 . 191 457.4 2.55E+04 . 194 . 194 469.5 2.68E+04 .089 469.5 2.68E+04 465.0 . 198 2.69E+04 . 198 . 114 465.0 2.69E+04 .201 457.6 .201 2.65E+04 . 140 457.6 2.65E+04 6.18E+04 463.7 .207 . 165 463.7 .207 6.18E+04 .249 801.5 4.21E+04 . 317 801.5 .249 4.21E+04 . 394 858.8 .266 4.22E+04 858.8 .266 4.22E+04 893.6 .282 4.04E+04 .470 .282 4.04E+04 893.6 924.9 .298 3.87E+04 .546 924.9 .298 3.87E+04 . 314 943.5 3.83E+04 .622 943.5 . 314 3.83E+04 . 329 962.7 3.65E+04 .698 962.7 .329 3.65E+04 978.1 . 343 3.57E+04 .775 978.1 . 343 3.57E+04 991.5 .357 3.32E+04 .357 .851 991.5 3.32E+04 993.9 .370 3.13E+04 993.9 .927 .370 3.13E+04 982.2 .382 2.84E+04 1.003 982.2 . 382 2.84E+04 898.5 .390 2.32E+04 1.815+03 1.067 898.5 .390 2.32E+04 1.81E+03 934.3 .401 4.09E+02 2.32E+04 1.156 934.3 .401 2.32E+04 4.09E+02 910.4 .411 2.33E+04 1.232 910.4 .411 2.33E+04 927.0 414 2.52E+04 1.257 927.0 .414 2.52E+04 930.3 .422 .56E+04 1.321 930.3 .422 2.56E+04 1001.3 .431 2.90E+04 1.384 1001.3 .431 2.90E+04 1020.3 .443 2.93E+04 1.460 1020.3 .443 2 93E+04 1018.2 .451 2.80E+04 1.511 1018.2 .451 .80E+04 1000.1 .458 2.91E+04 1.562 1000.1 .458 2.91E+04 1020.9 .466 2.89E+04 1020.9 1.613 .466 2.89E+04 1039.8 .478 2.89E+04 1.689 1039.8 .478 2.89E+04 1043.8 .489 2.77E+04 1.765 1043.8 .489 2.77E+04 1033.0 .496 2.54E+04 1.816 1033.0 .496 2.54E+04 998.5 .503 2.63E+04 1.867 998.5 .503 2.63E+04

981.5

986.8

993.8

.510

.520

.529

2.51E+04

2.36E+04

2.32E+04

1.918

1.994

2.070

POINT SERI	AL NO. 316	01.010 (1	IME= 154.50 SEC)	POINT SERI	AL NO. 11	01.020 (1	TIME= 194.50 SE	(C)
FCV TEMPER LHP INLET TEST SECTI PRESS SAT T MASS INLET INLET QUENCH FRO ELEVA VELOC QUALIT	ENTHALPY ON: URE EMP FLUX QUALITY ENTHALPY NT: TION	,	7.99 MPA 524.9 K .094E+06 J/KG .81 MPA 443.84 K 23.69 KG/SEC .182 .094E+06 J/KG .240 M .0033 M/SEC .227 0.0 W	-M**2	LOOP PRESS FCV TEMPER LHP INLET TEST SECTI- PRESS SAT T. MASS INLET INLET QUENCH FRO ELEVA VFLOC QUALT NET LHP PO	ATURE(TE-FI ENTHALPY ON: URE EMP FLUX QUALITY ENTHALPY NT: TION ITY		7.98 MPA 523.4 K 1.087E+06 J/KG .81 MPA 443.87 K 23.58 KG/SE .178 1.087E+06 J/KG .320 M .0020 M/SEC .228 0.0 W	
VAPOR TEMP ELEVATION	DZQF	TV X	OCATION INFORMA E XA	TION	VAPOR TEMP	ERATURE ME		OCATION INFORM	MATION
(M)	(M)	(K)			(M)	(M)	(K)		
1.841	1.601	868.5 .4	95 .341		1,232	.912	738.8 .3	384 .292	
			CATION INFORMAT		WALL TEMPE	RATURE MEA	SUREMENT LO	CATION INFORMA	TION
ELEVATION (M)	TEMP (K)	XE	HEAT FLUX W/M**2	HEAT LOSS W/M**2	ELEVATION (M)	TEMP (K)	XE	HEAT FLUX W/M**2	HEAT LOSS W/M##2
.013	457.9	. 184	2.57E+04		,013	454.9	.180	2.47E+04	
.051	461.4	. 189	2.64E+04		.051	454.9	. 185	2.51E+04	
.063	457.2	. 191	2.53E+04		.063	453.0	. 187	2.48E+04	
.089	469.2	. 194	2.65€+04 .		.089	461.5	. 190	2.54E+04	
. 114	464.7	. 198	2.65E+04		. 114	456.0	. 194	2.55E+04	
. 140	457.4	.201	2.62E+04		. 140	451.9	. 197	2 49E+04	
. 165	799.9	.248	5.88E+04 4.29E+04		. 165	453.7	.200	51E+04	
. 394	856.9	.265	4.23E+04		.317	794.0	. 228	4.33E+04	
.470	891.9	.281	4.05E+04		.470	831.3	.244	3.91E+04 3.80E+04	
.546	923.4	.297	3.90E+04		.546	865.1	.275	3.67E+04	
.622	942.1	.313	3.88E+04		.622	889.2	.289	3.43E+04	
.698	961.4	.328	3.67E+04		.698	916.7	.303	3.368+04	
.775	976.9	. 342	3.58E+04		.775	937.2	. 316	3.30E+04	
.851	990.6	. 356	3.33E+04		.851	955.7	.330	3.29E+04	
1,003	993.3 981.8	.369	3.14E+04		.927	963.9	. 343	3.14E+04	
1.067	898.5	.390	2.87E+04 2.33E+04	1.78E+03	1.003	962.8	. 355	2.97E+04	
1.156	934.5	.401	2.33E+04	3.78E+02	1, 156	893.2 930.9	- 364	2.51E+04	1.40E+03
1.232	910.4	.410	2.32E+04	3.702.02	1.232	905.3	.376	2.57E+04 2.56E+04	5.91E+02
1.257	927.0	.413	2.51E+04		1.257	919.0	.390	2.77E+04	
1.321	930.3	,422	2.55E+C4		1,321	922.4	.399	2.72E+04	
1.384	1000.9	. 431	2.88E+04		1.384	982.5	.409	2.88E+04	
1.460	1019.9	.442	2.91E+04		1.460	999.2	.420	2.90E+04	
1.511	1017.8	.450	2.77E+04		1.511	997.5	.428	2.71E+04	
1.562	999.7	.458	2.89E+04		1.562	980.5	.435	2.90E+04	
1.613	1020.5	.465	2.85E+04 2.84E+04		1.613	1001.3	. 443	2.92E+04	
1.765	1043.6	.488	2.73E+04		1.689	1021.5	.455	2.92E+04	
1.816	1032.9	.495	2.51E+04		1.765	1028.5	.466	2.84E+04	
1.867	998.4	.502	2.60E+04		1.867	988.0	.474	2.64E+04	
1.918	981.5	.509	2.53E+04		1.918	976.4	.488	2.75E+04 2.65E+04	
1.994	987.0	.518	2.34E+04						
2.070	994.0	.528	2.30E+04						
					1.994 2.070	987.1 888.3	. 499 . 525	2.55E+04 1.05E+05	

2.070

987.2

857.6

.496

.518

2.53E+04

8.37E+04

INEL POST-CHE EXPERIMENT NO. 101

INCL POST-CHE EXPERIMENT NO. 101 POINT SERIAL NO. 2101.020 (TIME= 194.50 SEC) POINT SERIAL NO. 3101.020 (TIME= 195.50 SEC) LOOP PRESSURE (PE-3) 7.96 MPA 7.98 MPA LOOP PRESSURE (PE-3) 523.8 K FCV TEMPERATURE (TE-FCV-1T) 523.8 K FCV TEMPERATURE (TE-FCV-1T) 1.089E+06 J/KG 1.089E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .81 MPA PRESSURE .81 MPA PRESSURE 443.86 K 443.87 K SAT TEMP SAT TEMP 23.61 KG/SEC-M**2 23.58 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .179 INLET QUALITY .179 1.069E+06 J/KG INLET ENTHALPY 1.089E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .320 M ELEVATION .322 M VELOCITY .0020 M/SEC VELOCITY .0020 M/SEC QUALITY .229 .229 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV ELEVATION DZQF TV XE XA ELEVATION DZQF XE XA (M) (M) (K) (M) (M) (K) 1.519 1.537 1.217 809.3 .427 .307 1.841 847.0 .471 .329 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 W/M##2 (K) W/M**2 (M) (K) (M) 2.50E+04 .013 454.8 2.50E+04 .013 454.9 . 181 . 181 . 186 . 186 2.51E+04 .051 455.0 2.51E+04 .051 455.1 .063 . 188 2.49E+04 .063 453.0 . 188 2.49E+04 453.1 .089 461.5 2.54E+04 . 191 2.54E+04 .089 461.6 . 191 . 194 . 194 2.54E+04 . 114 456.1 2.54E+04 . 114 456.2 . 140 . 198 2.49E+04 . 140 451.9 . 198 2.49E+04 452.0 453.9 2.52E+04 . 165 454.0 .201 2.52E+04 . 165 .201 .317 4.14E+04 617.8 .228 4.11E+04 .317 635.1 .228 .394 .245 .245 4.30E+04 793.2 4.34E+04 . 394 794.5 .261 .470 832.5 3.62E+04 .470 831.2 .261 3.61E+04 .546 .276 3.54E+04 .546 865.1 .276 3.54E+04 866.3 .622 890.0 3.38E+04 .289 3.38E+04 .622 891.0 .290 .698 .303 3.30E+04 917.3 .698 918.1 .303 3.29E+04 . 316 .775 3.24E+04 .775 936.7 937.5 .316 3.23E+04 .851 955.9 .329 3.23E+04 .851 955.1 .329 3.22E+04 .927 964.0 . 342 3.15E+04 963.3 . 342 3.14E+04 .927 962.6 . 354 2.95E+04 1.003 962.1 . 354 1.003 2.94E+04 2.50E+04 1.54E+03 892.6 1.067 892.8 . 363 1.067 . 363 2.49E+04 1.61E+03 1.156 930 9 .375 2.56E+04 5.00E+02 1.156 930.7 .375 2.55E+04 5.36E+02 1.232 905.3 . 386 2.54E+04 1.232 905.1 . 385 2.54E+04 918.9 .389 2.73E+04 1.257 918.7 . 389 1.257 2.72E+04 922.6 .398 2.70E+04 1.321 922.4 .398 1.321 2.69E+04 983.0 .408 2.85E+04 1.384 982.6 .407 1.384 2.83E+04 .419 2.87E+04 1.460 1.460 1000.1 999.7 .418 2.85E+04 1.511 998.4 .427 2.71E+04 1.511 998.0 .426 2.69E+04 1.562 981.2 . 434 2.86E+04 1.562 980.8 .433 2.84E+04 1.613 1002.1 .442 2.86E+04 1.613 1001.7 . 447 2.84E+04 1.689 1022.1 .453 2.84E+04 1.689 1021.7 .452 2.83E+04 1029.2 . 464 2.78E+04 1.765 1.765 1028.9 .463 2.77E+04 .472 1.816 1020.1 2.59E+04 1.816 1019.9 .471 2.58E+04 1.867 988.3 .479 2.72E+04 1.867 988.1 .478 2.71E+04 1.918 976.7 .486 2.61E+04 1,918 976.6 . 485 2.59E+04

1.994

2.070

987.2

850.7

.495

.517

2.52E+04

8.41E+04

599.7

.539

8.43E+04

```
POINT SERIAL NO. 1101.031 (TIME= 229.50 SEC)
                                                                       POINT SERIAL NO. 2101.030 (TIME= 229.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                  7.95 MPA
                                                                       LOOP PRESSURE(PE-3)
                                                                                                         7.95 MPA
                             524.2 K
FCV TEMPERATURE ( 1E-FCV-1T )
                                                                       FCV TEMPERATURE ( IE-FCV-11)
                                                                                                        524.6 K
LHP INLET ENTHALPY
                            1.091E+06 J/KG
                                                                                                     1.093E+06 J/KG
                                                                       LHP INLET ENTHALPY
TEST SECTION:
                                                                       TEST SECTION:
                                                                                                           .80 MPA
                                   .80 MPA
     PRESSURE
                                                                            PRESSURE
                              443.81 K
                                                                                                       443.81 K
     SAT TEMP
                                                                            SAT TEMP
                                                                                                       22.93 KG/SEC-M**2
     MASS FLUX
                               22.93 KG/SEC-M**2
                                                                            MASS FLUX
     INLET QUALITY
                                                                            INLET QUALITY
                                 .180
                                                                                                         . 181
    INLET ENTHALPY
                             1.091E+06 J/KG
                                                                            INLET ENTHALPY
                                                                                                     1.093E+06 J/KG
QUENCH FRONT:
                                                                       QUENCH FRONT:
    ELEVATION
                                   .390 M
                                                                            ELEVATION
                                                                                                          .390 M
     VELOCITY
                                 .0020 M/SEC
                                                                            VELOCITY
                                                                                                         .0020 M/SEC
    QUALITY
                                  . 241
                                                                            QUALITY
                                                                                                         . 242
NET LHP POWER TO FLUID
                                  0.0 W
                                                                       NET LHP POWER TO FLUID
                                                                                                          0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                       ELEVATION DZQF TV
                                                                                                    XE XA
ELEVATION DZQF
                             XE
                                 XA
                                                                        (M)
                                                                                    (M)
                                                                                             (K)
 (M)
            (M)
                     (K)
                                                                        1.537 -
                                                                                  1,147 800.7 .430 .312
1,232
             .342
                    702.0
                           .385 .302
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       ELEVATION
                                                                                     TEMP
                                                                                             XE
                                                                                                          HEAT FLUX
                                                                                                                        HEAT LOSS
ELEVATION
             TEMP
                      XE
                                HEAT FLUX
                                               HEAT LOSS
                                                                         (M)
                                                                                     (K)
                                                                                                           W/M##2
                                                                                                                         W/M##2
                                   W/M##2
                                                 W/M##2
 (M)
              (K)
                                                                                               . 183
                                                                         .013
                                                                                     452.4
                                                                                                          2.48E+04
  .013
             452.5
                                  2.47E+04
                         . 182
                                                                         .051
                                                                                     452.3
                                                                                                . 188
                                                                                                          2.47E+04
  .051
             452.4
                        .187
                                  2.47E+04
                                                                                                          2.46E+04
                                                                         .063
                                                                                     450.9
                                                                                                . 190
                                                                         .089
                                                                                                . 193
              450.9
                                  2.47E+04
  .063
                         . 189
                                                                                     457.6
                                                                                                          2.50E+04
                                                                         . 114
  .089
             457.7
                        . 192
                                  2.49E+04
                                                                                     452.3
                                                                                                . 196
                                                                                                          2.49E+04
  .114
             452.4
                         . 196
                                  2.49E+04
                                                                                                .200
                                                                         . 140
                                                                                     450.1
                                                                                                          2.46E+04
                        .199
  . 140
              450.1
                                  2.46E+04
                                                                                                .203
                                                                         . 165
                                                                                     451.5
                                                                                                          2.46E+04
                                                                         .317
  . 165
              451.5
                         .203
                                  2.46E+04
                                                                                                .225
                                                                                     460.1
                                                                                                          2.83E+04
                                                                         .394
                                                                                                .243
                                                                                                          5.81E+04
  .317
              463.1
                         .225
                                  3.02E+04
                                                                                     635.9
  . 394
             632.8
                         .242
                                  5.05E+04
                                                                         .470
                                                                                     789.7
                                                                                                .262
                                                                                                          3.34E+04
  .470
              789.9
                         .260
                                  3.83E+04
                                                                         .546
                                                                                     827.3
                                                                                                .276
                                                                                                          3.34E+04
                        .275
                                                                                                .290
  .546
              826.9
                                  3.37E+04
                                                                         .622
                                                                                     858.6
                                                                                                          3.31E+04
  .622
              858.1
                         .289
                                  3.28E+04
                                                                         .698
                                                                                                . 303
                                                                                                          3.30E+04
                                                                                     888.0
                                                                                                .317
  .698
             887.4
                         . 302
                                  3.23E+04
                                                                         .775
                                                                                     909.4
                                                                                                          3.24E+04
  .775
              909.1
                        .316
                                  3.22E+04
                                                                         .851
                                                                                     928.0
                                                                                                . 330
                                                                                                          3.17E+04
                        .329
  .851
              928.1
                                  3.19E+04
                                                                         .927
                                                                                     940.6
                                                                                                . 343
                                                                                                          3.08E+04
                        . 342
                                                                                                . 356
  .927
              940.7
                                  3.09E+04
                                                                        1,003
                                                                                     945.0
                                                                                                          3.00E+04
 1.003
                                  2.98E+04
              945.0
                         354
                                                                        1.067
                                                                                     884.5
                                                                                                . 365
                                                                                                          2.55E+04
                                                                                                                         2.061+03
 1.067
              884.2
                                  2.54E+04
                         . 364
                                                1.87E+03
                                                                        1,156
                                                                                     924.4
                                                                                                . 378
                                                                                                          2.63E+04
                                                                                                                         7.08E+02
 1.156
              924.0
                         . 376
                                  2.62E+04
                                                5.29E+02
                                                                        1.232
                                                                                     897.3
                                                                                                          2.62E+04
                                                                                                . 388
 1.232
              896.8
                         .387
                                  2.60E+04
                                                                                                . 392
                                                                        1.257
                                                                                     910.9
                                                                                                          2.74E+04
 1.257
              910.8
                         .391
                                  2.691+04
                                                                        1.321
                                                                                     916.2
                                                                                                .402
                                                                                                          2.69E+04
 1.321
              916.0
                         . 400
                                  2.66E+04
                                                                        1,384
                                                                                     972.4
                                                                                                .411
                                                                                                          2.75E+04
 1.584
              972.2
                         .409
                                  2.71E+04
                                                                                     989.1
                                                                        1,460
                                                                                                          2.75E+04
                                                                                                .422
 1.460
              988.8
                         .421
                                  2.70E+04
                                                                        1.511
                                                                                     987.6
                                                                                                .430
                                                                                                          2.59E+04
 1.511
              987.5
                                  2.53E+04
                         .428
                                                                        1.562
                                                                                     970.2
                                                                                                          2.75E+04
                                                                                                .437
 1.562
              970.0
                         .435
                                  2.72E+04
                                                                        1.613
                                                                                     991.1
                                                                                                . 445
                                                                                                          2.72E+04
 1.613
             991.0
                         .442
                                  2.69E+04
                                                                        1,689
                                                                                    1012.4
                                                                                                .456
                                                                                                          2.67E+04
 1.689
             1012.3
                         .454
                                  2.65E+04
                                                                        1.765
                                                                                    1021.4
                                                                                                .467
                                                                                                          2.65E+04
 1.765
                         .464
             1021.3
                                  2.61E+04
                                                                        1.816
                                                                                    1013.6
                                                                                                . 1174
                                                                                                          2.45E+04
 1.816
             1013.4
                         .471
                                  2.41E+04
                                                                                                .481
                                                                        1.367
                                                                                     981.5
                                                                                                          2.63E+04
 1.867
             981.4
                         .478
                                  2.63E+04
                                                                        1.918
                                                                                     974.4
                                                                                                .488
                                                                                                          2.53E+04
 1.918
              974.3
                         .485
                                  2.51E+04
                                                                        1.994
                                                                                     958.2
                                                                                                .511
                                                                                                          8.56E+04
 1.994
             912.3
                         .506
                                  7.58E+04
                                                                        2.070
                                                                                     572.6
                                                                                                .539
                                                                                                          5.00E+04
```

599.7

.539

8.43E+04

INEL POST-CHE EXPERIMENT NO. 101

POINT SERIAL NO. 3101.030 (TIME= 229.50 SEC) POINT SERIAL NO. 1101.041 (TIME= 279.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 7.95 MPA LOOP PRESSURE (PE-3) 7.96 MPA FCV TEMPERATURE (TE-FCV-11) 524.2 K FCV TEMPERATURE (TE-FCV-1T) 523.8 K LHP INLET ENTHALPY 1.091E+06 J/KG LHP INLET ENTHALPY 1.089E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE PRESSURE .80 MPA .80 MPA SAT TEMP 443.81 K 443.81 K SAT TEMP 22.68 KG/SEC-M##2 MASS FLUX 22.93 KG/SEC-M**2 MASS FLUX INLET QUALITY INLET QUALITY . 180 . 179 1.091E+06 J/KG 1.089E+06 J/KG INLET ENTHALPY INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .390 M ELEVATION .478 M VELOCITY .0020 M/SEC VELOCITY .0016 M/SEC .241 QUALITY QUALITY .252 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE (M) (M) (K) DZQF TV ELEVATION XE XA (M) (M) (K) 1.841 1.452 855.1 .471 .328 1.232 . 754 679.0 .375 .300 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION (M) (K) W/M##2 M/W##5 ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 .013 452.5 . 182 2.47E+04 .187 .051 452.4 2.47E+04 .013 451.0 . 181 2.46E+04 .189 .063 450.9 2.47E+04 450.6 .051 . 186 2.46E+04 .188 .089 2.49E+04 457.7 .192 .063 449.4 2.46E+04 .114 . 196 2.49E+04 . 191 452.4 .089 454.8 2.47E+04 . 140 . 199 450.1 2.46E+04 . 114 449.8 . 195 2.47E+04 . 165 .203 451.5 2.46E+04 . 140 449.0 . 198 2.46E+04 . 165 .317 463.1 .225 3.02E+04 450.2 .202 2.46E+04 .223 . 394 632.8 .242 5.05E+04 .317 450.7 2.52E+04 .260 3.83E+04 . 394 .470 789.9 460.2 .234 2.75E+04 826.9 .275 3.37E+04 .250 .546 .470 601.6 5.20E+04 .622 .289 3.28E+04 858.1 .546 786.8 .269 3.63E+04 .302 .698 887.4 3.23E+04 .622 822.4 .283 2.948+04 .316 .698 .775 909.1 3.22E+04 851.8 .295 2.95E+04 .851 928.1 . 329 3,19E+04 .775 874.7 .307 3.00E+04 .927 940.7 .320 . 342 3.09E+04 .851 896.3 2.98E+04 . 354 1.003 945.0 2.98E+04 .927 911.9 .332 2.99E+04 . 364 1.067 884.2 2.54E+04 1.87E+03 1.003 921.0 . 345 2.89E+04 1.156 924.0 .376 2.62E+04 5.29E+02 1.067 870.0 . 354 2.55E+04 1.67E+03 1.232 896.8 . 387 2.60E+04 1.156 911.0 . 367 2.66E+04 6.41E+02 1.257 910.8 .391 2.59E+04 1.232 880.8 .378 2.63E+04 1,321 916.0 .400 2.66E+04 1.257 897.3 2.80E+04 . 382 1.384 972.2 .409 2.71E+04 1.321 906.4 .391 2.70E+04 1.460 988.8 .421 2.70E+04 1.384 960.7 .401 2.73E+04 987.5 1.511 .428 2.53E+04 1.460 977.6 .412 2.72E+04 970.0 . 435 .420 1.562 2.72E+04 1.511 976.5 2.56E+04 .442 1.613 991.0 2.69E+04 1.562 957.8 .427 2.74E+04 .454 1.689 1012.3 2.65E+04 1.613 980.6 .435 2.72E+04 1.765 1021.3 . 464 2.61E+04 1004.1 1.689 .446 2.70E+04 1013.4 1.816 .471 2.41E+04 1.765 1015.8 .457 2.64E+04 1.867 981.4 .478 2.63E+04 1.816 1010.1 . 464 2.45E+04 1.918 974.3 . 485 2.51E+04 1.867 976.6 .471 2.66E+04 1.994 912.8 .506 7.58E+04 1.918 794.0 .488 9.08E+04

1.994

2.070

INEL POST-CHE EXPERIMENT NO. 101

.517

.534

5.09E+04

3.01E+04

583.4

501.6

500.4

.543

2.98E+04

```
POINT SERIAL NO. 2101.040 (TIME= 279.50 SEC)
                                                                     POINT SERIAL NO. 3101.040 (TIME= 280.50 SEC)
LOOP PRESSURE (PE-3)
                                7.96 MPA
                                                                    LOOP PRESSURE (PE-3)
                                                                                                      7.96 MPA
FCV TEMPERATURE(TE-FCV-TT) 523.6 K
                                                                    FCV TEMPERATURE (TE-FCV-1T)
                                                                                                   523.8 K
LHP INLET ENTHALPY
                            1.088E+06 J/KG
                                                                    LHP INLET ENTHALPY 1.089E+06 J/KG
TEST SECTION:
                                                                    TEST SECTION:
    PRESSURE
                           443.81 K
22.68 KG/SEC-M**2
.179
                               . 80 MPA
                                                                         PRESSURE
                                                                                                        .80 MPA
                                                                                                 443.82 K
    SAT TEMP
                                                                         SAT TEMP
                                                                                                  22.63 KG/SEC-M**2
.179
    MASS FLUX
                                                                         MASS FLUX
    INLET QUALITY
                                                                         INLET QUALITY
     INLET ENTHALPY
                                                                         INLET ENTHALPY
                                                                                                1.089E+06 J/KG
QUENCH FRONT:
                                                                    QUENCH FRONT:
    ELEVATION
                                  .478 M
                                                                         ELEVATION
                                                                                                       .479 M
    VELOCITY
                                .0016 M/SEC
                                                                         VELOCITY
                                                                                                     .0016 M/SEC
    QUALITY
                                .252
                                                                         QUALITY
                                                                                                     .253
NET LHP POWER TO FLUID
                                 0.0 4
                                                                    NET LIP POWER TO FLUID
                                                                                                     0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                   TV
                            XE XA
                                                                    ELEVATION DZQF
                                                                                        TV
                                                                                                 XE XA
 (M)
            (M)
                     (K)
                                                                     (M)
                                                                                 (M)
                                                                                          (K)
1.537
           1.059 790.7 .422 .308
                                                                     1.841
                                                                                1.362 851.2 .464 .324
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                   XE HEAT FLUX
                                                                    ELEVATION TEMP XE HEAT FLUX
ELEVATION
           TEMP
                                              HEAT LOSS
                                                                                                                    HEAT LOSS
 (M)
             (K)
                                 W/M##2
                                                W/M##2
                                                                      (M)
                                                                                                       W/M##2
                                                                                  (K)
                                                                                                                     W/M##2
             450.9
                        .181
                                                                                            .181
 .013
                                 2.45E+04
                                                                      .013
                                                                                  451.0
                                                                                                      2.46E+04
 .051
                       . 186
             450.5 .
                                 2.46E+04
                                                                      .051
                                                                                  450.5
                                                                                            . 186
                                                                                                      2.46E+04
             449.3
                                 2.46E+04
                                                                      .063
                                                                                            . 188
  .063
                        . 188
                                                                                  449.3
                                                                                                      2.46E+04
                       . 191
  .089
             454.7
                                 2.47E+04
                                                                      .089
                                                                                            . 192
                                                                                  454.7
                                                                                                      2.47E+04
 .114
                       . 194
             449.8
                                 2.46E+04
                                                                      . 114
                                                                                            . 195
                                                                                  449.8
                                                                                                      2.47E+04
  . 140
                       .198
             448.9
                                 2.45E+04
                                                                      .140
                                                                                  448.9
                                                                                            .198
                                                                                                      2.46E+04
                       .201
                                                                                            .202
  . 165
             450.2
                                 2.46E+04
                                                                      . 165
                                                                                  450.2
                                                                                                      2.46E+04
                                                                                            .223
             450.6
  .317
                        .222
                                 2.50E+04
                                                                      .317
                                                                                  450.6
                                                                                                      2.51E+04
  . 394
             459.6
                        .233
                                 2.63E+04
                                                                      . 394
                                                                                  459.9
                                                                                            .234
                                                                                                      2.69E+04
                       .250
  .470
             595.1
                                 5.67E+04
                                                                      .470
                                                                                  613.3
                                                                                            .250
                                                                                                      5.17E+04
                       .269
  .546
             787.5
                                 3.21E+04
                                                                      .546
                                                                                  786.2
                                                                                            .269
                                                                                                      3.67E+04
                                                                                            .283
  .622
             822.8
                        .282
                                3.07E+04
                                                                      .622
                                                                                  821.9
                                                                                                      2.93E+04
  .698
                        .295
                               3.07E+04
                                                                                            .295
             852.0
                                                                      .698
                                                                                  851.3
                                                                                                      2.94E+04
                               3.08E+04
3.02E+04
3.05E+04
 .775
             875.0
                       .308
                                                                      .775
                                                                                  874.2
                                                                                            .307
                                                                                                      2.97E+04
  851
             896.4
                        .320
                                                                      .851
                                                                                  895.8
                                                                                            .320
                                                                                                      2.96E+04
  .927
             912.3
                        . 333
                                                                      .927
                                                                                  911.4
                                                                                            . 332
                                                                                                      2.98E+04
 1.003
             921.1
                                 2.95E+04
                                                                                            . 344
                        . 346
                                                                     1.003
                                                                                  920.6
                                                                                                      2.87E+04
 1.067
             870.1
                        .355
                                 2.58E+04
                                               1.45E+03
                                                                     1.067
                                                                                  869.7
                                                                                            . 354
                                                                                                      2.54E+04
                                                                                                                    1.71E+03
 1.156
             911.2
                        .368
                                 2.68E+04
                                               6.84E+02
                                                                     1.156
                                                                                  910.8
                                                                                            . 367
                                                                                                      2.65E+04
                                                                                                                    6.72E+02
 1.232
             880.6
                        .379
                                 2.63E+04
                                                                     1.232
                                                                                  880.5
                                                                                            .378
                                                                                                      2.63E+04
 1.257
             897.7
                        . 383
                                 2.86E+04
                                                                     1,257
                                                                                  897.0
                                                                                            .381
                                                                                                      2.78E+04
                       . 393
             906.7
 1.321
                                 2.73E+04
                                                                     1.321
                                                                                  906.2
                                                                                            . 391
                                                                                                      2.69E+04
                                                                     1.384
 1.384
             961.4
                        .403
                                 2.80E+04
                                                                                  960.5
                                                                                            . 400
                                                                                                      2.72E+04
 1.460
             978.3
                        .414
                                 2.75E+04
                                                                     1.460
                                                                                  977.4
                                                                                             .412
                                                                                                      2.70E+04
 1.511
             977.2
                        .422
                                 2.61E+04
                                                                     1.511
                                                                                  976.3
                                                                                            .419
                                                                                                      2.55E+04
                                 2.75E+04
 1.562
             958.4
                        .429
                                                                     1.562
                                                                                  957.6
                                                                                            .427
                                                                                                      2.74E+04
 1.613
             981.2
                        .437
                                 2.74E+04
                                                                     1.613
                                                                                  980.4
                                                                                            .434
                                                                                                      2.72E+04
                        . 448
 1.689
            1004.9
                                 2.71E+04
                                                                     1.689
                                                                                 1003.9
                                                                                            .446
                                                                                                      2.69E+04
 1.765
            1016.6
                        .459
                                 2.64E+04
                                                                     1.765
                                                                                 1015.6
                                                                                            .457
                                                                                                      2.62E+04
            1011.1
 1.816
                                2.47E+04
                                                                                            .464
                        .466
                                                                     1.816
                                                                                 1010.0
                                                                                                      2.43E+04
             977.5
                        .473
                                2.61E+04
 1.867
                                                                     1.867
                                                                                 976.4
                                                                                            .471
                                                                                                      2.70E+04
 1,918
             821.7
                                 1.20E+05
                        .494
                                                                     1.918
                                                                                  897.7
                                                                                            .487
                                                                                                      9.13E+04
 1.994
             577.0
                        .528
                                4.22E+04
                                                                     1.994
                                                                                  580.3
                                                                                            .517
                                                                                                     4.80E+04
```

2.070

500.9

.533

3.00E+04

7.94 MPA

.80 MPA

22.38 KG/SEC-M##2

523.8 K

1.089E+06 J/KG

443.79 K

.179

.556 M

.0015 M/SEC

1.089E+06 J/KG

POINT SERIAL NO. 1101.050 (TIME= 329.50 SEC)

LOOP PRESSURE(PE-3)

LHP INLET ENTHALPY

PRESSULE

SAT TEMP

MASS FLUX

ELEVATION

VELOCITY

INLET QUALITY

INLET ENTHALPY

TEST SECTION:

QUENCH FRONT:

FCV TEMPERATURE (TE-FCV-1T)

INEL POST-CHE EXPERIMENT NO. 101 POINT SERIAL NO. 2101.050 (TIME= 329.50 SEC) LOOP PRESSURE(PE-3) 7.94 MPA FCV TEMPERATURE (TE-FCV-1T) 523.8 K LHP INLET ENTHALPY 1.089E+06 J/KG TEST SECTION: PRESSURE .80 MFA SAT TEMP 443.79 K MASS FLUX 22.38 KG/SEC-M**2 INLET QUALITY .179 INLET ENTHALPY 1.089E+06 J/KG QUENCH FRONT: ELEVATION .556 M VELOCITY .0015 M/SEC QUALITY .264 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV (M) (M) (K) 1.537 .981 776.7 .418 .309 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX (M) (K) W/M##2 W/M**2 .013 450.2 . 181 2.47E+04 .051 449.6 2.47E+04 . 186 .063 .188 448.6 2.47E+04 .089 453.2 . 192 2.48E+04 .114 . 195 448.5 2.48E+04 448.3 2.47E+04 . 140 . 199 .202 . 165 449.4 2.47E+04 .317 448.6 .223 2.47E+04 . 394 452.4 .234 2.52E+04 .470 469.7 2.74E+04 . 245 .546 611.7 .261 5.12E+04 .622 792.4 .280 3.55E+04 .294 .698 825.4 2.99E+04 .775 849.8 .306 2.93E+04 .851 874.1 .318 .927 888.3 .331 2.86E+04 1.003 901.4 . 343 2.84E+04 . 352 1.067 858.0 2.53E+04 1.70E+03 1,156 898.0 . 365 2.64E+04 8.52E+02 .376 1.232 869.5 2.55E+04 1.257 884.6 . 380 2.73E+04 . 389 1.321 896.7 2.70E+04 1.384 949.3 . 399 2.71E+04 1.460 966.9 .410 2.70E+04 1.511 965.6 .418 2.55E+04 1,562 948.1 .425 2.67E+04

.433

. 444

.455

.472

. 498

.515

.528

.540

2.68E+04

2.67E+04

2.68E+04

9.36E+04

8.87E+04

3.03E+04

3.06E+04

2.69E+04

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

971.1

1008.0

926.4

718.0

481.4

510.5

477.6

AFFOCI			.UUTS M/SEC	
QUALIT			.264	
NET LHP POW	ER TO FLU	1D	0.0 W	
VAPOR TEMPE	RATURE ME	ASUREMENT L	OCATION INFORMA	TION
ELEVATION	DZQF		E XA	
(M)	(M)	(K)		
(111)	(11)	161		
1.232	.676	665.0 .3	73 . 302	
WALL TEMPER	ATURE MEA	SUREMENT LO	CATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)	-	W/M**2	W/M**2
	tree o	101	D 1: 75 + Ob	
.013	450.2	. 181	2.47E+04	
.051	449.6	. 186	2.47E+04	
.063	448.6	. 188	2.47E+04	
.089	453.2	. 192	2.48E+04	
. 114	448.5	. 195	2.48E+04	
. 140	448.3	. 199	2.47E+04	
. 165	449.4	.202	2.47E+04	
.317	448.6	.223	2.47E+04	
. 394	452.4	.234	2.52E+04	
.470	469.7	.245	2.74E+04	
.546		.261		
	611.7		5.12E+04	
.622	792.4	.280	3.55E+04	
.698	825.4	. 294	2.99E+04	
. 775	849.8	. 306	2.93E+04	
.851	874.1	.318	2.86E+04	
.927	888.3	. 331	2.86E+04	
1.003	901.4	. 343	2.84E+04	
1.067	858.0	. 352	2.53E+04	1.70E+03
1.156	898.0	. 365	2.64E+04	8.52E+02
1.232	869.5	. 376	2.55E+04	
1.257	884.6	. 380	2.73E+04	
1.321	896.7	.389	2.70E+04	
1.384	949.3	. 399	2.71E+04	
1.460	966.9	.410	2.70E+04	
1.511	965.6	.418	2.55E+04	
1.562	948.1	.425	2.67E+04	
1.613	971.1	. 433	2.68E+04	
1.689	995.4	. 444	2.67E+04	
1.765	1008.0	. 455	2.68E+04	
1.816	926.4	.472	9.36E+04	
1.867	718.0	.498	8.87E+04	
1.918	481.4	.515	3.03E+04	
1.994	510.5	.528	3.06E+04	
2.070	477.6	. 540	2.69E+04	

```
POINT SERIAL NO. 3101.050 (TIME= 323.50 SEC)
                                                                          POINT SERIAL NO. 1101.061 (TIME= 372.50 SEC)
                                                                          (INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                    7.96 MPA
                                                                          LOOP PRESSURE(PE-3)
                                                                                                               7.95 MPA
FCV TEMPERATURE (TE-FCV-1T1
                                  523.9 K
                                                                          FCV TEMPERATURE (TE-FCV-1T)
                                                                                                             524.1 K
LHP INLET ENTHALPY
                               1.089E+06 J/KG
                                                                          LHP INLET ENTHALPY
                                                                                                         1.091E+06 J/KG
TEST SECTION:
                                                                          TEST SECTION:
                                     .80 MPA
     PRESSURE
                                                                               PRESSURE
                                                                                                                .81 MPA
     SAT TEMP
                                  443.78 K
                                                                               SAT TEMP
                                                                                                            443.83 K
     MASS FLUX
                                   22.42 KG/SEC-M**2
                                                                               MASS FLUX
                                                                                                             22.10 KG/SEC-M**2
     INLET QUALITY
                                                                               INLET QUALITY
                                    . 180
                                                                                                               180
     INLET ENTHALPY
                               1.089E+06 J/KG
                                                                               INLET ENTHALPY
                                                                                                         1.091E+06 J/KG
QUENCH FRONT:
                                                                          QUENCH FRONT:
     ELEVATION
                                    .546 M
                                                                               ELEVATION
                                                                                                               .618 M
     VELOCITY
                                   .0015 M/SEC
                                                                               VELOCITY
                                                                                                              .0014 M/SEC
     QUALITY
                                   . 263
                                                                               QUALITY
                                                                                                              .275
NET LHP POWER TO FLUID
                                    0.0 W
                                                                          NET LHP POWER TO FLUID
                                                                                                               0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                     TV
                               XE
                                    XA
                                                                          (INTERRED VAPOR TEMP)
 (M)
             (M)
                      (K)
                                                                          ELEVATION DZQF
                                                                                                 iV
                                                                                                         XE
                                                                                                               XA
                                                                           (M)
                                                                                       (M)
                                                                                                 (K)
1.841
            1.295
                     848.9
                             .469 .328
                                                                          1.232
                                                                                       .614
                                                                                               630.0 .373 .311
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                    REAT FLUX
                                                  HEAT LOSS
                                                                          WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                    W/M##2
 (M)
               (K)
                                                   W/M##2
                                                                          ELEVATION
                                                                                        TEMP
                                                                                                    XE
                                                                                                              HEAT FLUX
                                                                                                                             HEAT LOSS
                                                                           (M)
                                                                                         (K)
                                                                                                               W/M**2
                                                                                                                              W/M##2
                                    2.58E+04
 .013
              449.7
                          .181
                                                                            .013
 .051
              449.6
                          .187
                                    2.48E+04
                                                                                        450.1
                                                                                                    .182
                                                                                                              2.48E+04
  .063
              448.5
                          . 189
                                    2.47E+04
                                                                            .051
                                                                                        449.1
                                                                                                    . 187
                                                                                                              2.48E+04
  .089
              453.1
                          . 192
                                    2.50E+04
                                                                            .063
                                                                                        448.0
                                                                                                    .189
                                                                                                              2.48E+04
 . 114
                         . 196
                                    2.485+04
              448.6
                                                                            .089
                                                                                        452.2
                                                                                                    . 193
                                                                                                              2.48E+04
 . 140
              448.3
                         .199
                                    2.46E+04
                                                                                                    . 196
                                                                            .714
                                                                                        447.8
                                                                                                              2.48E+04
 . 165
                                                                           . 140
              449.4
                         .203
                                    2.47E+04
                                                                                        447.9
                                                                                                    .200
                                                                                                              2.48E+04
 .317
              449.0
                         .223
                                    2.48E+04
                                                                           . 165
                                                                                        448.9
                                                                                                    .203
                                                                                                              2.48E+04
 . 394
                         .234
              452.8
                                    2.55E+04
                                                                           .317
                                                                                        447.8
                                                                                                    .224
                                                                                                              2.49E+04
                         .245
 .470
              470.3
                                    2.77E+04
                                                                           .394
                                                                                        450.0
                                                                                                    .235
                                                                                                              2.52E+04
  .546
              668.0
                         .263
                                    5.66E+04
                                                                           .470
                                                                                                    .246
                                                                                        460.0
                                                                                                              2.59E+04
 .622
                                                                            .546
              796.7
                         .282
                                    3.23E+04
                                                                                        474.2
                                                                                                    . 258
                                                                                                              3.07E+04
 .698
              829.9
                          .295
                                    3.10E+04
                                                                            .622
                                                                                        656.3
                                                                                                    .276
                                                                                                              5.10E+04
 .775
              854.3
                          .309
                                    3.13E+04
                                                                           .698
                                                                                        800.8
                                                                                                    .293
                                                                                                               3.00E+04
 .851
              877.6
                          .322
                                    3.05E+04
                                                                            .775
                                                                                        827.4
                                                                                                    . 306
                                                                                                              2.941+04
                         .335
                                                                           .851
 .927
              891.3
                                    3.09E+04
                                                                                        855.2
                                                                                                    . 318
                                                                                                              2.89E+04
 1.003
              904.3
                         . 348
                                   3.08E+04
                                                                            .927
                                                                                        872.9
                                                                                                    . 330
                                                                                                              2.81E+04
 1.067
              859.7
                         . 358
                                   2.63E+04
                                                  1.07E+03
                                                                           1.003
                                                                                        885.7
                                                                                                    .342
                                                                                                              2.79E+04
                         .371
                                   2.72E+04
 1.156
              899.7
                                                  6.09E+02
                                                                           1.067
                                                                                        847.0
                                                                                                    . 352
                                                                                                              2.52E+04
                                                                                                                             1.89E+03
 1.232
              871.3
                         . 382
                                    2.55E+04
                                                                           1.156
                                                                                        836.4
                                                                                                    . 365
                                                                                                              2.61E+04
                                                                                                                             1.18E+03
 1.257
              886.8
                          . 386
                                    2.76E+04
                                                                           1.232
                                                                                        859.9
                                                                                                    .376
                                                                                                              2.59E+04
 1.321
              898.7
                         .396
                                    2.73E+04
                                                                                                    .380
                                                                           1.257
                                                                                        874.4
                                                                                                              2.73F+04
 1.384
              951.6
                         .405
                                    2.75E+04
                                                                           1.321
                                                                                        888.2
                                                                                                    . 389
                                                                                                              2.70E+04
                                    2.72E+04
 1.460
              968.8
                          .417
                                                                           1.384
                                                                                        939.5
                                                                                                    . 399
                                                                                                              2.74E+04
 1.511
              967.6
                          .424
                                    2.56E+04
                                                                           1.460
                                                                                        957.3
                                                                                                    .411
                                                                                                              2.74E+04
              949.8
1.562
                          .432
                                    2.72E+04
                                                                           1.511
                                                                                        956.1
                                                                                                    .419
                                                                                                              2.57E+04
              972.8
1.613
                          .439
                                    2.70E+04
                                                                           1.562
                                                                                        940.6
                                                                                                    . 426
                                                                                                              2.71E+04
 1.689
              996.9
                          451
                                    2.65E+04
                                                                          1.613
                                                                                        963.2
                                                                                                    . 434
                                                                                                              2.71E+04
 1.765
             1009.7
                          .462
                                    2.67E+04
                                                                          1.689
                                                                                        987.7
                                                                                                    . 446
                                                                                                              2.72E+04
1.816
             1004.4
                          .469
                                    2.57E+04
                                                                          1.765
                                                                                        802.6
                                                                                                    .472
                                                                                                              9.70E+04
1.867
              750.6
                          . 495
                                    1.56E+05
                                                                                                    .500
                                                                                        550.9
                                                                          1.816
                                                                                                              9.69E+04
                         .521
 1.918
              481.9
                                    2.98E+04
                                                                           1.867
                                                                                        504.0
                                                                                                    .519
                                                                                                              3.71E+04
1.994
              513.3
                          .534
                                    3.08E+04
                                                                          1.918
                                                                                        465.1
                                                                                                    .528
                                                                                                              2.62E+04
2.070
              478.9
                          .546
                                    2.70E+04
                                                                          1.994
                                                                                        486.5
                                                                                                              2.77E+04
                                                                                                    .540
                                                                          2.070
                                                                                        467.7
                                                                                                    .551
                                                                                                              2.61E+04
```

DOLLET CEDI	AL NO 220	1 060 (1)	ME- 179 50 SEC		POINT SERI	AL NO 21	01 070	ITIME- h	NO 50 SEC	
			IME= 372.50 SEC							
LOOP PRESS	URE(PE-3)		7.95 MPA 524.1 K .091E+06 J/KG		LOOP PRESS	URE(PE-3)		7.	97 MPA	
FCV TEMPER	ATURE (TE-FC	V-1T)	524.1 K		FCV TEMPER	ATURE (TE-F	CV-17)	523	.9 K	
LHP INLET	ENTHALPY	1.	.091E+06 J/KG		LHP INLET	ENTHALPY		1.089E+	06 J/KG	
TEST SECTI	ON:				TEST SECTI	ON:				
PRESS	URE		.81 MPA		PRESS	URE			BO MPA	
SAT T	EMP		443.83 K		SAT T	EMP		443.	78 K	
MASS	FLUX		22.10 KG/SEC	-M**2	MASS	FLUX		22.	05 KG/SEC	-M**2
INLET	QUALITY		. 180		INLET	QUALITY		. 1	80	
INLET	ENTHALPY	1.	091E+06 J/KG		INLET	ENTHALPY		1.089E+	06 J/KG	
QUENCH FRO	NT:				QUENCH FRO	NT:				
ELEVA	TION		.618 M		FLEVA	TION		. 7	06 M	
VELOC	ITY		.0014 M/SEC		VELOC	HY		.00	12 M/SEC	
QUALI	IY		.275		QUALI	IY		. 2	84	
NET LHP PO	WER TO FLUI	D	.618 M .0014 M/SEC .275 0.0 W	-M**2	NET LHP PO	WER TO FLU	110	0	.0 W	
VAPOR TEMP	ERATURE MEA	SUREMENT LO	CATION INFORMA	TION	VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATIO	N INFORMA	TION
ELEVATION	DZQF	TV XE	XA		ELEVATION	DZQF	IV	XE X		
(M)	(M)	(K)			(M)	(M)	(K)			
1.537	.918	746.5 .41	9 .317		1.537			.413 .3		
WALL TEMPE	RATHRE MEAS	BREMENT LOC	CATION INFORMAT	HEAT LOSS W/M**2	WALL TEMPEL ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460	RATURE MEA	SURFMENT	OCATION	INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	FIEVATION	TEMP	XF	HE	AT FLUX	HEAT LOSS
(M)	(K)	****	M/W##5	W/M**2	(M)	(K)	74.	W	/M**2	W/M**2
			W/M**2 2.48E+04 2.48E+04 2.48E+04 2.48E+04 2.48E+04 2.48E+04 2.48E+04 2.52E+04 2.52E+04 3.07E+04 3.00E+04 2.94E+04 2.94E+04 2.81E+04 2.79E+04 2.52E+04							
.013	450.1	. 182	2.481+04		.013	449.8	. 181	2. 2. 2. 2.	19E+04	
.051	449.1	, 187	2.48E+04		.051	448.6	. 187	2.	OOE+04	
.063	452.2	. 189	2.48E+04		.063	447.6	. 189	2.	19E+04	
.089	452.2	. 193	2.48E+04		.089	451.3	. 192	2.	DOE+04	
. 114	447.8	. 196	2.48E+04		.114	447.3	. 196	2.	198+04	
. 140	447.9	.200	2.48E+04		. 140	447.7	. 199	2.	19E+04	
. 165	448.9	. 203	2.48E+04		. 165	448.4	. 203	2.	OE+04	
. 317	452.2 447.8 447.8 447.8 450.0 460.0 474.2 656.3 800.8 827.4 855.2	.224	2.49E+04		.317	447.1	. 224	2.	19E+04	
. 394	450.0	.235	2.52E+04		. 394	448.4	.235	2.	1E+04	
.470	460.0	. 246	2.591+04		. 470	454.3	. 246	2.	3E+04	
.546	4/4.2	.238	3.07E+04		.546	457.5	.257	2.	08E+04	
.622	676.3	,276	5. 10E+04		.622	453.3	. 268	2.	1E+04	
. 698	800.8	. 293	3.00E+04		. 698	562.7	.282	3.	16E+04	
.775	827.4	. 300	2.941+04		.775	801.5	.298	3.	21E+04	
.851	855.2	.318	2.89E+04		.851	831.1	.311	2.	16E+04	
1.003	012.9	. 3 30	2.011.404		.927	852.3	. 323	2. 2. 3. 3. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	0E+04	
	000.1	342	2.791.04	1 005+02	1.003	868.8	. 336	2.1	39E+04	
1.067	847.0	365	2.521.404	1.89E+03 1.18E+03	1.067	836.0	. 346	2.	9E+04	1.37E+03
1.232	000.4	. 300	2.016+04	1.101+03	1.156	874.5	. 359	2.0	4E+04	8.57E+02
	079.9	390	2.735+04		1.232	840.4	. 370	2.0	2E+04	
1.257	074.4	. 389	2.73E+04 2.70E+04 2.74E+04 2.74E+04 2.57E+04		1.257	861.7	. 374	2.1	4E+04	
	888.2 939.5	. 399	2.701.404		1.321	876.5	. 384	2.	5E+04	
1.384	957.3	. 399	2.746+04		1.384	927.6	. 394	2.	4E+04	
1.460		.411	2.742+04		1.460	947.7	. 406	2.	5E+04	
1.511	956.1	.419	2.57E+04		1.511	940.9	.413	6.	BE+()4	
1.562	940.6	.426	2.71E+04		1.562	931.9 810.4 534.4 465.4 453.1 466.0 456.9 468.6 459.4	.421	2.1	12E+04	
1.613	963.2	. 434	2.71E+04		1.613	810.4	. 438	9.	7F+04	
1.689	987.7	. 446	2.72E+04		1.689	534.4	.479	9.5	2E+04	
1.765	802.6	.472	9.70E+04 9.69E+04		1.765	465.4	. 505	2.	6E+04	
1.816	550.9	.500	9.69E+04		1.816	453.1	.512	2.1	2E+04	
1.867	504.0	.519	3.71E+04		1.867	466.0	.520	2.6	5E+04	
1.918	465.1	.528	3.71E+04 2.62E+04 2.77E+04		1.918	456.9	.527	2.5	5E+04	
1.994 2.070	486.5 467.7	.540	2.77E+04 2.61E+04		1.994	468.6	.538	2.6	2E+04	
					2.070			tide of	AND DESCRIPTION OF THE PARTY OF	

456.8

.567

2.54E+04

POINT SERIAL NO. 2101.080 (TIME= 476.50 SEC) POINT SERIAL NO. 1102.020 (TIME= 167.50 SEC) 7.97 MPA 100P PRESSURE(PE-3) 7.95 MPA LOOP PRESSURE(PE-3) 523.7 K FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE(TE-FCV-1T) 525.0 K 1.095E+06 J/KG LHP INLET ENTHALPY 1,089E+06 J/KG LIIP INLET ENTHALPY TEST SECTION: TEST SECTION: .81 MPA PRESSURE PRESSURE .81 MPA 444.18 K SAT TEMP 443.86 K SAT TEMP 21.90 KG/SEC-M**2 40.20 KG/SEC-M**2 .182 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY .179 INLET ENTHALPY 1.089E+06 J/KG INLET ENTHALPY 1.095E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .751 M ELEVATION .318 M VELOCITY VELOCITY .0014 M/SEC .0032 M/SEC .292 .232 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZOF TV ELEVATION DZQF IV XE XA XE XA (M) (M) (M) (M) .914 737.2 .375 .286 1.537 . 786 705.3 .416 .325 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT LOSS ELEVATION TEMP XE ELEVATION TEMP HEAT FLUX HEAT FLUX HEAT LOSS W/M##2 W/M##2 W/M##2 (M) (K) (M) (K) W/M##2 . 183 .013 .013 448.1 450.1 . 181 2.51E+04 4.31E+04 . 186 . 188 448.6 2.51E+04 .051 460.0 .051 4.36E+04 2.50E+04 .063 447.7 . 188 .063 456.9 . 190 4.30E+04 . 192 2.51E+04 . 193 .089 4.38E+04 .089 451.1 467.6 . 95 .114 .197 . 114 2.49E+04 461.8 4.39E+04 447.4 . , 79 . 140 .200 447.7 2.50E+04 .140 457.2 4.34E+04 .204 . 165 448.3 .2 3 2.50E+04 . 165 460.5 4.87E+04 2.51E+04 .317 . 317 446.9 .2. 1 661.0 .232 7.00E+04 2.55E+04 . 394 7.74E+04 . 394 447.9 839.7 .249 2.56E+04 .470 907.4 .470 453.0 .246 .265 5.51E+04 .258 .278 .546 .546 454.1 2.58E+04 933.1 5.27E+04 .290 .622 448.6 .269 2.57E+04 .622 953.2 5.181+04 971.5 .302 .698 474.3 .281 2.88E+04 .698 5.07E+04 .775 . 314 .775 773.3 .298 4.97E+04 987.8 4.98E+04 . 314 2.72E+04 .326 .851 817.2 .851 1003.0 4.908+04 . 337 .326 .927 842.0 2.65E+04 .927 1010.7 4.77E+04 2.72E+04 1.003 858.5 . 338 1.003 1011.4 . 348 4.57E+04 . 347 2.51E+04 1.067 828.8 1.49E+03 1.067 938.1 .357 3.89E+04 3.51E+03 .360 2.66E+04 3.66E+02 1.156 1.156 866.7 981.3 .367 4.03E+04 9.73E+02 .377 2.76E+04 1.232 836.2 .372 1.232 934.3 4.00E+04 . 380 1.257 849.6 .376 2.86E+04 1.257 946.5 4.35E+04 . 386 .389 2.78E+04 1.321 868.9 1.321 957.9 4.32E+04 . 396 1025.2 1.384 920.2 2.79E+04 1.384 .397 4.42E+04 1.460 941.4 .408 2.72E+04 1.460 1043.9 .408 4.43E+04 .511 940.6 .416 2.61E+04 1.511 1035.7 .415 4.16E+04 2.62E+05 .421 1.562 633.0 .457 1.562 985.5 4.50E+04 2.94E+04 1.613 468.5 .499 1.613 1010.9 .429 4.51E+04 .512 2.70E+04 1.689 465.4 1.689 1040.7 .439 4.45E+04 1.765 456.8 .523 2.61E+04 1.765 1052.3 .450 4.36E+04 1.816 450.1 .530 2.38E+04 1.816 1040.8 .456 4.07E+04 1.867 460.3 .538 2.59E+04 1.867 981.5 .463 4.37E+04 1.918 455.0 .545 2.52E+04 1.918 974.9 .470 4.27E+04 1.994 463.5 .556 2.59E+04 1.994 989.1 .480 4.12E+04

2,070

1000.3

.489

4.05E+04

POINT SER	IAL NO. 21	102.020	(TIME= 167.50 S	EC)	POINT SER	IAL NO. 3	102.020	(TIME= 16)	.50 SEC)
LOOP PRESS	SURE (PE-3)		7.95 MPA	EC-M**2	LOOP PRES	SURE(PE-3)		7.9	MPA	
FCV LEMPER	RATURE (TE-	CV-11)	525.0 K		FCV TEMPE	RATURE (TE-	FCV-11)	525.0	K	
LHP INLET	ENTHALPY		1.095E+06 J/KG		LHP INLET	ENTHALPY		1.095E+06	J/KG	
TEST SECTI	ION:				TEST SECT	ION:				
PRESS	SURE		.81 MPA		PRES	SURE		.81	MPA	
SAT 1	TEMP		444.18 K		SAT	TEMP		444.18	K	
MASS	FLUX		40.20 KG/S	EC-M**2	MASS	FLUX		40.20	KG/SEC	-M**2
INLET	T QUALITY		. 182		INLE	T QUALITY		, 182		
INLET	I ENTHALPY		1.095E+06 J/KG		INLE	T ENTHALPY		1.095E+06	J/KG	
QUENCH FRO	: TAC				QUENCH FR	ONT:		200		
ELEVA	ATION		.318 M		ELEV	ATION		. 318	М	
VELOC	CITY		.0032 M/SE	C	VELO	CITY		.0032	M/SEC	
QUALI	ITY		.232		QUAL	IIY		.232		
NET LHP PO	OWER TO FLU	HD	0.0 W		NET LHP P	DWER TO FL	UID	0.0	W	
VACEDIC LEMI	TERMIUNE ME	A SUITE PIE IN I	LUCATION INFOR	MATION	AWLOW TELL	LUMIUME PE	CMOUNTERE	TOWN TON	INFORMA	TION
(M)	(M)	(K)	XE XA		ELEVATION (M)	(M)	(K)	AL AM		
1.537	1.218	788.3	.415 .304	3.51E+03 9.73E+02	1.841	1.523	805.0	.456 .330		
WALL TEMPE	ERATURE MEA	SUREMENT	LOCATION INFORM	HEAT LOSS W/M**2	1.841 WALL TEMPIELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.44 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	ERATURE ME	ASUREMENT	LOCATION I	NEORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)		W/M	**2	M/W**5
.013	448.1	. 183	4.31E+04		.013	448.1	. 183	4.31	E+04	
.051	460.0	. 188	4.36E+04		.051	460.0	. 188	4.36	E+04	
.063	456.9	. 190	4.30E+04		.063	456.9	. 190	4.30	E+04	
.089	467.6	. 193	4.38E+04		.089	467.6	. 193	4.38	E+04	
. 114	461.8	. 197	4.39E+04		. 114	461.8	. 197	4.39	E+04	
. 140	457.2	.200	4.34E+04		. 140	457.2	.200	4.34	E+04	
. 165	460.5	.204	4.87E+04		. 165	460.5	.204	4.87	E+04	
. 317	661.0	.232	7.00E+04		. 317	661.0	.232	7.00	L+04	
. 394	839.7	. 249	7.74E+04		. 394	839.7	. 249	7.74	E+04	
.470	907.4	. 265	5.51E+04		.470	907.4	. 265	5.51	E+04	
. 546	933.1	.278	5.271+04		.546	933.1	.278	5.27	E+04	
.622	953.2	. 290	5.18E+04		.622	953.2	. 290	5.18	E+04	
. 698	9/1.5	. 302	5.071+04		.698	9/1.5	. 302	5.07	E+04	
. 115	987.8	. 314	4.981+04		.775	987.8	. 314	4.98	1+04	
.851	1003.0	. 326	4.901+04		.851	1003.0	. 326	4.90	E+04	
.927	1010.7	. 337	4.771.404		1 003	1010.7	. 331	4.77	+04	
1.003	1011.4	. 348	4.571.404	3 515403	1.003	070.1	. 348	4.57	+04	2 5 5 5 5 5 5 7
1.067	938.1	357	3.091704	0.725403	1.007	930.1	.327	3.89	104	3.511103
1.130	981.3	. 307	4.03E+04	9.132+02	1.130	901.3	. 307	4.03	C+04	9.131+02
1.232	934.3	377	4.00E+04		1 267	934.3	377	4.00	C+04	
1.257	940.5	. 380	4.355+04		1.237	946.9	. 380	4.35	+04	
1.321	1025 2	. 389	4.32E+04		1.3-1	1025 2	. 389	4.32	:+04	
1.384	1023.2	. 397	4.42E+04 4.43E+04 4.16E+04 4.50E+04		1 1.60	1023.2	. 391	4.42	+04	
1.400	1043.9	400	4.435.404		1.400	1043.9	.408	4.43	104	
1.562	095 6	413	4.105+04		1.563	095 5	412	4.10	704 704	
1.613	985.5 1010.9	120	4.50E+04 4.51E+04 4.45E+04 4.36E+04 4.07E+04 4.37E+04 4.27E+04 4.12E+04 4.05E+04		1.502	1010.0	,421	4.50	- + OH	
1.689	1010.9 1040.7 1052.3 1040.8	429	h h5540h		1.613	1010.9	.429	4.51		
1.009	1040.7	439	4.45E+04		1.009	1040.7	.439	4.45	- + O4	
1.765	10/10 9	.450	4.306704		1 916	1002.3	450	4.30	- + O4	
1.867	081 5	1163	4.072704		1.010	083 5	.420	4.07		
1.918	901.5	403	4.375+04		1.00/	901.5	.403	4.37	-+04 -+04	
1.994	080 1	470	h 12F+0h		1.918	974.9	.470	4.27	+04	
2.070	1040.7 1052.3 1040.8 981.5 974.9 989.1 1000.3	480	4. 12E+04		2.070	1000 3	. 480	4.12	-04	
2.070	1000.3	.409	4.036.704		2.070	1000.3	.409	4.00	104	

.492

1006.5

4.21E+04

4.15E+04

2.070

1006.5

.492

4.15E+04

```
IJINT SERIAL NO. 1102.030 (TIME= 190.50 SEC)
                                                                       POINT SERIAL NO. 2102.030 (TIME= 190.50 SEC)
LOOP PRESSURE(PE-3)
                                   7.95 MPA
                                                                       LOOP PRESSURE(PE-3)
                                                                                                          7.95 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                 525.0 K
                                                                       FCV TEMPERATURE (TE-FCV-1T)
                                                                                                         525.0 K
LHP INLET ENTHALPY
                              1.095E+06 J/KG
                                                                       LHP INLET ENTHALPY
                                                                                                     1.095E+06 J/KG
TEST SECTION:
                                                                       TEST SECTION:
                                   .81 MPA
     PRESSURE
                                                                            PRESSURE
                                                                                                           .81 MPA
    SAT TEMP
                                444.21 K
                                                                            SAT TEMP
                                                                                                        444.21 K
    MASS FLUX
                                 39.91 KG/SEC-M**2
                                                                            MASS FLUX
                                                                                                         39.91 KG/SEC-M*#2
     INLET QUALITY
                                  . 181
                                                                            INLET QUALITY
                                                                                                          . 181
     INLET ENTHALPY
                             1.095E+06 J/KG
                                                                            INLET ENTHALPY
                                                                                                     1.095E+06 J/KG
QUENCH FRONT:
                                                                       QUENCH FRONT:
    ELEVATION
                                   .390 M
                                                                           ELEVATION
                                                                                                           .390 M
     VELOCITY
                                  .0030 M/SEC
                                                                            VELOCITY
                                                                                                          .0030 M/SEC
    QUALITY
                                  .243
                                                                            QUALITY
                                                                                                          .243
NET LIIP POWER TO FLUID
                                   0.0 W
                                                                       NET LHP POWER TO FLUID
                                                                                                           0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                    IV
                             XE XA
                                                                       ELEVATION
                                                                                  DZQF
                                                                                           IV
                                                                                                    XE XA
 (M)
             (M)
                     (K)
                                                                        (M)
                                                                                    (M)
                                                                                             (K)
1.232
             .842
                    718.0 .375 .290
                                                                        1.537
                                                                                  1.147 763.3 .416 .311
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                      XE
                                  HEAT FLUX
                                                HEAT LOSS
                                                                       ELEVATION
                                                                                     TEMP
                                                                                             XE
                                                                                                          HEAT FLUX
                                                                                                                         HEAT LOSS
 (M)
              (K)
                                   W/M##2
                                                 W/M##2
                                                                                                           W/M##2
                                                                        (M)
                                                                                      (K)
                                                                                                                          W/M##2
  .013
             445.8
                        . 183
                                  4.28E+04
                                                                                                . 183
                                                                         .013
                                                                                     445.8
                                                                                                          4.28E+04
  .051
             457.1
                        .188
                                  4.31E+04
                                                                         .051
                                                                                     457.1
                                                                                                          4.31E+04
                                                                                                . 188
                        . 190
  .063
              454.9
                                  4.29E+04
                                                                         .063
                                                                                     454.9
                                                                                                . 190
                                                                                                          4.29E+04
                        .193
  .089
              464.0
                                  4.33E+04
                                                                         .089
                                                                                     464.0
                                                                                                          4.33E+04
                                                                                                . 193
  . 114
             458.0
                        . 197
                                  4.33E+04
                                                                         . 114
                                                                                     458.0
                                                                                                . 197
                                                                                                         4.33E+04
  . 140
             454.8
                        .200
                                  4.29E+04
                                                                                                .200
                                                                         , 140
                                                                                     454.8
                                                                                                          4.29E+04
             456.6
  . 165
                         .203
                                  4.31E+04
                                                                                                .203
                                                                         . 165
                                                                                     456.6
                                                                                                          4.31E+04
                        .227
  .317
              517.0
                                  5.73E+04
                                                                                                .227
                                                                         .317
                                                                                     517.0
                                                                                                          5.73E+04
 . 394
                        .244
             693.5
                                  8.12E+04
                                                                         . 394
                                                                                     693.5
                                                                                                . 244
                                                                                                          8.12E+04
  .470
             864.2
                        .261
                                  6.47E+04
                                                                         .470
                                                                                                          6.47E+04
                                                                                     864.2
                                                                                                .261
  .546
             909.1
                         .275
                                 5.42E+04
                                                                                     909.1
                                                                         .546
                                                                                                .275
                                                                                                          5.42E+04
  .622
             932.5
                         .288
                                 5.23E+04
                                                                                                .288
                                                                         .622
                                                                                     932.5
                                                                                                          5 23E+04
                        .300
  . 598
             953.7
                                  5.10E+04
                                                                                                .300
                                                                         .698
                                                                                     953.7
                                                                                                          5.10E+04
                         .312
  .775
             971.9
                                  5.03E+04
                                                                         .775
                                                                                                .312
                                                                                     971.9
                                                                                                          5.03E+04
                         . 324
  .851
             989.0
                                  4.94E+04
                                                                                                . 324
                                                                         .851
                                                                                     989.0
                                                                                                          4.94E+04
  .927
             999.3
                         .336
                                  4.85E+04
                                                                                                . 336
                                                                         .927
                                                                                     999.3
                                                                                                          4.85E+04
 1.003
             1004.2
                        . 347
                                  4.72E+04
                                                                        1.003
                                                                                    1004.2
                                                                                                . 347
                                                                                                          4.72E+04
 1.067
             937.1
                         .356
                                  4.04E+04
                                                3.73E+03
                                                                                                . 356
                                                                        1.067
                                                                                     937.1
                                                                                                          4.04E+04
                                                                                                                        3.73E+03
 1.156
              982.9
                         .367
                                  4.19E+04
                                                 1.57E+03
                                                                                                . 367
                                                                        1.156
                                                                                     982.9
                                                                                                          4.19E+04
                                                                                                                         1.57E+03
 1.232
             934.2
                         .377
                                  4.20E+04
                                                                        1,232
                                                                                     934.2
                                                                                                          4.20E+04
                                                                                                .377
             944.6
 1.257
                        .381
                                  4.54E+04
                                                                        1.257
                                                                                     944.6
                                                                                                          4.54E+04
                                                                                                . 381
             957.3
                        .390
 1.321
                                  4.47E+04
                                                                                     957.3
                                                                                                .390
                                                                        1.321
                                                                                                          4.47E+04
                         .399
 1.384
             1022.3
                                  4.52E+04
                                                                                                .399
                                                                        1.384
                                                                                    1022.3
                                                                                                          4.52E+04
 1.460
             1041.1
                        .409
                                  4.50E+04
                                                                        1.460
                                                                                    1041.1
                                                                                                . 409
                                                                                                          4.50E+04
 1.511
             1032.8
                                  4.23E+04
                         .416
                                                                        1.511
                                                                                    1032.8
                                                                                                .416
                                                                                                          4.23E+04
 1,562
             981.7
                         .423
                                  4.55E+04
                                                                        1.562
                                                                                     981.7
                                                                                                .423
                                                                                                          4.55E+04
 1.613
             1006.7
                         .430
                                  4.56E+04
                                                                        1.613
                                                                                    1006.7
                                                                                                .430
                                                                                                          4.56E+04
 1.689
             1037.7
                         .441
                                  4.50E+04
                                                                        1.689
                                                                                    1037.7
                                                                                                1414 7
                                                                                                          4.50E+04
 1.765
             1051.0
                         .452
                                  4.43E+04
                                                                        1.765
                                                                                    1051.0
                                                                                                .452
                                                                                                          4.43E+04
             1040.3
 1.816
                         .459
                                  4.13E+04
                                                                        1.816
                                                                                    1040.3
                                                                                                .459
                                                                                                          4.13E+04
 1.867
             980.9
                         .465
                                  4, 39E+04
                                                                        1.867
                                                                                     980.9
                                                                                                .465
                                                                                                          4.39E+04
 1.918
             976.4
                         .472
                                  4.34E+04
                                                                        1.918
                                                                                     976.4
                                                                                                .472
                                                                                                          4.34E+04
1.994
             993.8
                         .482
                                  4.21E+04
                                                                        1.994
                                                                                     993.8
```

2.070

POINT SER	IAL NO. 31	02.030 (TIME= 190.50 SE	C)	POINT SERI	AL NO. 110	2.040 (11	ME= 218.50 SEC	(1)
				C-M**2					
FCV TEMPER	RATURE (TE-F	CV-1T1	525.0 K		FCV TEMPER	ATUREL TE-FO	V-1T)	524.9 K	
LHP INLET	ENTHALPY		1.095E+06 J/KG		LHP INLET	ENTHALPY	1.	094E+06 J/KG	
TEST SECT	ION:				TEST SECTION	ON:		SELECTION DESIGN	
PRESS	SURE		.81 MPA		PRESS	URE		.81 MPA	
SAT	TEMP		444.21 K		SAT T	EMP		444.22 K	
MASS	FLUX		39.91 KG/SE	C-M**2	MASS	FLUX		39.74 KG/SEG	C-M##2
INLE	QUALITY		. 181		INLET	QUALITY		. 181	
INLE	ENTHALPY		1.095E+06 J/KG		INLET	ENTHALPY	1.	094E+06 J/KG	
QUENCH FRO	ITAC				QUENCH FRO	NT:			
ELEVA	ATION		.390 M		ELEVA	LION		.472 M	
VELOC	111Y		.0030 M/SEC		VELOC	ITY		.0028 M/SEC	
QUAL	IIY		.390 M .0030 M/SEC .243 0.0 W		QUALI	IY		.253	
NET THE PO	DHER TO FLU	I D	0.0 W		NET LHP PO	WER TO FLUI	D	0.0 W	
VAPOR TEMP	PERATURE MEA	ASUREMENT	LOCATION INFORM	ATION	VAPOR TEMP			CATION INFORMA	ATION
(M)	(M)	(K)	AC AA		ELEVATION (M)	(M)	(K)	~~	
1.841	1,451	801.2 .	459 .333		1.232	.760	687.9 .37	6 .299	
WALL TEMPE	RATURE MEAS	SUREMENT L	OCATION INFORMA	TION	WALL TEMPE	RATURE MEAS	UREMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOS
(M)	(K)		W/M**2	TION HEAT LOSS W/M**2	(M)	(K)		W/M##2	W/M**2
.013	TEMP (K) 445.8 457.1 454.9 464.0 458.0 454.8 456.6 517.0 693.5 864.2 909.1 932.5	. 183	4.28E+04 4.31E+04 4.29E+04 4.33E+04	3 735+03	.013 .051 .063 .089 .114 .140	hhh h	183	4.25E+04 4.27E+04 4.26E+04 4.28E+04 4.28E+04 4.28E+04 4.27E+04 4.42E+04 6.47E+04 6.80E+04 7.89E+04 5.21E+04 5.21E+04 5.02E+04	
.051	457.1	. 188	4.31E+04		.051	455.3	188	4.27E+04	
.063	454.9	. 190	4.29E+04		.063	453.5	. 190	4.26E+04	
.089	464.0	. 193	4.33E+04		.089	461.4	. 193	4.29E+04	
. 114	458.0	. 197	4.33E+04		. 114	455.4	. 197	4.28E+04	
, 140	454.8	.200	4.29E+04		. 140	453.4	.200	4.26E+04	
. 165	456.6	.203	4.31E+04		. 165	454.7	.203	4.27E+04	
. 317	517.0	.227	5.73E+04		. 317	462.6 500.9	. 224	4.42E+04	
, 394	693.5	. 244	8.12E+04		. 394	500.9	.237	6.47E+04	
. 070	864.2	.261	4.29E+04 4.31E+04 5.73E+04 8.12E+04 6.47E+04		.470	697.3	.253	6.80E+04	
.622	932.5	.275	5.42E+04		.546	843.1	.271	7.89E+04	
.698	953.7	. 288	5.23E+04 5.10E+04		.622	903.3	.287	5.49E+04	
.775	971.9	.312	5, 102 + 04		.698	930.0	.299	5.21E+04	
.851	989.0	. 324	5.03E+04 4.94E+04		.851	950.9 970.1	. 324	5 035404	
.927	999.3	.336	4. 85 F + 04		.927	983.1	. 336	5.02E+04	
1.003	1004.2	. 347	4.85E+04 4.72E+04 4.04E+04 4.19E+04 4.20E+04		1.003	991.1	. 347	4 85E+04	
1.067	937.1	. 356	4.04E+04	3.73E+03 1.57E+03	1,067	930.5	.356	h 21E+04	3.62E+03
1.156	982.9	. 367	4.19E+04	1.57E+03	1.156	978.2	. 368	4 38E+04	1.71E+03
1.232	934.2	.377	4.20E+04		1.232	928.4	.379	4.35E+04	
1.257	944.6	. 381	4.54E+04 4.47E+04		1.257	937.3 952.0 1015.2	. 382	4.67E+04	
1.321	957.3	. 390	4.47E+04		1.321	952.0	. 392	4.60E+04	
1.384	1022.3	. 399	4.52E+04		1.384	1015.2	.401	4.64E+04	
1.460	1041.1	. 409	4.50E+04		1.460	1034.8	,412	5.02E+04 4.94E+04 4.85E+04 4.21E+64 4.38E+04 4.35E+04 4.67E+04 4.60E+04 4.61E+04 4.31E+04 4.61E+04	
1.511	1032.8	.416	4.23E+04		1.511	1020.8	.419	4.31E+04	
1.562	981.7	.423	4.55E+04		1.562	975.4			
1.613	1006.7	.430	4.56E+04		1.613	1000.0			
1.689	1037.7	.441	4.50E+04		1.689	1032.3	. 444	4.55E+04 4.50E+04 4.20E+04	
1.765	1051.0	.452	4.43E+04		1.765	1047.2	.455	4.50E+04	
1.816	1040.3	.459	4.13E+04		1.816	1037.4	.462	4.20E+04	
1.867	980.9 976.4	.465	4.39E+04		1.867	979.0 975.8	.469 .476 486 .97	4.44E+04	
1.994	993.8	.472	4.34E+04 4.21E+04		1.918	975.8	.476	4.41E+04	
	773.0	.402	4.211.704		1.994	996.4	486	4.31E+04	
2.070	1006.5	.492	4.15E+04		2.070	2020 5	5.000.00		

2.070

996.5

1010.6

.487

.497

4.32E+04

4.28E+04

1.994

2.070

996.4

1010.5

. 486

.497

4.31E+04

4.27E+04

POINT SERIA	L NO. 11	02.050 (TIME= 241.50 SEC)	POINT SERIA	L NO. 21	02.050	(TIME= 241	50 SEC)
LOOP PRESSU	RE(PE-3)		7.94 MPA		LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT	RE(PE-3)	04.171	7.94	MPA	
FCV TEMPERA	TUREL TE-FO	CV-11)	525.0 K		FCV TEMPERA	TURE (IE - F	CV-11)	525.0	K	
THE INTEL	NTHALPY		1.095£+06 J/KG		LHP INLET E	NIHALPY		1.0951+00	J/KG	
TEST SECTIO	N:				IEST SECTIO	N:		0.1	MDA	
PRESSU	RE		.81 MPA		PRESSU	HE.		10.01	MPA	
SAI TE	MP		444.25 K	*****	SALIE	MP		30 45	NC /CEC	-H##2
MASS F	LUX		39.45 KG/SEC	-M==2	MASS F	CUALLTY		39.45	KU/ SEC	-M5
INLET	QUALITY		.182		INLET	CHALLITY		1 0055406	1140	
INLET	ENTHALPY		1.095E+06 J/KG		OUENCH ERON	ENTHALPY		1.0936.400	3/10	
QUENCH FROM	100		5 h 3 M		QUENCH FROM	LON		543	м	
ELEVAI	TON		. 243 M		VELOCI	IV		0035	M/SEC	
VELOCI	11		.0035 M/SEC		OHALLT	v .		265	11, 510	
NET LHP POW	ER TO FLU	I D	0.0 W		NET LHP POW	ER TO FLU	10	0.0	W	
WAROR TEMPE	DATHDE ME	ASHDEMENT I	OCATION INFORMA	TION	VAPOR TEMPE ELEVATION	RATURE ME	ASUREMENT	LOCATION	NEORMA	TION
ELEVATION	DZOF	TV	KE XA	TON	FLEVATION	DZQF	TV	XE XA	191 20111111	
(M)	(M)	(K)	AL AA		(M)	(M)	(K)	****		
(11)	(111)	101								
1.232	.689	670.8 .3	379 .305		1.537	.993	731.6	.423 .324		
WALL TEMPER	ATURE MEAS	SUREMENT LO	CATION INFORMAT	ION	WALL TEMPER ELEVATION (M)	ATURE MEA	SUREMENT	LOCATION IN	FORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2	(M)	(K)		W/M*	*2	M/M##5
			b 025 tob			443.9 454.3 452.7 459.8 454.6 453.9 458.3 546.1 718.6 840.4 906.4 9031.4 953.2 968.1 978.0 922.2	107	4.23E 4.26E 4.25E 4.27E 4.27E 4.25E 4.33E 4.49E 6.04E 8.42E 7.57E	ADb	
.013	443.9	. 183	4.231+04		.013	443.9	, 102	4.231	+04	
.051	454.3	100	4.20E+04		.063	452 7	190	4.200	+04	
.089	452.7	193	4,23E+04 4,26E+04 4,25E+04 4,28E+04 4,27E+04 4,25E+04		.089	459 8	193	4 286	+04	
.114	459.0	197	h 27F+04		.114	454.0	197	4 276	+04	
. 140	152 6	200	h 25F+0h		. 140	452.6	200	h 258	+04	
. 165	453.0	204	4.25E+04 4.25E+04 4.33E+04		165	453.9	204	4.256	+04	
217	458.3	.224	4.33E+04		317	458.3	. 224	4.33F	+04	
. 394	468.8 546.1 718.6	.235 .248 .265	4 491 +04		. 394	468.8	.235	4.498	+04	
.470	546.1	.248	6.04E+04		.470	546.1	. 248	6.048	+04	
.546	718.6	.265	6.04E+04 8.42E+04		.470	718.6	. 265	8.42E	+04	
.622	840.4	. 285	7.57E+04		.622	840.4	.285	7.57E	+04	
.698	906.6	. 300	5.41E+04		.698	906.6	.300	5.41E	+04	
. 775	931.4	.313 .325 .337 .349	5.18E+04		.775	931.4	. 313	5.18E		
.851	953.2	. 325	5.06E+04		.851	953.2	. 325	5.06E	+04	
.927	968.1	. 337	4.98E+04		.927	968.1	. 337	h ORE	+04	
1.003	978.0	. 349	4.92E+04		1.003	978.0	. 349	4.92E		
1.067	922.2	. 358	4.32E+04	3.37E+03	1.067	922.2	.349 .358 .371 .382 .385	4.32E	+04	3.37E+03
1.156	970.1	. 371	4.526+04	1.47E+03	1.156	970.1	. 371	4.52E	+04	1.47E+03
1.232	920.4	. 382	4.44E+04 4.73E+04		1.232	920.4	. 382	4.448	+04	
1.257	928.4	. 385	18 1 18 15 1 15 1 15 1 15 1 15 1 15 1 1		1.257	928.4	. 385	4.73E		
1.321	944.9	. 395	4.67E+04		1.321	944.9	. 395	4.076		
1.384	1006.9	.404	4.70E+04		1.384	1006.9	.404			
1.460	1027.5	.415	4.66E+04		1.460	1027.5	.415	4.66E	+04	
1.511	1019.9	423	4.37E+04		1.511	1019.9	.423	4.37E	+04	
	968.5	.430	4.65E+04		1.562	968.5	.430	4.65E		
1.613	993.1	.437	4.64E+04		1.613	993.1	.437			
1.689	1026.5	. 449	4.60E+04		1.689	1026.5	.449	4.60E	+04	
1.765	1042.7	.460	4.53E+04		1.765	1042.7	. 460	4.53E	104	
1.816	1033.5	.467	4.24E+04 4.47E+04		1.816	1033.5	. 467	4.24E	104	
1.867	976.3	.474	4.4/1+04		1.867	976.3	. 474	4.47E	104	
1.918	974.0	.481	4.44E+04 4.37E+04		1.918	974.0	.481	4.44E	104	
1.994	996.5	.460 .467 .474 .481 .491	4.376+04		1.994	996.5	. 491	4.53E 4.24E 4.47E 4.44E 4.37E 4.33E	104	
2.070	1011.6	.502	4.33E+04		2.070	1042.7 1033.5 976.3 974.0 996.5 1011.6	.502	4.33E	104	

1.994

2.070

996.6

1011.6

.481

.491

4.44E+04

4.37E+04 4.33E+04

	7,112.2	ri will kan ken	102. TUE			THEL TO	N-CHI EAF	E. P. S. P. E. SW.	1 102	
POINT	SERIAL NO. 31	02 050 (1)				L NO. 11	02.060	(TIME=	265.50 SEC	0)
FCV TI LHP III	PRESSURE(PE-3) EMPERATURE(IE-F VLET ENTHALPY SECTION:	CV-1T) 1,	7.97 MPA 525.0 K 095E+06 J/KG		LOOP PRESSUI FCV TEMPERA LHP INLET EL	RE(PE-3) TURE(TE-1 NTHALPY	CV-11)	1.096	7.94 MPA 25.1 K +06 J/KG	
	PRESSURE SAT TEMP		.81 MPA 444.24 K	-M**2	PRESSUI SAT TEI	RE MP		441	.81 MPA	
	INLET QUALITY		.181 .095F+06 .1/KG		INLET	QUALITY		1 0061	182	2-M**5
QUENCI	FRONT:		.540 M		QUENCH FROM	I:		1.0901	623 M	
	VELOCITY QUALITY		.0035 M/SEC		VELOCI QUALITY	IY Y		. (031 M/SEC 280	
NET LI	IN POWER TO FLU	IID	0.0 W		NET LHP POWE	ER TO FLU	HD		0.0 W	
VAPOR ELEVA (M)	TEMPERATURE ME	ASUREMENT LO	CATION INFORMA	TION	VAPOR TEMPER ELEVATION (M)	RATURE ME	ASUREMENT IV (K)	LOCAT	ON INFORMA	ATTON
1.84	1,302	786.7 .46	66 . 342		1.232	.609	640.7	. 383	316	
WALL ELEVA (M)		ASUREMENT LOC XE	HEAT FLUX W/M**2	HEAT LOSS W/M##2	WALL TEMPERA ELEVATION (M)	TEMP (K)	SUREMENT	LOCATIO	ON INFORMA HEAT FLUX W/M**2	HEAT LOSS W/M**2
.01		. 183	4.23E+04 4.26F+04		.013	443.6 453.6 452.0 458.4	. 184		1.25E+04 1.26E+04 1.25E+04 1.29E+04	
.06	452.7	. 190	4.25E+04		.063	452.0	190	1	1.255+04	
.089		. 193	4.28E+04		.089	458.4	. 194		.29E+04	
. 11		. 197	4.27E+04		. 114	453.1	. 197		1.615.704	
. 140		.200	4.25E+04		. 140	452.1	.201		1.26E+04	
. 16		.204	4.25E+04		. 165	453.2	. 204	L.	1.26E+04	
. 39		.235	4.34E+04 4.51E+04		.317	455.9	. 225		1.29E+04	
. 470		.248	6.10E+04		. 394	462.7	.236		1.38E+04	
. 540		.265	8.42E+04		.546	484.2 549.5	. 247		1.75E+04 1.43E+04	
.623	846.9	.285	7.48E+04		.622	636.9	.280		.81E+04	
. 691	907.8	. 300	5.40E+04		.698	846.4	.298		.09E+04	
. 77	932.3	. 313	5.17E+04		.775	906.6	. 314		.52E+04	
. 85		. 325	5.05E+04		.851	933.4	. 327		.21E+04	
.92		. 337	4.98E+04		.927	950.8	. 340		.09E+04	
1.00		. 349	4.91E+04	3.38E+03 1.44E+03	1.003	962.4	. 352		.02E+04	
1.15		.371	4.32E+04 4.52E+04	3.38E+03	1.067	911.7	. 362		.46E+04	2.84E+03
1.23	920.8	.382	4.44E+04	1.442 +03	1.156	959.3	. 375		1.66E+04	1.24E+03
1,25		.385	4.73E+04		1.257	910.5	. 386		51E+04	
1.32	945.2	. 395	4.67E+04		1.321	935.9	. 390		. 76E+04	
1.38		. 404	4.70E+04		1.384	996.6	.409		. 80E+04	
1.460	1027.8	. 415	4.66E+04		1.460	1018.2	.421		.75E+04	
1.51		.423	4.37E+04		1.511	1011.1	428	- 1	47F+04	
1.56		. 430	4.64E+04		1.562	960.3	,436	1	.71E+04 .70E+04 .65E+04 .60E+04	
1.61		.437	4.64E+04		1.613	985.1	. 4444	1	. 70E+04	
1.68		. 448	4.60E+04		1.689	1010 8	. 455	- 4	.65E+04	
1.76		459	4.53E+04		1.765	1037.0	.466	- 1	.60E+04	
1.81			4.24E+04		1.816	1028.5	,4/4	- 4	. 30£+04	
1.86		.473	4.488+04		1.867	972.9	.481		.52E+04	
1.91	8 974.1	.481	4.44E+04		1.918	971 3	488	- I	hOF+Oh	

1.918

1.994

972.9 971.3

995.3

1011.2

.474 .481 .488 .499

4.52E+04 4.49E+04

4.43E+04 4.41E+04

POINT SERIA	AL NO. 210	2.060 (T	IME= 265.50 SE	C)	POINT SERI	AL NO. 31		TIME= 265.50 SEC	C)
LOOP PRESSI	URE(PE-3)		7.94 MPA 525.1 K .096E+06 J/KG	C-M**2	LOOP PRESS	URE(PE-3)		7.94 MPA 525.1 K 1.096E+06 J/KG	
FCV TEMPERA	ATURE (TE-FC	V-1T)	525.1 K		FCV TEMPER	ATURE (TE-F	CV-IT)	525.1 K	
LHP INLET I	ENTHALPY	1	.096E+06 J/KG		LHP INLET	ENTHALPY		1.096E+06 J/KG	
TEST SECTIO	ON:				TEST SECTI	ON:		.81 MPA 444.21 K 38.83 KG/SEG .182 1.096E+06 J/KG	
PRESSI	IRE		.81 MPA		PRESS	URE		.81 MPA	
SAT TE	MP		444.21 K		SAT I	EMP		444.21 K	
MASS I	FLUX		38.83 KG/SE	C-M**2	MASS	FLUX		38.83 KG/SEG	C-M##2
INLET	QUALITY		. 182		INLET	QUALITY		. 182	
INIET	ENTHALPY	1	.096E+06 J/KG		INLET	ENTHALPY		1.096E+06 J/KG	
QUENCH FROM	VI:				QUENCH FRO	NT:			
FLEVAT	TION		.623 M		ELEVA	TION		.623 M	
VELOC	ITY		.0031 M/SEC		VELOC	ITY		.0031 M/SEC	
QUAL LT	IV		. 280		QUALI	TY		.280	
NET LHP POL	WER TO FLUIT	D	.623 M .0031 M/SEC .280 0.0 W		NET LHP PO	WER TO FLU	ID	0.0 W	
VAPOR TEMP	ERATURE MEA	SUREMENT LO	OCATION INFORM	ATION	VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATION INFORMA	ATION
ELEVATION	DZQF	TV X	E XA		ELEVATION	DZQF	IV	XE XA	
(M)	(M)	(K)			(M)	(M)	(K)		
	.914		28 .333		1.841	1.219	776.6	474 .350	
WALL TEMPER	RATHRE MEASI	IREMENT LO	CATION INFORMA	TION HEAT LOSS W/M**2	WALL TEMPE	RATURE MEA	SUREMENT L	OCATION INFORMAT	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2	(M)	(K)		W/M**2	W/M**2
				W/M**2	012	662 6	184		
.013	443.6	. 184	4.25E+04		.013	443.6	. 104	4.26E+04	
.051	423.6	. 189	4.26E+04		.051	453.6	. 189	4.25E+04	
.063	452.0	. 190	4.25E+04		.063	452.0 458.4 453.1	. 190		
.089	458.4	. 194	4.29E+04		.089	458.4	. 194	4.29E+04	
.114	453.1	. 197	4.27E+04		. 114	453.1	. 197	4.27E+04	
. 140	452.1	.201	4.26E+04		. 140	452.1		4.26E+04	
. 165	453.2	.204	4.26E+04		. 165	453.2	.204	4.26E+04	
. 317	455.9	.225	4.29E+04		.317	455.9	.225	4.29E+04	
. 394	462.7	.236	4.38E+0/		. 394	462.7	.236	4.38E+04	
.470	484.2	.247	4.75E+04		.470	484.2	.247	4.75E+04	
.546	549.5	.262	7.43E+04		.546	549.5	.262	7.43E+04	
.622	686.9	.280	7.81E+04		.622	686.9	.280	7.81E+04	
.698	846.4	.298	7.09E+04		. 698	846.4	.298	7.09E+04	
.775	906.6	. 314	5.52E+04		.775	906.6	. 314	5.52E+04	
.851	933.4	. 327	5.21E+04		.851	933.4	. 327	5.21E+04	
.927	950.8	. 340	5.09E+04		.927	950.8	. 340	5.09E+04	
1.003	962.4	. 352	5.02E+04		1.003	962.4	.352	5.02E+04	0.015103
1.067	911.7	. 362	4.46E+04 4.66E+04	2.84E+03 1.24E+03	1.007	911.1	. 362	4.46E+04	2.84E+03
1.156	959.3	. 375	4.66E+04	1.24£+03	1.156	959.3	. 375	4.66E+04	1.24E+03
1.232	910.5	. 386	4.211.704		1.232	910.5	. 386	4.51E+04	
1.257	917.7	. 390	4.84E+04		1.257	917.7	. 390	4.84E+04	
1.321	935.9	. 399	4.76E+04		1.321	935.9	. 399	4.76E+04	
1.384	996.6	. 409	4.80E+04		1.384	996.6	. 409	4.80E+04	
1.460	1018.2	.421	4.75E+04		1.460	1018.2	.421	4.75E+04	
1.511	1011.1	.428	4.47E+04		1.511	1011.1	.428	4.47E+04	
1.562	960.3	.436	4.71E+04		1.562	960.3	.436	4.71E+04	
1.613	985.1	. 444	4.70E+04		1.613	985.1	. 444	4.70E+04	
1.689	1019.4	.455	4.65E+04		1.689	1019.4	. 455	4.65E+04	
1.765	1037.0	.466	4.60E+04		1.765	1037.0	.466	4.60E+04	
1.816	1028.5	.474	4.30E+04		1.816	1028.5	4.784	4.30E+04	
	972.9	. 481	4.52E+04		1.867	972.9	.481	4.52E+04	
1.867	916.9								
1.867	971.3	.488	4.49E+04		1.918	971.3	. 488	4.49E+04	
		.488			1.918	971.3 995.3	.488	4.52E+04 4.49E+04 4.43E+04 4.41E+04	

			TIME= 289.50 SE					TIME= 288.50 SEC	
LOOP PRESS	SURE(PE-3)		7.96 MPA	EC-M**2	LOOP PRESSU	DRE(PE-3)		7.95 MPA	
FCV TEMPER	RATURE (TE-FCV	(-1T)	525.0 K		FCV TEMPERA	TURE (TE-	FCV-11)	525.0 K	
LHP INLET	ENTHALPY		1.095E+06 J/KG		LHP INLET E	NTHALPY		1.095E+06 J/KG	
TEST SECT	ION:				TEST SECTIO	N:			
PRESS	SURE		.81 MPA		PRESSU	IRE		.81 MPA	
SAT	EMP		444.20 K		SAT TE	MP		444 55 K	
MASS	FLUX		38.86 KG/SE	EC-M##2	MASS F	LUX		38 82 KG/SI	C-M##2
INLET	QUALITY		. 181		INLET	QUALITY		181	
INLET	ENTHALPY		1.095E+06 J/KG		INLET	ENTHAL PY		1.095F+06 1/KG	
QUENCH FRO	INT:				QUENCH FROM	IT:		1.0752.00 0710	
ELEVA	ATION		.700 M		FLEVAT	LON		-697 M	
VELOC	CITY		.0033 M/SEC		VELOC1	TY		0033 M/SEC	
QUAL	TY		.289		QUALIT	Y		289	
NET LHP PO	WER TO FLUID		.700 M .0033 M/SEC .289 0.0 W		NET LHP POW	ER TO FL	UID	0.0 W	
ELEVALION	DZQF	TV	XE XA		ELEVALION	DZDE	IV	XE XA	
(M)	(M)	(K)		MATION	(M)	(M)	(K)		
1.232	.532 6	18.4 .	381 .321	2.42E+03 7.58E+02	1.537	.840	693.0	.430 .340	
WALL TEMPS	RATURE MEASU	REMENT 10	OCATION INFORMA	TION	WALL TEMPER	ATURE ME	ASHREMENT	LOCATION INSORMA	TION
ELEVATION	TEMP	XF	HEAT FLUX	HEAT LOSS	FIFVATION	TEMP	XE XE	HEAT FLUX	WEAT LOSS
(M)	(K)		W/M##2	W/M##2	(M)	(K)	AL.	W/M##2	W/M##2
0.17	b.b.2 0	102	h 055-06				100		
.013	443.2	. 163	4.251+04		.013	443.2	. 183	4.25E+04	
.051	453.0	, 100	4.275+04		.051	453.1	. 188	4.27E+04	
.003	451.0	. 190	4.276+64		.063	451.6	. 190	4.2/E+04	
.009	437.4	107	4.291104		.089	457.5	. 194	4.29E+04	
140	456.4	201	4.275+04		.114	452.5	. 197	4.271+04	
165	101.7	201	4.20E+04		. 140	451.7	.201	4.26E+04	
317	452.0	225	4.205+04		. 165	452.8	.204	4.26E+04	
204	150 1	226	h 3hF+04		317	454.4	.225	4.291+04	
1,70	474 0	246	4.346104		. 394	439.2	.230	4.341.+04	
546	487 3	258	h BOE AND		506	474.3	.240	4.48E+U4	
622	522 3	272	6 715+04		622	520 h	272	4.82E704	
698	704 6	280	7 h5F+0h		608	720.4	200	0.84E+04	
775	827 1	307	7 475+04		775	922 6	209	7.445.704	
851	907.8	323	5 535+04		851	000.1	300	7.38E+04	
927	930 4	336	5 24F+04		927	031 3	336	5.316+04	
1.003	944.6	349	5.12F+04		1 003	305 0	340	5 115404	
1.067	899.3	359	4.59F+04	2 h2F+03	1.067	800 0	350	h 595+0h	2 465403
1.156	946.5	3/2	4.79F+04	7 58F+02	1 156	947 1	372	h 7054/h	7 355+03
1.232	898.9	384	4 58F+04	1.300.02	1 232	800 h	384	4. 195404	7.35E+02
1.257	905.5	. 388	4.86E+04		1.257	906.0	388	4.56E+04	
1.321	925.4	. 397	4.80E+04		1 321	925 9	307	h 80F+0h	
1.384	985.1	.407	4 84F+04		1 384	985 6	h07	4.00E+04	
1.460	1007.6	,419	4.80F+0h		1 060	1008 1	410	4.042.704	
1.511	1001.1	.427	4.50€+04		1.511	1001.6	427	4 50E+04	
1.562	951.3	. 434	4.74E+04		1.562	951.7	11311	4 735+04	
1.613	976.4	.442	4.73E+04		1.613	976 8	454	4.735+04	
1.689	1011.8	.453	4.68E+0#		1.689	1012 1	1153	U 68E40h	
1.765	1030.5	. 465	4.63E+04		1.765	1030 8	165	h 625+04	
1.816	1022.8	.472	4.32E+04		1.816	1023 1	672	4.02E+04	
1.867	969.0	.479	4.54E+04		1.867	969 1	b70	h 5hE+0h	
1.918	968.3	,487	4.51E+04		1.918	968 0	419	4.596+04	
1.994	993.2	.497	4.47E+04		1 994	993 3	407	h 1:75+0h	
2.070	1009.8	.508	4.44E+04		2.070	1009 9	500	h hh +00	
					2,010	1009.9	. 509	4.44.704	

2.070

993.1

1009.7

.497

.508

4.47E+04

4.45E+04

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INEL POST-CHE EXPERIMENT NO. 102
                                                                                  INEL FOST-CHE EXPERIMENT NO. 102
POINT SERIAL NO. 3102.070 (TIME= 290.50 SEC)
                                                                      POINT SERIAL NO. 2102.080 (TIME= 309.50 SEC)
LOOP PRESSURE(PE-3)
                                  7.95 MPA
                                                                      LOOP PRESSURE ( PE-3)
                                                                                                        7.96 MPA
FCV TEMPERATURE(TE-FCV-11)
                              525.0 K
                                                                      FCV TEMPERATURE (TE-FCV-1T)
                                                                                                    525.0 K
LHP INLET ENTHALPY
                            1.095E+06 J/KG
                                                                      LHP INLET ENTHALPY
                                                                                                   1.095E+06 J/KG
TEST SECTION:
                                                                      TEST SECTION:
    PRESSURE
                                 .81 MPA
                                                                           PRESSURE
                                                                                                         .81 MPA
    SAT TEMP
                             444.21 K
                                                                           SAT TEMP
                                                                                                     444.18 K
    MASS FLUX
                              38.89 KG/SEC-M**2
                                                                                                    38.67 KG/SEC-M**2
                                                                           MASS FLUX
     INLET QUALITY
                                  . 181
                                                                          INLET QUALITY
                                                                                                        . 182
     INLET ENTHALPY
                             1.095E+06 J/KG
                                                                           INLET ENTHAL PY
                                                                                                   1.095E+06 J/KG
QUENCH FRONT:
                                                                      QUENCH FRONT:
    ELEVATION
                                  .704 M
                                                                           ELEVATION
                                                                                                        .769 M
    VELOCITY
                                 .0033 M/SEC
                                                                           VELOCITY
                                                                                                       .0035 M/SEC
    QUALITY
                                 .290
                                                                           QUALITY
                                                                                                       .300
NET LHP POWER TO FLUID
                                  0.0 W
                                                                      NET LHP POWER TO FLUID
                                                                                                         0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
           DZQF
                    TV
                             XE XA
                                                                      ELEVATION
                                                                                 DZQF
                                                                                          TV
                                                                                                   XE XA
 (M)
            (M)
                     (K)
                                                                       (M)
                                                                                  (M)
                                                                                           (K)
1.841
           1.138
                  765.5 .475 .355
                                                                      1.537
                                                                                  .768 673.4 .432 .348
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                    XE HEAT FLUX HEAT LOSS
                                                                      ELEVATION
                                                                                   TEMP
                                                                                              XE
                                                                                                        HEAT FLUX
                                                                                                                      HEAT LOSS
 (M)
              (K)
                                   W/M##2
                                                 W/M**2
                                                                       (M)
                                                                                    (K)
                                                                                                         W/M**2
                                                                                                                       W/M##2
  .013
             443.2
                                  4.25E+04
                        . 183
                                                                        .013
                                                                                   443.0
                                                                                              . 183
                                                                                                        4.27E+04
 .051
             453.0
                        .188
                                  4.27E+04
                                                                       .051
                                                                                   452.6
                                                                                              .189
                                                                                                        4.28E+04
                        .190
 .063
             451.5
                                  4.26E+04
                                                                        .063
                                                                                   451.3
                                                                                              . 190
                                                                                                        4.28E+04
                        . 194
 .089
             457.4
                                  4.29E+04
                                                                        .089
                                                                                   456.7
                                                                                              . 194
                                                                                                        4.29E+04
 . 114
             452.4
                        . 197
                                  4.27E+04
                                                                       . 114
                                                                                   452.0
                                                                                              . 197
                                                                                                        4.28E+04
                        .201
                                                                       .140
 . 140
             451.7
                                4.25E+04
                                                                                   451.5
                                                                                              .201
                                                                                                        4,28E+04
 . 165
             452.8
                        .204
                                 4.27E+04
                                                                                              .204
                                                                       .165
                                                                                   452.4
                                                                                                        4.28E+04
                        .225
 .317
             454.3
                                 4.29E+04
                                                                                              .225
                                                                       .317
                                                                                   453.5
                                                                                                        4.29E+04
 . 394
             459.0
                        .236
                                 4.34E+04
                                                                       . 394
                                                                                   457.2
                                                                                              .236
                                                                                                        4.33E+04
                        .246
  .470
             473.7
                                 4.47E+04
                                                                                   469.7
                                                                                              .247
                                                                        470
                                                                                                       4.40E+04
 .546
             486.7
                        .258
                                 4.78E+04
                                                                        .546
                                                                                   476.9
                                                                                              . 258
                                                                                                        4.57E+04
 .622
                                  6.58E+04
             516.2
                        .272
                                                                                              .269
                                                                       .622
                                                                                   469.5
                                                                                                        4.63E+04
 .698
             684.8
                        . 289
                                  7.45E+04
                                                                        .698
                                                                                   569.9
                                                                                              .283
                                                                                                       6.91E+04
 .775
             820.6
                                 7.56E+04
                        .307
                                                                        .775
                                                                                   712.7
                                                                                              . 301
                                                                                                        7.63E+04
                        .323
                                                                       .851
 .851
             906.6
                                  5.56E+04
                                                                                              .320
                                                                                   855.7
                                                                                                        7.55E+04
             929.5
                        .336
                                  5.25E+04
  .927
                                                                        .927
                                                                                   909.2
                                                                                              . 336
                                                                                                        5.52E+04
 1.003
             943.8
                        . 349
                                  5.13E+04
                                                                                   927.3
                                                                       1,003
                                                                                              . 349
                                                                                                        5.28E+04
 1.067
             898.8
                        .359
                                  4.60E+04
                                                2.38E+03
                                                                       1.067
                                                                                   887.5
                                                                                              . 359
                                                                                                        4.73E+04
                                                                                                                      2.01E+03
                        .372
 1.156
             945.9
                                  4.79E+04
                                                7.86E+02
                                                                       1.156
                                                                                   934.6
                                                                                              .373
                                                                                                        4.93E+04
                                                                                                                      2.63E+02
                                                                                              . 385
 1.232
                                  4.58E+04
             898.4
                        . 384
                                                                       1.232
                                                                                   887.8
                                                                                                        4.67E+04
                                  4.87E+04
 1.257
             905.0
                        .38.
                                                                       1.257
                                                                                   894.3
                                                                                              .389
                                                                                                        4.96E+04
 1.321
             925.0
                        .397
                                  4.81E+04
                                                                                   915.8
                                                                       1.321
                                                                                              .399
                                                                                                        4.87E+04
 1.384
                                  4.85E+04
             984.6
                        .407
                                                                       1.384
                                                                                   974.3
                                                                                              .409
                                                                                                        4.92E+04
                                                                                   997.8
 1.460
             1007.2
                        .419
                                  4.81E+04
                                                                       1.460
                                                                                              .421
                                                                                                        4.87E+04
 1.511
             1000.7
                        .426
                                  4.50E+04
                                                                       1.511
                                                                                   992.0
                                                                                              .429
                                                                                                        4.57E+04
             951.0
                        .434
                                  4.74E+04
 1.562
                                                                       1.562
                                                                                   943.1
                                                                                              .436
                                                                                                        4.82E+04
 1.613
             976.0
                        .442
                                  4.73E+04
                                                                       1.613
                                                                                              . 4444
                                                                                   968.4
                                                                                                        4.80E+04
 1.689
             1011.4
                        .453
                                  4.68E+04
                                                                       1.689
                                                                                   1004.6
                                                                                              . 456
                                                                                                        4.75E+04
 1.765
             1030.2
                        .465
                                  4.64E+04
                                                                      1.765
                                                                                   1024.2
                                                                                                        4.69E+04
                                                                                              .468
 1.816
             1022.6
                        .472
                                  4.33E+04
                                                                      1.816
                                                                                   1017.4
                                                                                              .475
                                                                                                        4.39E+04
 1.867
             968.8
                        .479
                                  4.54E+04
                                                                      1.867
                                                                                   964.9
                                                                                              .482
                                                                                                        4.61E+04
 1.918
             968.1
                        .487
                                  4.52E+04
                                                                       1.918
                                                                                   964.8
                                                                                              .490
                                                                                                        4.59E+04
```

1.994

2.070

990.6

1007.7

.501

.512

4.53E+04

4.51E+04

1023.9

1017.1

964.7

964.5

990.4

1007.5

.468

.475

.482

.490

.501

.512

1.765

1.816

1.867

1,918

1.994

2.070

4.76E+04

4.70E+04

4.39E+04

4.62E+04

4.59E+04

4.54E+04

4.51E+04

```
POINT SERIAL NO. 3102.080 (TIME= 310.50 SEC)
                                                                        POINT SERIAL NO. 3102.090 (TIME= 331.50 SEC)
LOOP PLUSSURE(PE-3)
                                   7.96 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           7.96 MPA
FCV TEMPERATURE (TE-FCV-11)
                                  525.0 K
                                                                        FCV TEMPERATURE (TE-FCV-11)
                                                                                                          525.1 K
LHP INLET ENTHALPY
                              1.095E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                      1.095E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
                                    .81 MPA
     PRESSURE
                                                                             PRESSURE
                                                                                                             .81 MPA
     SAT TEMP
                                 444.18 K
                                                                             SAT TEMP
                                                                                                         444.19 K
     MASS FLUX
                                  38.69 KG/SEC-M**2
                                                                             MASS FLUX
                                                                                                          38.27 KG/SEC-M**2
     INLET QUALITY
                                   . 182
                                                                             INLET QUALITY
                                                                                                           . 182
     INLET ENTHALPY
                              1.095E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                      1.095E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
    ELEVATION
                                   .772 M
                                                                            ELEVATION
                                                                                                            .843 M
     VELOCITY
                                  .0035 M/SEC
                                                                             VELOCITY
                                                                                                          .0032 M/SEC
     QUALITY
                                  . 300
                                                                                                           . 312
                                                                             QUALITY
NET LIIP POWER TO FLUID
                                   0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                            0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZOF
                     TV
                             XE XA
                                                                        ELEVATION
                                                                                    DZQF
                                                                                              TV
                                                                                                      XE XA
 (M)
             (M)
                      (K)
                                                                         (M)
                                                                                     (M)
                                                                                              (K)
1.84:
           1.069
                    758.1 ,479 ,359
                                                                                     .998
                                                                        1.841
                                                                                             747.9 .483 .367
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                         XE
                                  HEAT FLUX
                                                 HEAT LOSS
                                                                        ELEVATION
                                                                                     TEMP
                                                                                                                          HEAT LOSS
                                                                                                 XE
                                                                                                           HEAT FLUX
 (M)
              (K)
                                    W/M##2
                                                  W/M##2
                                                                         (M)
                                                                                                            W/M*#2
                                                                                      (K)
                                                                                                                           W/M##2
 .013
              443.0
                         . 183
                                   4.27E+04
                                                                         .013
                                                                                      442.8
                                                                                                 . 184
                                                                                                           4.28E+04
 .051
             452.6
                         . 189
                                   4.28E+04
                                                                         .051
                                                                                      452.2
                                                                                                 . 189
                                                                                                           4.28E+04
 .063
             451.2
                         . 190
                                                                                                 . 191
                                  4.28E+04
                                                                          .063
                                                                                      450.9
                                                                                                           4.28E+04
                         . 194
 .089
             456.7
                                  4.29E+04
                                                                                                 . 194
                                                                          .089
                                                                                      456.2
                                                                                                           4.30E+04
 . 114
                         .197
             452.0
                                  4.28E+04
                                                                         . 114
                                                                                      451.5
                                                                                                 .198
                                                                                                           4.30E+04
 . 140
             451.5
                         .201
                                  4.28E+04
                                                                         . 140
                                                                                      451.3
                                                                                                 .201
                                                                                                           4.28E+04
 . 165
             452.4
                         .204
                                  4.28E+04
                                                                         .165
                                                                                      452.1
                                                                                                 .205
                                                                                                           4.29E+04
                         .225
 .317
             453.5
                                  4.29E+04
                                                                         . 317
                                                                                      452.7
                                                                                                           4.30E+04
                                                                                                 .226
 . 394
             457.1
                         .236
                                  4.33E+04
                                                                                                 .237
                                                                         . 394
                                                                                      455.5
                                                                                                           4.33E+04
 .470
             469.5
                         .247
                                  4.40E+04
                                                                         .470
                                                                                      466.5
                                                                                                 .247
                                                                                                           4.38E+04
 .546
             476.5
                         .258
                                  4.56E+04
                                                                         .546
                                                                                      470.0
                                                                                                 .258
                                                                                                           4.47E+04
 .622
             469.1
                                  4.62E+04
                         .269
                                                                         .622
                                                                                      462.1
                                                                                                 .269
                                                                                                           4.45E+04
 .698
             563.8
                         .283
                                  6.82E+04
                                                                         .698
                                                                                      492.3
                                                                                                 .281
                                                                                                           4.97E+04
 .775
             692.1
                         .301
                                   7.63E+04
                                                                         .775
                                                                                      552.8
                                                                                                 .296
                                                                                                           7.01E+04
 .851
             849.5
                         .320
                                   7.66E+04
                                                                                                 . 314
                                                                         .851
                                                                                      764.6
                                                                                                          7.99E+04
  .927
             908.0
                         .336
                                  5.54E+04
                                                                                                 . 334
                                                                          .927
                                                                                      858.7
                                                                                                           7.60E+04
 1.003
             926.4
                         . 349
                                  5.29E+04
                                                                                      903.4
                                                                         1.003
                                                                                                 . 350
                                                                                                           5.57E+04
                        .359
 1.067
             886.9
                                  4.74E+04
                                                1.99E+03
                                                                         1.067
                                                                                      872.2
                                                                                                 .361
                                                                                                           5.11E+04
 1.156
             933.9
                        .373
                                  4.93E+04
                                                 2.74E+02
                                                                         1,156
                                                                                      919.7
                                                                                                 . 376
                                                                                                           5.04E+04
 1,232
             887.2
                         . 385
                                  4.67E+04
                                                                                                 .388
                                                                        1,232
                                                                                      873.7
                                                                                                           4.75c+04
1.257
             893.7
                         . 389
                                   4.96E+04
                                                                        1,257
                                                                                      880.3
                                                                                                 . 392
                                                                                                           5.03E+04
             915.3
 1.321
                         . 399
                                  4.88E+04
                                                                                      904.2
                                                                        1.321
                                                                                                 .402
                                                                                                           4.92E+04
 1.384
             973.7
                         .409
                                  4.92E+04
                                                                        1.384
                                                                                      961.4
                                                                                                 .412
                                                                                                           4.97E+04
 1.460
             997.3
                         .421
                                  4.87E+04
                                                                        1.460
                                                                                      986.0
                                                                                                 .424
                                                                                                           4.92E+04
 1.511
             991.5
                         .429
                                  4.57E+04
                                                                         1.511
                                                                                      980.9
                                                                                                 .432
                                                                                                           4.62E+04
1.562
             942.6
                         436
                                  4.82E+04
                                                                        1.562
                                                                                      933.1
                                                                                                 .440
                                                                                                           4.82E+04
1.613
             968.0
                         . 4444
                                  4.80E+04
                                                                        1.613
                                                                                      958.8
                                                                                                 . 448
                                                                                                           4.80E+04
 1.689
                         .456
```

1.689

1.765

1.816

1.867

1.918

1.994

2.070

995.9

1016.5

1010.4

959.5

960.0

986.7

1004.4

.460

.472

.479

.487

.494

.506

.517

4.79E+04

4.74E+04

4.43E+04

4.65E+04

4.62E+04

4.58E+04

4.55E+04

1002.7

INEL POST-CHE EXPERIMENT NO. 102 INEL POST-CHE EXPERIMENT NO. 102 POINT SERIAL NO. 2102.100 (TIME= 345.50 SEC)

LOOP PRESSURE (PE-3) 7.94 MPA FCV TEMPERATURE (TE-FCV-1T) 525.4 K LHP INLET ENTHALPY 1.097E+06 J/KG TEST SECTION: PRESSURE .81 MPA SAT TEMP 444.14 K MASS FLUX 38.30 KG/SEC-##2 INLET QUALITY . 183 INLET ENTHALPY 1.097E+06 J/KG QUENCH FRONT: ELEVATION .888 M VELOCITY .0032 M/SEC QUALITY . 322 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA (M) (M) (K)

1.537 .649 636.8 .439 .364

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	M/W**5
.013	442.2	. 184	4.34E+04	
.051	452.0	. 190	4.26E+04	
.063	450.9	. 192	4.29E+04	
.089	455.9	. 195	4.29E+04	
. 114	451.0	. 199	4.28E+04	
. 140	451.1	.202	4.33E+04	
. 165	451.7	.206	4.31E+04	
.317	452.1	.227	4.23E+04	
. 394	454.4	.238	4.35E+04	
.470	464.5	.249	4.43E+04	
.546	466.1	.260	4.37E+04	
.622	459.0	.270	4.44E+04	
.698	480.9	.282	4.59E+04	
.775	484.4	.293	4.79E+04	
.851	519.2	. 311	9.32E+04	
.927	853.9	. 333	8.79E+04	
1.003	888.8	. 351	5.82E+04	
1.067	862.5	. 363	5.16E+04	
1.156	910.4	373	5.13E+04	
1.232	864.3	. 390	4.68E+04	
1.257	871.4	. 394	5.182+14	
1.321	897.1	.404	4.82E+04	
1.334	953.6	.415	5.04E+04	
1.460	979.0	.427	4.96E+04	
1.511	974.6	.435	4.64E+04	
1.562	927.5	.443	4.88E+04	
1.613	953.2	.451	4.87E+04	
1.689	991.0	.463	4.79E+04	
1.765	1012.0	.475	4.71E+04	
1.816	1006.5	.482	4.33E+04	
1.867	956.4	.489	4.51E+04	
1.918	957.7	.497	4.72E+04	
1.994	984.8	.509	4.54E+04	

.520

4.59E+04

POINT SERIAL NO. 3102.100 (TIME= 344.50 SEC)

LOOP PRESSURE (PE-3) 7.96 MPA FCV TEMPERATURE (TE-FCV-1T) 525.1 K LHP INLET ENTHALPY 1.095E+06 J/KG TEST SECTION: .81 MPA PRESSURE 444.14 K SAT TEMP MASS FLUX 38.31 KG/SEC-M**2 INLET QUALITY . 182 INLET ENTHALPY 1.095E+06 J/KG QUENCH FRONT: ELEVATION .885 M VELOCITY .0032 M/SEC QUALITY .319 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.841 .957 734.9 .484 .371

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W##5	M/W##5
.013	442.7	. 184	4.29E+04	
.051	452.1	. 189	4.29E+04	
.063	450.8	. 191	4.29E+04	
.089	455.9	. 194	4.30E+04	
.114	451.1	. 198	4.30E+04	
. 140	451.2	.201	4.29E+04	
. 165	451.9	.205	4.29E+04	
. 317	452.3	.226	4.30E+04	
. 394	454.6	.237	4.33E+04	
. 470	464.8	. 247	4.38E+04	
.546	467.1	.258	4.44E+04	
.622	459.6	.269	4.418+04	
.698	483.3	.231	4.68E+04	
.775	491.6	.293	5.61E+04	
.851	627.2	.310	7.85E+04	
.927	779.2	. 330	8.25E+04	
1.003	883.9	. 348	6.70E+04	
1.067	861.1	. 361	5.24E+04	
1.156	909.9	. 376	5.12E+04	
1.232	864.3	. 388	4.81E+04	
.1.257	870.8	. 392	5.12E+04	
1.321	896.6	,402	4.98E+04	
1.384	953.1	.413	5.02E+04	
1,460	978.5	.425	4.97E+04	
1.511	973.7	.433	4.68E+04	
1.562	927.2	. 441	4.86E+04	
1,613	953.2	.449	4.82£+04	
1.689	990.6	.461	4.79E+04	
1.765	1011.7	.472	4.75E+04	
1.816	1006.0	.480	4.44E+04	
1.867	956.0	.487	4.66E+04	
1.918	956.9	.495	4.63E+04	
1.994	984.1	.507	4.59E+04	
2.070	1002.1	.518	4.57E+04	

2.070

981.6

999.8

.507

.519

4.63E+04

4.62E+04

```
POINT SERIAL NO. 3102.120 (TIME= 378.50 SEC)
POINT SERIAL NO. 3102.110 (TIME= 355.50 SEC)
                                                                       LOOP PRESSURE(PE-3)
                                                                                                          7.99 MPA
LOOP PRESSURE(PE-3)
                                  7.96 MPA
                               525.0 K
                                                                       FCV TEMPERATURE (TE-FCV-1T)
                                                                                                        524.9 K
FCV TEMPERATURE (TE-FCV-1T)
                             1.095E+06 J/KG
                                                                       LHP INLET ENTHALPY
                                                                                                     1.094E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                                                       TEST SECTION:
     PRESSURE
                                   .81 MPA
                                                                            PRESSURE
                                                                                                           .81 MPA
                               444,22 K
                                                                                                      444.21 K
                                                                            SAT TEMP
     SAT TEMP
                              38.47 KG/SEC-M**2
                                                                            MASS FLUX
                                                                                                       38.55 KG/SEC-M**2
     MASS FLUX
                                                                            INLET QUALITY
                                                                                                          . 181
                                  .181
     INLET QUALITY
                                                                                                     1.094E+06 J/KG
                             1.095E+06 J/KG
                                                                            INLET ENTHALPY
     INCET ENTHALPY
                                                                       QUENCH FRONT:
QUENCH FRONT:
     ELEVATION
                                   .923 M
                                                                            ELEVALION
                                                                                                         1.004 M
     VELOCITY
                                  .0035 M/SEC
                                                                            VELOCITY
                                                                                                         .00. J M/SEC
                                  .325
                                                                            QUALITY
                                                                                                         .337
     OUAL LTY
NET LHP POWER TO FLUID
                                                                       NET LHP POWER TO FLUID
                                                                                                          0.0 W
                                  0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
           DZQF
                    TV
                             XE XA
                                                                       ELEVATION DZQF
                                                                                            TV
                                                                                                     XE XA
 (M)
            (M)
                     (K)
                                                                        (14)
                                                                                    (M)
                                                                                             (K)
 1.841
            .918
                   721.8 .484 .374
                                                                        1.841
                                                                                    .837
                                                                                          703.3 .485 .380
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TIMP
                                  HEAT FLUX
                                                HEAT LOSS
                                                                       ELEVATION
                                                                                    TEMP
                                                                                            XE
                                                                                                          HEAT FLUX
                                                                                                                         HEAT LOSS
                       XE
                                   W/M##2
                                                 W/M##2
                                                                                                           M/W##5
                                                                                                                         W/M##2
 (M)
              (K)
                                                                        (M)
                                                                                     (K)
                        . 183
  .013
             442.5
                                  4.29E+04
                                                                         .013
                                                                                     442.4
                                                                                                . 183
                                                                                                          4.30E+04
                                                                                                .188
             451.9
                         . 189
                                  4 29E+04
                                                                         .051
                                                                                     451.7
                                                                                                          4.31E+04
  .051
                        . 190
                                                                                                . 190
  .063
                                  4.29E+04
             450.7
                                                                         .063
                                                                                     450.5
                                                                                                          4.31E+04
                         . 194
  .089
             455.6
                                  4.30E+04
                                                                         .089
                                                                                     455.2
                                                                                                194
                                                                                                          4.32E+04
  . 114
                         . 197
                                                                                                .197
             450.9
                                  4.29E+04
                                                                         . 114
                                                                                     450.7
                                                                                                          4.31E+04
                                                                         .140
                                  4.29E+04
                                                                                     451.1
                                                                                                .201
  . 140
             451.1
                         .201
                                                                                                          4.31E+04
  . 165
                         .204
                                                                         . 165
                                                                                                .204
             451.8
                                  4.29E+04
                                                                                     451.7
                                                                                                          4.31E+04
  .317
             452.0
                         .226
                                  4.31E+04
                                                                         .317
                                                                                     451.4
                                                                                                .226
                                                                                                          4.31E+04
                         .236
                                  4.33E+04
                                                                                     453.0
                                                                                                .236
  . 394
             454.0
                                                                         . 394
                                                                                                          4.33E+04
                         .247
                                  4.38E+04
                                                                                                .247
             463.4
                                                                                     460.9
                                                                                                          4.37E+04
  .470
                                                                         .470
  .546
                        .258
                                                                                                .258
                                                                         .546
             465.1
                                  4.42E+04
                                                                                     462.0
                                                                                                          4.39E+04
                                                                                                .269
  .622
             457.9
                         .269
                                  4.39E+04
                                                                         .622
                                                                                     455.4
                                                                                                          4.37E+04
  .698
             478.3
                         .280
                                  4.60E+04
                                                                         .698
                                                                                     471.2
                                                                                                .280
                                                                                                          4.49E+04
  .775
             481.2
                         .292
                                                                        .775
                                  4.78E+04
                                                                                     471.1
                                                                                                .291
                                                                                                          4.54E+04
                         .307
                                                                                                .303
  .851
              558.5
                                   7.26E+04
                                                                         .851
                                                                                     485.4
                                                                                                          4.82E+04
                                  8.24E+04
                                                                                                .318
  .927
              741.6
                         . 326
                                                                         .927
                                                                                     567.8
                                                                                                          7.53E+04
                                   7.89E+04
 1.003
                         . 346
                                                                        1,003
                                                                                                .337
             830.3
                                                                                     675.6
                                                                                                          7.91E+04
                         .359
                                   5.45E+04
 1.067
             849.7
                                                                        1.067
                                                                                     788.1
                                                                                                . 353
                                                                                                          7.34E+04
                         .375
                                   5.23E+04
                                                                                                .371
                                                                                                          5.69E+04
 1,156
              900.5
                                                                        1.156
                                                                                     875.9
                                                                                                . 385
 1.232
             855.6
                         .387
                                   4.89E+04
                                                                        1.232
                                                                                     834.4
                                                                                                          5.10E+04
                         . 391
 1.257
                                  5.23E+04
                                                                        1.257
              861.3
                                                                                     538.2
                                                                                                . 389
                                                                                                          5.43E+04
 1.321
              889.5
                         .402
                                  5.03E+04
                                                                        1.321
                                                                                     872.8
                                                                                                .400
                                                                                                          5.15E+04
 1.384
              945.5
                         .412
                                   5.08E+04
                                                                        1.384
                                                                                     927.7
                                                                                                .411
                                                                                                          5.20E+04
 1.460
             971.4
                         .425
                                   5.03E+04
                                                                        1.460
                                                                                     954.9
                                                                                                .424
                                                                                                          5.14E+04
 1.511
             966.7
                         .433
                                   4.75E+04
                                                                        1.511
                                                                                     949.7
                                                                                                .432
                                                                                                          4.90E+04
 1,562
             921:3
                         . 441
                                  4.96E+04
                                                                        1.562
                                                                                     906.1
                                                                                                .440
                                                                                                          5.14E+04
                         .449
                                                                                                .448
 1.613
             948.1
                                   4.88E+04
                                                                        1.613
                                                                                     935.2
                                                                                                          5.00E+04
 1.689
             985.8
                         .461
                                   4.84E+04
                                                                        1.689
                                                                                     973.9
                                                                                                .461
                                                                                                          4.95E+04
             1007.3
                                  4.80E+04
 1.765
                         .473
                                                                        1.765
                                                                                     996.5
                                                                                                .473
                                                                                                          4.90E+04
 1.816
             1002.0
                         .481
                                  4.49E+04
                                                                        1.816
                                                                                     992.0
                                                                                                .481
                                                                                                          4.59E+04
                         .488
                                   4.72E+04
                                                                                     944.3
 1.867
             952.7
                                                                        1.867
                                                                                                .489
                                                                                                          4.81E+04
                                                                                                .497
 1.918
             953.8
                         .496
                                   4.70E+04
                                                                        1.918
                                                                                     946.0
                                                                                                          4.79E+04
```

1.994

2.070

974.9

993.6

.508

.520

4.74E+04

4.71E+04

PO	INT SERIAL	NO. 31	02.130	(TIME= 395.50 SE	EC)	POINT SERIAL	L NO. 3	1102,140	(TIME= 4	17.50 SEC	3)
1.0	OP PRESSUE	RE(PE-3)		7.95 MPA		LOOP PRESSUI	RE(PE-3)		7.	94 MPA	
FC	V TEMPERAT	TURE (TE-F	CV-1T1	524.9 K		FCV TEMPERA	TURELTE-	FCV-1T1	524	. 8 K	
1.14	P INLET EN	ATHAL PY		1.094E+06 J/KG		LHP INLET FO	NTHAL PY		1.094F+	06 J/KG	
TE	ST SECTION	u-		1.0742.00 0710		TEST SECTION	M -			00 07 110	
16	DRESSUE	26		81 MPA		PRESSU	S.F.			81 MPA	
	SAT TEN	AD		hhh 15 K		SAT TE	MP		hhh	10 K	
	MACC EL	IIV		50 07 WC/SE	C-W##2	MASS FI	HV		30	OR METER	-M##2
	MASS IL	UA		38.07 KG/SE	U-M-"2	MASS FI	NIAL LTV		30.	UB KU/SEL	,-M2
	INLET	JUALITY		1 0000000000000000000000000000000000000		INLET	TUALITY		1 0005	06 1440	
	INLEI	NIHALPY		1.094E+00 J/KG		INLET	MIHALPY		1.0946+	06 J/KG	
QU	FUCH FROM	1				QUENCH FROM	:				
	ELEVAII	ON		1.067 M		ELEVAI	IUN		1.1	20 M	
	AFFOCIA	IY .		.0039 M/SEC		VELOST	Y		.00	42 M/SEC	
	QUALITY			. 346		QUALITY	1		. 3	62	
NE	T LHP POWE	ER TO FLU	10	0.0 W		NET LHP POWE	R TO FL	UID	0	.0 W	
VA	POR TEMPER	RATURE ME	ASUREMENT	LOCATION INFORM	MATION	VAPOR TEMPER	RATURE M	EASUREMEN	LOCATIO	N INFORMA	TION
EL	EVATION	DZQF	10	XE XA		ELEVATION	DZQF	10	XE X	A	
	(M)	(M)	(K)		EC-M**2	(M)	(M)	(K)			
1	.841	.774	681.8	.488 .390		1.841	.686	648.7	.498 .4	08	
WA	LL TEMPERA	ATURE MEA	SUREMENT I	LOCATION INFORMA	ATION	WALL TEMPERA	TURE ME	ASUREMENT	LOCATION	INFORMAT	ION
EL	EVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOSS
	(M)	(K)		W/M**2	W/M**2	(M)	(K)		H	/M**5	W/M**2
	.013	442.4	. 183	4.30E+04		.013	442.6	. 183	3 4.	30E+04	
	.051	451.6	. 189	4.32E+04		.051	451.4	. 188	4.	33E+04	
	.063	450.4	. 190	4.31E+04		.063	450.4	. 190) 4.	32E+04	
	.089	454.8	194	4.32E+04		.089	454.4	. 191	4 4.	33E+04	
	114	450.7	197	4.30F+04		. 114	451.1	. 197	7 4	28E+04	
	140	451 0	201	4 32F+04		140	450.8	201	14	33F+04	
	165	451.6	205	4 32E+04		. 165	451.5	.204	4 4	33E+04	
	317	451.1	. 226	4 335+04		317	450 B	226	i ii	35E+04	
	394	452.5	237	4.33E+04		. 394	452.0	.237	7 11	35E+04	
	470	459 5	248	4 375+04		470	458.0	248	11	38F+04	
	546	460.3	258	4 385+04		546	458 4	250		39F+04	
	622	45h 1	269	h 36F+0h		622	452 7	276	11	36.E +Oli	
	608	1167 7	280	h h5E+0h		698	464 1	281	16	115+04	
	775	1166 7	201	h hor+oh		775	462 h	202	11	15E+0h	
	851	1176 B	303	h 62F+04		851	h69 3	303	li li	3E+04	
	927	502 2	315	5 335+04		927	484 8	314	4.	57F+0h	
1	003	560 3	331	7 37F+0h		1.003	467.7	326	4.	(2F+0)h	
	067	733 2	346	7 55E+0h		1.067	559 9	338	6	66E+04	
	156	828 5	367	7 025+04		1 156	760.9	360	0.	305 +04	
	212	812 0	387	5 50F+0h		1 232	774 6	302	7.1	10E+04	
	257	812 0	, 303	6 h15+0h		1 267	767.0	. 382	0)5E+04	
	221	012.0	. 308	6.412+03		1 221	934.7	. 388	9.0	005404	
1	321	011.0	.400	5.305+04		1 304	034.7	.404	2.0	225404	
	. 384	911.9	.411	5.386+04		1.384	008.9	.416	5.	EE+04	
	611	940.5	.425	5.296+04		1.400	919.8	.430	2.	4E+04	
	563	934.3	. 433	5.061404		1.511	911.9	. 439	2.	94E+04	
1	612	022.0	.442	5.455+04		1,502	864.9	.448	2.5	95.404	
1	.013	922.8	.451	5.211+04		1.613	903.0	.458	2.5	SE+04	
	. 689	962.8	.464	5.13E+04		1.689	945.1	.471	5.1	2E+04	
	. 165	986.3	.476	5.06E+04		1.765	970.4	. 485	5.3	3E+04	
1	AIA	982.4	. 484	4.75E+04		1.816	967.3	. 493	5.6	12E+04	
1	.010		1102	11 065 404		1.867	922.8	.502	5.2	OF+04	
1 1 1	.867	930.0	. 492	4.900,004		1.007	200000000000000000000000000000000000000	7.10.00.00			
1 1 1	.867 .918	936.0	.501	4.93E+04		1.918	925.0	.511	5.2	OE+04	
1 1 1 1	.867 .918 .994	936.0 937.9 968.0	.501	4.93E+04 4.88E+04	HEAT LOSS W/M##2	1.918	925.0 956.7	.511	5.2	0E+04 1E+04	

.543

. 555

5.33E+04

4.83E+04

5.26E+04

914.1

946.8

967.2

1.918

1,994

2,070

.532

.542

.551

1.89E+04

1.72E+04

1.71E+04

918.9

914.9

921.3

```
POINT SERIAL NO. 3102.150 (TIME= 430.50 SEC)
                                                                   POINT SERIAL NO. 1106.010 (TIME= 110.50 SEC)
LOOP PRESSURE(PE-3)
                                7.95 MPA
                                                                   LOOP PRESSURE(PE-3)
                                                                                                    4.99 MPA
                                                                                                477.1 K
                             524.3 K
FCV TEMPERATURE (TE-FCV-1T)
                                                                   FCV TEMPERATURE (TE-FCV-11)
LHP INLET ENTHALPY
                            1.091E+06 J/KG
                                                                   LHP INLET ENTHALPY
                                                                                                8.715E+05 J/KG
TEST SECTION:
                                                                   TEST SECTION:
    PRESSURE
                                 .81 MPA
                                                                        PRESSURE
                                                                                                     .80 MPA
                                                                                                443.70 K
    SAT TEMP
                              444.08 K
                                                                        SAT TEMP
                                                                                                  18.36 KG/SEC-M**2
.073
    MASS FLUX
                            38.15 KG/SEC-M**2
                                                                        MASS FLUX
                              .180
     INLET QUALITY
                                                                        INLET QUALITY
    INLET ENTHALPY
                          1.091E+06 J/KG
                                                                                              8.715E+05 J/KG
                                                                        INLET ENTHALPY
QUENCH FRONT:
                                                                   QUENCH FRONT:
    ELEVATION
                             1.219 M
                                                                        ELEVATION
                                                                                                     .093 M
                             .0064 M/SEC
    VELOCITY
                                                                                                    .0027 M/SEC
                                                                        VELOCITY
    QUALITY
                                                                                                   .096
                                . 362
                                                                        QUALITY
NET LHP POWER TO FLUID
                                0.0 W
                                                                   NET LHP POWER TO FLUID
                                                                                                      0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                  IV
                          XE XA
                                                                   ELEVATION DZQF
                                                                                      TV
                                                                                                XE XA
 (M)
            (M)
                    (K)
                                                                                (M)
                                                                     (M)
                                                                                         (K)
1.841 .623 621.7 .517 .434
                                                                               1.139
                                                                    1.232
                                                                                        759.4 .402 .301
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP
                    XE HEAT FLUX
                                            HEAT LOSS
                                                                                                     HEAT FLUX
                                                                                                                   HEAT LOSS
                                                                   ELEVATION
                                                                                TEMP XE
 (M)
                                  W/M##2
                                               W/M##2
                                                                                                                    W/M##2
              (K)
                                                                     (M)
                                                                                  (K)
                                                                                                      W/M##2
 .013
                       .181
             444.0
                                4.21E+04
                                                                      .013
                                                                                 466.0
                                                                                           .075
                                                                                                     2.291+04
                       .187
 .051
             451.2
                                4.32E+04
                                                                      .651
                                                                                 500.7
                                                                                            .083
                                                                                                     3.72E+04
                       . 188
  .063
             450.3
                                4.35E+04
                                                                                                     2.88E+04
                                                                      .063
                                                                                 474.3
                                                                                            .086
  .089
             454.3
                        . 192
                                 4.35E+04
                                                                      .089
                                                                                 575.6
                                                                                           .094
                                                                                                     6.56E+04
  . 114
             452.1
                       . 196
                                 4.31E+04
                                                                     .114
                                                                                           . 109
                                                                                 635.6
                                                                                                     1.09F+05
  . 140
                       .199
                                                                      . 140
                                                                                            .127
             450.7
                                 4.39E+04
                                                                                 751.5
                                                                                                     9.27E+04
  . 165
             451.4
                                 4.32E+04
                                                                                            . 138
                       .203
                                                                      . 165
                                                                                 751.0
                                                                                                     4.39E+04
  .317
             450.5
                       .225
                               4.481+04
                                                                      .317
                                                                                 823.4
                                                                                            . 185
                                                                                                     4.52E+04
                       .236
 . 394
             451.3
                                 4.36E+04
                                                                                                     4.45E+04
                                                                      . 394
                                                                                 852.8
                                                                                            .208
  .470
             457.3
                       .246
                                4.32E+04
                                                                      .470
                                                                                 871.3
                                                                                            .231
                                                                                                     4.44E+04
  546
             457.5
                       .257
                                4.36E+04
                                                                                            .254
                                                                      .546
                                                                                 886.8
                                                                                                     4.18E+04
 .622
             452.2
                       .268
                                4.30E+04
                                                                                            .275
                                                                      .622
                                                                                 904.1
                                                                                                    3.93E+04
                       .279
  .698
             462.8
                                4.40E+04
                                                                                            .294
                                                                      .698
                                                                                 924.4
                                                                                                    3.55E+04
                       .290
  .775
             460.6
                                 4.41E+04
                                                                                 948.7
                                                                                            .312
                                                                      .775
                                                                                                     3.51E+04
  .851
             466.0
                       .301
                                 4.51E+04
                                                                                 977.5
                                                                                            . 331
                                                                      .851
                                                                                                     3.60E+04
  .927
             479.4
                       .312
                                 4.53E+04
                                                                                            . 349
                                                                      .927
                                                                                 992.1
                                                                                                     3.36E+04
 1.003
             463.3
                       .323
                                 4.33E+04
                                                                                            . 365
                                                                     1.003
                                                                                 966.6
                                                                                                     3.175+04
                       . 333
 1.067
             534.7
                                 5.25E+04
                                                                     1.067
                                                                                 875.3
                                                                                            .377
                                                                                                     2.36E+04
                       .351
 1,156
             590.7
                                 7.73E+04
                                                                     1.156
                                                                                 922.3
                                                                                            .392
                                                                                                     2.47E+04
                       . 364
 1.232
             727.8
                                 2.09E+04
                                                                     1.232
                                                                                 896.0
                                                                                                     2.51E+04
                                                                                            .405
 1,257
             643.7
                       .376
                                 2.86E+05
                                                                     1.257
                                                                                 911.7
                                                                                            .409
                                                                                                     2.92E+04
 1.321
             809.9
                       ,414
                                 7.43E+04
                                                                                            .422
                                                                     1.321
                                                                                 935.2
                                                                                                      2.97E+04
 1.384
             867.7
                       .428
                                 6.59E+04
                                                                     1.384
                                                                                1007.9
                                                                                            . 436
                                                                                                     3.55E+04
 1.460
             902.3
                       . 444
                                 6.22E+04
                                                                                1013.6
                                                                     1.461
                                                                                            . 454
                                                                                                     3.29E+04
 1.511
             894.3
                       . 454
                                 5.825+04
                                                                                 997.0
                                                                     1.511
                                                                                            . 464
                                                                                                     2.88E+04
 1,562
             837.3
                       .465
                                 7.33E+04
                                                                     1.562
                                                                                 976.8
                                                                                            .475
                                                                                                     3.09E+04
 1.613
             886.1
                       .476
                                 5.83E+04
                                                                     1.613
                                                                                 984.8
                                                                                            .485
                                                                                                     2.80E+04
 1.689
             930.2
                       .490
                                 5.87E+04
                                                                     1.689
                                                                                 986.7
                                                                                            .499
                                                                                                      2.51E+04
                       .504
 1.765
             957.0
                                 5.00E+04
                                                                     1.705
                                                                                 980.2
                                                                                            .511
                                                                                                      2.29E+04
             954.3
 1.816
                       .512
                                 5.53E+04
                                                                     1.816
                                                                                 967.5
                                                                                            .519
                                                                                                      2.06E+04
             911.6
 1.867
                       .521
                                 5.43E+04
                                                                                 941.1
                                                                                            .526
                                                                     1.867
                                                                                                      2.07E+04
```

1.918

2.070

1,994

LOOP PRESSURE (PE-3) 4.99 MPA LOOP PRESSURE (PE-3) 4.79 MPA FCV TEMPERATURE (TE-FCV-1T) 477.2 K LHP INLET ENTHALPY 8.719E+05 J/KG TEST SECTION: PRESSURE 8.80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC-M**2 INLET QUALITY O'N INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION 093 M VELOCITY 0027 M/SEC QUALITY 095 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (M) (K) LOOP PRESSURE P. 4.99 MPA FCV TEMPERATURE (TE-FCV-1T) 477.2 K FCV TEMPERATURE (TE-FCV-1T) 477.2 K FCV TEMPERATURE MEASUREMENT LOCATION INFORMATION LOOP PRESSURE P. 3.09 M PRESSURE PRESSURE P. 3.09 MPA SAT TEMP 4.370 K SAT TEMP 4.370 K MASS FLUX 18.36 KG/SEC MASS FLUX 18.36 KG/	-M**2
FCV TEMPERATURE (TE-FCV-TT) 477.2 K LHP INLET ENTHALPY 8.719E+05 J/KG TEST SECTION: PRESSURE	-M**2
LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC-M**2 INLET QUALITY INLET ENTHALPY 8.719E+05 J/KG GUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VALOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	-M**2
TEST SECTION: PRESSURE .80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC-M**2 INLET QUALITY INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION VELOCITY QUALITY OP5 NET LHP POWER TO FLUID .0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA TEST SECTION: PRESSURE .80 MPA SAT TEMP 18.36 KG/SEC INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA SAT TEMP 443.70 K MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA ABOR MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET QUALITY .074 INLET QUALITY .074 INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: PRESSURE .80 MPA ABOR MASS FLUX 18.36 KG/SEC INLET QUALITY .074 INLET QUALITY .	-M**2
PRESSURE .80 MPA SAT TEMP .43.70 K MASS FLUX .18.36 KG/SEC-M**2 INLET QUALITY .074 INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION .093 M VELOCITY .0027 M/SEC QUALITY .095 NET LHP POWER TO FLUID .0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA PRESSURE .80 MPA 443.70 K SAT TEMP .80 MPA 645.70 K 645	-M**2
SAT TEMP MASS FLUX 18.36 KG/SEC-M**2 INLET QUALITY INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMA ELEVATION DATE SAT TEMP MASS FLUX 18.36 KG/SEC MASS FLUX 18.36 KG	-M**2
MASS FLUX INLET QUALITY INLET ENTHALPY INLET ENTHAL	-M**2
INLET QUALITY .0 M4 INLET ENTHALPY 8.719E+05 J/KG INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION .093 M ELEVATION .093 M VELOCITY .0027 M/SEC VELOCITY .0027 M/SEC QUALITY .095 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA INLET QUALITY .074 INLET QUALI	
INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LIP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION OZOF TY VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION OD27 M/SEC QUALITY 0.095 NET LIP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA INLET ENTHALPY 8.719E+05 J/KG QUENCH FRONT: ELEVATION OD27 M/SEC QUALITY 0.095 NET LIP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	
QUENCH FRONT: ELEVATION .093 M ELEVATION .093 M VELOCITY .0027 M/SEC VELOCITY .0027 M/SEC QUALITY .095 NET LHP POWER TO FLUID .0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMA ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA QUENCH FRONT: ELEVATION .093 M VELOCITY .0027 M/SEC QUALITY NET LHP POWER TO FLUID .0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	
ELEVATION .093 M VELOCITY .0027 M/SEC VELOCITY .0027 M/SEC QUALITY .095 NET LHP POWER TO FLUID .0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	
VELOCITY .0027 M/SEC .0027 M/S	
QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	
NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA	
ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA	TION
(4)	
(m) (m) (k)	
1.537 1.444 849.5 .461 .322 1.841 1.749 839.8 .513 .361 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M**2 W/M**2 (M) (K) W/M**2 W/M**2	
WALL TEMPERATURE MEASUREMENT LOCATION INCORMATION	ION
FIFVATION TEMP XF HEAT FILLY HEAT LOSS FIFVATION TEMP XF HEAT FILLY	HEAT LOSS
(M) (K) U/M**2 U/M**2 (M) (K) U/M**2	W/M##2
ELEVATION (K) (M) (K) (K) (K) (K) (K) (K)	11/11-2
.013 464.5 .075 2.26E+04 .013 464.5 .075 2.26E+04	
.051 496.0 .083 3.50E+04 .051 496.0 .083 3.50E+04	
.063 471.9 .086 2.74E+04 .063 471.9 .086 2.74E+04	
.089 559.6 .093 5.69E+04 .089 559.6 .093 5.69E+04	
.114 599.6 .106 9.14E+04 .114 599.6 .106 9.14E+04	
.140 701.3 .123 1.07E+05 .140 701.3 .123 1.07E+05	
.165 743.5 .136 4.74E+04 .165 743.5 .136 4.74E+04	
.317 816.4 .184 4.36E+04 .317 816.4 .184 4.36E+04	
.394 846.8 .206 4.35£+04 .394 846.8 .206 4.35£+04	
.470 864.9 .229 4.30E+04 .470 864.9 .229 4.30E+04	
.546 881.2 .250 4.02E+04 .546 881.2 .250 4.02E+04	
.622 898.8 .271 3.82E+04 .622 898.8 .271 3.82E+04	
.698 919.9 .290 3.55E+04 .698 919.9 .290 3.55E+04	
.775 944.0 .308 3.55€+04 .775 944.0 .308 3.55€+04	
.851 973.3 .327 3.59E+04 .851 973.3 .327 3.59E+04	
.927 988.5 .345 3.40E+04 .927 988.5 .345 3.40E+04	
1.003 963.3 .362 3.18E+04 1.003 963.3 .362 3.18E+04	
1.067 873.8 .374 2.38E+04 1.067 873.8 .374 2.38E+04	
1.156 920.5 .389 2.52E+04 1.156 920.5 .389 2.52E+04	
1.232 893.7 .402 2.56E+04 1.232 893.7 .402 2.56E+04	
1.257 908.6 .406 2.89E+(1 1.257 908.6 .406 2.89E+04	
1.321 932.1 .419 2.93E+04 1.321 932.1 .419 2.93E+04	
1.384 1003.3 .433 3.51E+04 1.384 1003.3 .433 3.51E+04	
1.461 1010.0 .450 3.22E+04 1.461 1010.0 .450 3.22E+04	
1.511 994.1 .461 2.81E+04 1.511 994.1 .461 2.81E+04	
1.562 973.7 .470 2.95E+04 1.562 973.7 .470 2.95E+04	
1.613 982.4 .480 2.70E+04 1.613 982.4 .480 2.70E+04	
1.689 985.2 .493 2.41E+04 1.689 985.2 .493 2.41E+04	
1.765 979.1 .505 2.25E+04 1.765 979.1 .505 2.25E+04	
1.816 966.7 .513 2.01E+04 1.816 966.7 .513 2.01E+04	
1.867 940.4 .520 2.08E+04 1.867 940.4 .520 2.08E+04	
1.918 918.7 .527 1.94E+04 1.918 918.7 .527 1.94E+04	
1.994 915.2 .536 1.77E+04 1.994 915.2 .536 1.77E+04	
2.070 921.6 .546 1.76E+04 2.070 921.6 .546 1.76E+04	

HEAT LOSS

W/M##2

```
POINT SERIAL NO. 1106.020 (TIME= 119.50 SEC)
                                                                          POINT SERIAL NO. 2106.021 (TIME= 119.50 SEC)
                                                                          (INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                   5.01 MPA
                                                                          LOOP PRESSURE ( PE-3)
                                                                                                              5.01 MPA
FCV TEMPERATURE (TE-FCV-11)
                                  477.3 K
                                                                          FCV TEMPERATURE (TE-FCV-1T)
                                                                                                            477.3 K
LHP INLET ENTHALPY
                               8.726E+05 J/KG
                                                                          LHP INLET ENTHALPY
                                                                                                         8.726E+05 J/KG
TEST SECTION:
                                                                          TEST SECTION:
                                     .80 MPA
     PRESSURE
                                                                               PRESSURE
                                                                                                               .80 MPA
     SAT TEMP
                                  443.70 K
                                                                               SAT TEMP
                                                                                                            443.70 K
     MASS FLUX
                                   18.24 KG/SEC-M**2
                                                                                                             18.24 KG/SEC-M**2
                                                                               MASS FLUX
     INLET QUALITY
                                   .074
                                                                               INLET QUALITY
                                                                                                              .074
     INLET ENTEALPY
                               8.726E+05 J/KG
                                                                               INLET ENTHALPY
                                                                                                         8.726E+05 J/KG
QUENCH FRONT:
                                                                         QUENCH FRONT:
     ELEVATION
                                    .120 M
                                                                              ELEVATION
                                                                                                               , 120 M
     VELOCITY
                                   .0033 M/SEC
                                                                               VELOCITY
                                                                                                             .0033 M/SEC
                                   .105
     QUALITY
                                                                              QUALITY
                                                                                                              . 105
NET LHP POWER TO FLUID
                                    0.0 W
                                                                         NET LHP POWER TO FLUID
                                                                                                               0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
             DZQF
ELEVATION
                     TV
                              XE
                                   XA
                                                                          (INFERRED VAPOR TEMP)
 (M)
             (M)
                      (K)
                                                                          ELEVATION DZQF
                                                                                                TV
                                                                                                         XE
                                                                                                               XA
                                                                           (M)
                                                                                       (M)
                                                                                                (K)
1.232
            1.111
                     689.7 .398 .315
                                                                          1.537
                                                                                      1.416
                                                                                               840.0
                                                                                                      .459 .323
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                         XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                                                         WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
 (M)
               (K)
                                    W/M##2
                                                   W/M##2
                                                                         ELEVATION
                                                                                       TEMP
                                                                                                 XE
                                                                                                              HEAT FLUX
                                                                           (M)
                                                                                                               W/M##2
                                                                                        (K)
  .013
              462.2
                         .076
                                   2.26E+04
                         .083
  .051
              489.1
                                    3.21E+04
                                                                           .013
                                                                                        462.2
                                                                                                   .076
                                                                                                              2.26E+04
  .063
                         .085
                                    2.56E+04
                                                                           .051
              468.7
                                                                                        489.1
                                                                                                    .083
                                                                                                              3.21E+04
  .089
              503.3
                         .092
                                    4.70E+04
                                                                            .063
                                                                                        468.7
                                                                                                    .085
                                                                                                              2.56E+04
 . 114
              602.0
                         .102
                                    7.16E+04
                                                                                                   .092
                                                                           .089
                                                                                        503.3
                                                                                                              4.70E+04
 . 140
              633.1
                         .116
                                   8.79E+04
                                                                           . 114
                                                                                        602.0
                                                                                                   . 102
                                                                                                              7.16E+04
  . 165
              685.7
                         .128
                                    5.58E+04
                                                                           . 140
                                                                                        633.1
                                                                                                   . 116
                                                                                                              8.79E+04
  .317
              804.6
                         .179
                                    4.25E+04
                                                                           .165
                                                                                        685.7
                                                                                                   . 128
                                                                                                              5.58E+04
  . 394
              835.5
                         .202
                                    4.29E+04
                                                                                                   .179
                                                                           .317
                                                                                        804.6
                                                                                                              4.25E+04
                         .224
  .470
              853.8
                                    4.31E+04
                                                                                                   .202
                                                                           . 394
                                                                                        835.5
                                                                                                              4.29E+04
 .546
                         .246
              871.4
                                    4.06E+04
                                                                           .470
                                                                                        853.8
                                                                                                   .224
                                                                                                              4.31E+04
                         .266
  ,622
              889.1
                                    3.99E+04
                                                                           .546
                                                                                        871.4
                                                                                                   . 246
                                                                                                              4.06E+04
  .698
              911.6
                         .287
                                    3.71E+04
                                                                           .622
                                                                                        889.1
                                                                                                   .266
                                                                                                              3.99E+04
 .775
              935.7
                         . 306
                                   3.69E+04
                                                                           .698
                                                                                        911.6
                                                                                                   .287
                                                                                                              3.71E+04
                         . 325
  .851
              965.3
                                   3.65E+04
                                                                           .775
                                                                                       935.7
                                                                                                   .306
                                                                                                              3.69E+04
              981.1
                         . 343
  .927
                                   3.50E+04
                                                                           .851
                                                                                       965.3
                                                                                                   .325
                                                                                                              3.65E+04
 1,003
                                                                           .927
              957.6
                          .361
                                   3.13E+04
                                                                                        981.1
                                                                                                   . 343
                                                                                                              3.50E+04
 1.067
              871.1
                                   2.40E+04
                          .373
                                                                          1,003
                                                                                        957.6
                                                                                                   .361
                                                                                                              3.13E+04
 1.156
              917.1
                          .388
                                   2.52E+04
                                                                          1.067
                                                                                       871.1
                                                                                                   .373
                                                                                                             2,40E+04
 1.232
              889.5
                          .401
                                    2.57E+04
                                                                                       917.1
                                                                          1.156
                                                                                                   .388
                                                                                                              2.52E+04
 1.257
              904.1
                         . 406
                                   2.80E+04
                                                                          1.232
                                                                                        889.5
                                                                                                   .401
                                                                                                              2.57E+04
              927.3
 1.321
                         .418
                                    2.86E+04
                                                                          1.257
                                                                                        904.1
                                                                                                    ,406
                                                                                                              2.80E+04
                         .431
 1.384
              996.0
                                   3.44E+04
                                                                          1.321
                                                                                        927.3
                                                                                                   .418
                                                                                                              2.86E+04
 1,461
             1003.8
                          .449
                                    3.20E+04
                                                                          1.384
                                                                                       996.0
                                                                                                   .431
                                                                                                              3.44E+04
 1,511
              989.2
                         .459
                                    2.81E+04
                                                                                       1003.8
                                                                          1.461
                                                                                                    ,449
                                                                                                              3.20E+04
 1.562
              969.2
                          .469
                                    2.85E+04
                                                                          1.511
                                                                                       989.2
                                                                                                    .459
                                                                                                             2.81E+04
 1.613
              978.8
                          .479
                                    2.66E+04
                                                                          1.562
                                                                                       969.2
                                                                                                   .469
                                                                                                              2.85E+04
 1.689
              982.9
                          .492
                                    2.41E+04
                                                                                       978.8
                                                                          1.613
                                                                                                   .479
                                                                                                              2.66E+04
 1.765
              977.5
                          .504
                                   2.24E+04
                                                                          1.689
                                                                                       982.9
                                                                                                   .492
                                                                                                              2.41E+04
 1.816
              965.5
                         .511
                                   2.02E+04
                                                                          1.765
                                                                                       977.5
                                                                                                              2.24E+04
                                                                                                   .504
 1.867
              939.4
                         .518
                                   2.09E+04
                                                                          1.816
                                                                                       965.5
                                                                                                   .511
                                                                                                              2.02E+04
 1.918
              918.3
                         .525
                                   1,94E+04
                                                                          1.867
                                                                                       939.4
                                                                                                   .518
                                                                                                              2.09E+04
 1.994
              915.6
                         .535
                                   1.78E+04
                                                                          1.918
                                                                                       918.3
                                                                                                   .525
                                                                                                              1.94E+04
 2.070
              921.9
                         . 544
                                    1.79E+04
                                                                          1.994
                                                                                       915.6
                                                                                                   .535
                                                                                                             1.78E+04
```

2.070

921.9

. 544

1.79E+04

1.994

2.070

918.3

915.6

921.9

.525

.535

. 544

1.94E+04

1.78E+04

1.79E+04

INEL POST-CHE EXPERIMENT NO. 106

```
POINT SERIAL NO. 3106.020 (TIME= 119.50 SEC)
                                  5.01 MPA
LOOP PRESSURE(PE-3)
                              477.3 K
FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY
                             8.726E+05 J/KG
TEST SECTION:
     SSURE
                                   .80 MPA
    SAT TEMP
                                443.70 K
                               18.24 KG/SEC-M**2
    MASS FLUX
     INLET QUALITY
     INLET ENTHALPY
                            8.726E+05 J/KG
QUENCH FRONT:
    ELEVATION
                                   ,120 M
     VELOCITY
                                 .0033 M/SEC
    QUALITY
                                  . 105
NET LHP POWER TO FLUID
                                  0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
           DZQF
                    TV
                            XE XA
 (M)
            (M)
1.841
            1.721
                    826.7 .511 .364
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
             TEMP
                                 HEAT FLUX
                                                 HEAT LOSS
ELEVATION
                      XE
                                   M/W##5
                                                  W/M##2
 (M)
              (K)
 .013
             462.2
                        .076
                                  2.26E+04
  .051
             489.1
                        .083
                                  3.21E+04
                        .085
  .063
              468.7
                                  2.56E+04
              503.3
  .089
                        .092
                                  4.70E+04
 . 114
              602.0
                        . 102
                                  7.16E+04
 . 140
                        .116
             633.1
                                  8.79E+04
  . 165
              685.7
                        . 128
                                  5.58E+04
  .317
             804.6
                        .179
                                  4.25E+04
  .394
             835.5
                        .202
                                  4.29E+04
                        .224
  .470
             853.8
                                  4.31E+04
                                  4.06E+04
  .546
              871.4
                        .246
                                  3.99E+04
  .622
             889.1
                        .266
             911.6
                        .287
                                  3.71E+04
  .698
                        .306
  .775
                                   3.69E+04
              935.7
                        .325
  .851
              965.3
                                   3.65E+04
                        . 343
                                   3.50E+04
  .927
              981.1
 1.003
              957.6
                        .361
                                   3.13E+04
                        .373
                                   2.40F+04
 1.067
              871.1
 1.156
             917.1
                         . 388
                                   2.52E+04
                         .401
                                   2.57E+04
 1.232
              889.5
 1.257
              904.1
                         ,406
                                   2.80E+04
 1.321
              927.3
                        .418
                                   2.86E+04
 1.384
             996.0
                        .431
                                   3.44E+04
                         .449
 1.461
                                   3.20E+04
             106 3.8
             989.2
                         .459
                                   2.81E+04
 1.511
              969.2
                                   2.85E+04
 1.562
                         .469
 1.613
              978.8
                         .479
                                   2.66E+04
              982.9
                                   2.4;E+04
 1.689
                         .492
 1.765
              977.5
                         .504
                                   2.24E+04
                        .511
 1.816
              965.5
                                   2.02E+04
                                   2.09E+04
 1.867
              939.4
                        .518
```

INEL POST-CHE EXPERIMENT NO. 106 POINT SERIAL NO. 2106.031 (TIME= 132.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 5.03 MPA 477.4 K FCV TEMPERATURE (TE-FCV-11) LHP INLET ENTHALPY 8.731E+05 J/KG TEST SECTION: .80 MPA PRESSURE SAT' TEMP 443.68 K MASS FLUX 18.24 KG/SEC-M**2 INLET QUALITY .074 INLET ENTHALPY 8.731E+05 J/KG QUENCH FRONT: ELEVATION .165 M VELOCITY .0037 M/SEC QUALITY .120 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) IV ELEVATION DZQF XE (M) (K) (M) 1.537 1.372 830 .451 320 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP HEAT FLUX HEAT LOSS XE (M) (K) W/M##2 W/M##2 .013 458.9 .076 2.19E+04 480.1 2.84E+04 .051 .082 .063 464.4 .085 2.33E+04 .089 488.4 .090 3.57E+04 . 114 521.7 .098 5.70E+04 . 140 570.9 .109 6.89E+04 . 165 624.0 .120 6.18E+04 .317 .173 786.1 4.06E+04 . 194 . 394 817.2 4.03E+04 .470 835.7 .215 4.01E+04 . 546 853.9 .236 3.96E+04 870.8 .622 .257 4.05E+04 .698 895.5 .277 3.80E+04 .297 .775 919.8 3.80E+04 .317 .851 951.0 3.63E+04 .927 967.7 .335 3.50E+04 1.003 947.5 . 352 3.16E+04 1.067 866.4 . 365 2.49E+04 1.156 911.6 .380 2.54E+04 1.86E+02 1.232 882.5 . 393 2.61E+04 .398 1.257 897.0 2.81E+04 1.321 919.9 .410 2.85E+04 1.384 984.5 .424 3.39E+04 1.461 093.9 . 441 3.20E+64 981.0 1.511 .451 2.83E+04 1.562 962.1 .461 2.84E+04 1.613 972.9 .471 2.68E+04 1.689 978.7 , 484 2.45E+04 974.8 1.765 .496 2.28E+04 1.816 963.7 .504 2.06E+04 1.867 938.0 .511 2.10E+04

1.918

1.994

2.070

918.1

916.5

922.6

.518

.528

.538

1.96E+04

1.82E+04

1.845+04

922.6

.538

1.84E+04

```
POINT SERIAL NO. 3106.031 (TIME= 132.50 SEC)
                                                                   POINT SERIAL NO. 2106.040 (TIME= 171.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                                5.03 MPA
                                                                                                   4.99 MPA
                                                                   LOOP PRESSURE(PE-3)
                                                                                              4.99 MF/
476.9 K
FCV TEMPERATURE(TE-FCV-TT) 477.4 K
                                                                   FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY 8.731E+05 J/KG
                                                                   LHP INLET ENTHALPY
                                                                                              8.708E+05 J/KG
TEST SECTION:
                                                                   TEST SECTION:
    PRESSURE
                                                                                                     .80 MPA
                                 .80 MPA
                                                                        PRESSURE
                            443.68 K
                                                                                                  78 K
KG/SEC-M**2
    SAT TEMP
                                                                       SAT TEMP
                             18.24 KG/SEC-M**2
    MASS FLUX
                                                                       MASS FLUX
    INLET QUALITY
                                                                       INLET QUALITY
                                                                                                    .073
                                                                       INLET ENTHALPY
                            8.731E+05 J/KG
    INLET ENTHALPY
                                                                                               8.708E+05 J/KG
QUENCH FRONT:
                                                                   QUENCH FRONT:
    ELEVATION
                                 .165 M
                                                                       ELEVATION
                                                                                                    .312 M
    VELOCITY
                                .0037 M/SEC
                                                                       VELOCITY
                                                                                                   .0038 M/SEC
                               .120
                                                                                                   . 134
    QUALITY
                                                                       QUALITY
NET LHP POWER TO FLUID
                                 0.0 W
                                                                   NET LHP POWER TO FLUID
                                                                                                    0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                   ELEVATION DZQF TV
                                                                                              XE XA
ELEVATION DZQF
                 TV
                                XA
                                                                    (M)
                                                                               (M)
                                                                                       (K)
 (M)
           (M)
                   (K)
                                                                    1.537
                                                                              1.225 736.9 .398 .304
1.841
           1.676
                 820.0
                          .508 .363
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                              TEMP XE HEAT FLUX
                                                                                                               HEAT LOSS
                                                                   ELEVATION
                   XE HEAT FLUX HEAT LOSS
ELEVATION
           TEMP
                                                                                                     W/M##2
                                                                                                                  W/M*#2
                                                                    (M)
                                                                                (K)
 (M)
             (K)
                                 W/M##2
                                               W/M##2
                                                                                                    1.95E+04
                                                                     .013
                                                                                448.2
                                                                                          .075
 .013
             458.9
                                2.19E+04
                                                                                                    2.02E+0h
                       .076
                                                                     .051
                                                                                457.3
                                                                                          .080
                       .082
 .051
             480.1
                                2.84E+04
                                                                                                    1.94E+04
                                                                     .063
                                                                                453.7
                                                                                          .081
  .063
             464.4
                       .085
                                2.33E+04
                                                                     .089
                                                                                463.6
                                                                                          .085
                                                                                                    2.02E+04
  .089
             488.4
                       .090
                                3.57E+04
                                                                                                 2.03E+04
                                                                     .114
                                                                                458.5
                                                                                          .088
 . 114
                       .098
                                5.70E+04
             521.7
                                                                     . 140
                                                                                452.9
                                                                                          .092
                                                                                                    1.97E+04
 .140
                       . 109
                                                                                                   2.29E+04
             570.9
                               6.89E+04
                                                                    . 165
                                                                                456.5
                                                                                          .096
                       .120
  . 165
                                                                                          . 135
             624.0
                               6.18E+04
                                                                                                    5.27E+04
                                                                     .317
                                                                                633.4
                       .173
                                                                                          . 159
  .317
             786.1
                                4.06E+04
                                                                     . 394
                                                                                                   3.98E+04
                                                                                738.7
                       . 194
                                                                                          .178
  . 394
                                4.03E+04
                                                                     . 470
             817.2
                                                                                760.1
                                                                                                    3.24E+04
                       .215
                                                                                          . 195
  .470
             835.7
                                4.01E+04
                                                                     .546
                                                                                781.1
                                                                                                    3.11E+04
                                                                                          .211
  .546
                       .236
                                3.96E+04
             853.9
                                                                     .622
                                                                                794.5
                                                                                                    3.04E+04
  .622
             870.8
                       .257
                               4.05E+04
                                                                                821.0
                                                                                          .221
                                                                                                    3.22E+04
                                                                     . 698
  .698
             895.5
                      . .277
                               3.80E+04
                                                                                          .244
                                                                                                    3.29E+04
                                                                     .775
                                                                                844.6
                       .297
  .775
             919.8
                               3.80E+04
                                                                                          .261
                                                                                                  3.43E+04
                                                                     .851
                                                                                879.1
                                                                                          .279
                       .317
  .851
             951.0
                               3.63E+04
                                                                     .927
                                                                                898.6
                                                                                                 3.41E+04
  .927
             967.7
                              3.50E+04
                       . 335
                                                                    1.003
                                                                                889.4
                                                                                          .296
                                                                                                 3.18E+04
                       .352
                               3.16E+04
 1,003
             947.5
                                                                   1.067
                                                                                                2.63E+04
                                                                                833.9
                                                                                          .309
                                                                                                                 5.82E+00
 1.067
             866.4
                                2.49E+04
                                                                                          .325
                       . 365
                                                                    1,156
                                                                                                 2.67E+04
                                                                                877.4
                                                                                                  3.21E+04
                                2.54E+04
                                                                                          . 340
 1.156
             911.6
                       .380
                                              1.86E+02
                                                                    1.232
                                                                                839.3
 1.232
                       .393
                                2.61E+04
                                                                                          . 346
             882.5
                                                                    1.257
                                                                                856.1
                                                                                                    2.89E+64
                                2.81E+04
 1.257
             897.0
                       .398
                                                                    1.321
                                                                                881.7
                                                                                           . 358
                                                                                                    2.69E+04
 1.321
             919.9
                       .410
                                2.85E+04
                                                                    1.384
                                                                                                    2.86E+04
                                                                                932.6
                                                                                           .370
 1.384
             984.5
                       .424
                                3.39E+04
                                                                                          . 385
                                                                    1.461
                                                                                948.2
                                                                                                    2.75E+04
 1.461
             993.9
                       .441
                                3.20E+04
                                                                                          . 394
                                                                    1.511
                                                                                942.2
                                                                                                    2.54E+04
 1.511
             981.0
                       .451
                                2.83E+04
                                                                    1.562
                                                                                927.6
                                                                                          .403
                                                                                                    2.57E+04
 1.562
             962.1
                       .461
                                2.84E+04
                                                                                          .411
                                                                    1.613
                                                                                943.5
                                                                                                    2.47E+04
                                                                                955.3
                                                                                          .424
 1.613
             972.9
                       .471
                                2.68E+04
                                                                   1,689
                                                                                                    2.38E+04
 1.689
             978.7
                       484
                                2.45E+04
                                                                    1.765
                                                                                959.1
                                                                                          . 436
                                                                                                    2.23E+04
 1.765
             974.8
                       .496
                                2.28E+04
                                                                    1.816
                                                                                951.1
                                                                                          . 4444
                                                                                                    2.08E+04
 1.816
             963.7
                       .504
                                2.06E+04
                                                                    1.867
                                                                                929.3
                                                                                          .451
                                                                                                    2.13E+04
 1.867
             938.0
                       .511
                                2.10E+04
                                                                                914.6
                                                                    1.918
                                                                                          .458
                                                                                                    2.03E+04
 1.918
            918.1
                               1.96E+04
                                                                                          .469
                       .518
                                                                    1.994
                                                                                918.3
                                                                                                    1.93E+04
            916.5
 1.994
                       .528
                                1.82E+04
                                                                    2.070
                                                                                921.8
                                                                                          .480
                                                                                                    2.65E+04
```

1.994

2.070

914.6

918.3

921.8

.458

469

. +80

2.03E+04

1.93E+04

2.65E+04

```
POINT SERIAL NO. 3106.041 (TIME= 171.50 SEC)
                                                                          POINT SERIAL NO. 2106.050 (TIME= 192.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                    4.99 MPA
                                                                          LOOP PRESSURE(PE-3)
                                                                                                               5.01 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                   476.9 K
                                                                          FCV TEMPERATURE (TE-FCV-11)
                                                                                                              476.6 K
LHP INLET ENTHALPY
                               8.708E+05 J/KG
                                                                          LHP INLET ENTHALPY
                                                                                                          8.692E+05 J/KG
TEST SECTION:
                                                                          TEST SECTION:
     PRESSURE
                                     .80 MPA
                                                                               PRESSURE
                                                                                                                .80 MPA
     SAT TEMP
                                  443.78 K
                                                                               SAT TEMP
                                                                                                             443.78 K
     MASS FLUX
                                   18.20 KG/SEC-M**2
                                                                               MASS FLUX
                                                                                                              18.20 KG/SEC-M**2
     INLET QUALITY
                                    .073
                                                                               INLET QUALITY
                                                                                                               .072
                               8.708E+05 J/KG
     INLET ENTHALPY
                                                                               INLET ENTHALPY
                                                                                                          8.692E+05 J/1
QUENCH FRONT:
                                                                          QUENCH FRONT:
     ELEVATION
                                     .312 M
                                                                               ELEVATION
                                                                                                                .390 M
     VELOCITY
                                    .0038 M/SEC
                                                                               VELOCITY
                                                                                                              .0036 M/SEC
     QUALITY
                                    . 134
                                                                               QUALITY
                                                                                                               . 142
NET LHP POWER TO FLUID
                                     0.0 W
                                                                          NET LHP POWER TO FLUID
                                                                                                                0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                          ELEVATION
                                                                                       DZQF
                                                                                                 IV
                                                                                                          XE XA
ELEVATION
                      TV
             DZQF
                               XE
                                     XA
                                                                            (M)
                                                                                        (M)
                                                                                                 (K)
             (M)
 (M)
                       (K)
                                                                           1.537
                                                                                       1.146
                                                                                                716.2
                                                                                                         .407 .316
 1.841
            1.529
                      790.0
                              .447 .327
                                                                          WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          ELEVATION
                                                                                         TEMP
                                                                                                    XE
                                                                                                               HEAT FLUX
                                                                                                                              HEAT LOSS
                                    HEAT FLUX
ELFVATION
             TEMP
                          XE
                                                   HEAT LOSS
                                                                            (M)
                                                                                          (K)
                                                                                                                W/M##2
                                                                                                                               W/M##2
 (M)
               (K)
                                     W/M##2
                                                    W/M##2
                                                                            .013
                                                                                         446.3
                                                                                                     .074
                                                                                                               1.91E+04
 .013
              448.2
                          .075
                                    1.95E+04
                                                                            .051
                                                                                         454.2
                                                                                                     .079
                                                                                                               1.95E+04
                          .080
  .051
              457.3
                                    2.02E+04
                                                                            .063
                                                                                         451.7
                                                                                                     .080
                                                                                                               1.92E+04
  .063
              453.7
                          .081
                                    1.94E+04
                                                                            .089
                                                                                         460.1
                                                                                                     .084
                                                                                                               1.97E+04
  .089
              463.6
                          .085
                                    2.02E+04
                                                                            . 114
                                                                                         455.0
                                                                                                     .087
                                                                                                               1.97E+04
  . 114
              458.5
                          .088
                                    2.03E+04
                                                                            . 140
                                                                                         450.9
                                                                                                     .091
                                                                                                               1.91E+04
  . 140
              452.9
                          .092
                                                                            .165
                                                                                                    .094
                                    1.97E+04
                                                                                         453.1
                                                                                                               1.94E+04
 . 165
              456.5
                          J96
                                    2.29E+04
                                                                            .317
                                                                                         477.4
                                                                                                    . 122
                                                                                                               3.37E+04
  .317
                          . 135
              633.4
                                    5.27E+04
                                                                            . 394
                                                                                         619.2
                                                                                                     . 143
                                                                                                               4.78E+04
 . 394
              738.7
                          . 159
                                    3.98E+04
                                                                            .470
                                                                                         731.3
                                                                                                    . 165
                                                                                                               3.58E+04
  .470
              760 :
                          .178
                                    3.24E+04
                                                                                         756.5
                                                                            .546
                                                                                                     . 182
                                                                                                               2.96E+04
  .546
              781.1
                          . 195
                                    3.11E+04
                                                                                         772.0
                                                                                                    . 197
                                                                            .622
                                                                                                               2.90F+04
              794.5
                          .211
  .622
                                    3.04E+04
                                                                            .698
                                                                                         795.4
                                                                                                    .212
                                                                                                               2.92E+04
                          .227
 .698
              821.0
                                    3.22E+04
                                                                            .775
                                                                                         817.1
                                                                                                     .228
                                                                                                               3.08E+04
 .775
              844.6
                          . 244
                                    3.29E+04
                                                                            .851
                                                                                         848.8
                                                                                                    .244
                                                                                                               3.17E+04
 .851
              879.1
                          .261
                                    3.43E+04
                                                                            .927
                                                                                         869.2
                                                                                                     .261
                                                                                                               3.15E+04
  .927
              898.6
                          .279
                                    3.41E+04
                                                                           1,003
                                                                                                               2.83E+04
                                                                                         866.5
                                                                                                     .276
 1.003
              889.4
                          .296
                                    3.18E+04
                                                                           1.067
                                                                                         820.4
                                                                                                     .288
                                                                                                               2.42E+04
                         .309
 1.067
              833.9
                                    2.63E+04
                                                   5.82E+00
                                                                           1.156
                                                                                         862.3
                                                                                                     .303
                                                                                                               2.55E+04
 1.156
              877.4
                          . 325
                                    2.67E+04
                                                                           1,232
                                                                                         769.1
                                                                                                     . 329
                                                                                                               7.49E+04
 1.232
              839.3
                          . 340
                                    3.21E+04
                                                                           1,257
                                                                                         802.2
                                                                                                    . 343
                                                                                                               9.04E+04
 1,257
              856.1
                          . 346
                                    2.89E+04
                                                                           1.321
                                                                                         865.5
                                                                                                    . 369
                                                                                                               2.66E+04
 1.321
              881.7
                          .358
                                    2.69E+04
                                                                                                    .380
                                                                           1.384
                                                                                         914.2
                                                                                                               2.67E+04
                          .370
 1.384
              932.6
                                    2.86E+04
                                                                           1.460
                                                                                         931.7
                                                                                                    . 394
                                                                                                               2.63E+04
 1,460
              948.2
                          . 385
                                    2.75E+04
                                                                           1.511
                                                                                         927.3
                                                                                                     .403
                                                                                                               2.43E+04
 1.511
              942.2
                          .394
                                                                                         914.7
                                    2.54E+04
                                                                           1.562
                                                                                                     .411
                                                                                                               2.46E+04
 1.562
              927.6
                          .403
                                    2.57E+04
                                                                           1.613
                                                                                         932.9
                                                                                                     .420
                                                                                                               2.36E+04
1.613
              943.5
                         .411
                                    2.47E+04
                                                                           1.689
                                                                                         946.0
                                                                                                     .432
                                                                                                               2.25E+04
1.689
              955.3
                          .424
                                    2.38E+04
                                                                           1.765
                                                                                         952.5
                                                                                                     . 443
                                                                                                               2.18E+04
1.765
              959.1
                          .436
                                    2.23E+04
                                                                           1.816
                                                                                         945.5
                                                                                                     . 451
                                                                                                               2.02E+04
 1.816
              951.1
                          .444
                                    2.08E+04
                                                                           1.867
                                                                                         924.2
                                                                                                     .458
                                                                                                               2.17E+04
1.867
              929.3
                          .451
                                    2.13E+04
                                                                           1.918
                                                                                         911.8
                                                                                                    .465
                                                                                                               2.08E+04
```

1.994

2.070

917.4

855.7

.476

.507

1.99E+04

9.77E+04

```
POINT SERIAL NO. 3106.050 (TIME= 195.50 SEC)
                                                                        POINT SERIAL NO. 2106.061 (TIME= 202.50 SEC)
                                                                         (INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                   5.02 MPA
                                                                        LOOP PRESSURE (PE-3)
                                                                                                            4.99 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                  476.5 K
                                                                        FCV TEMPERATURE(TE-FCV-1T)
                                                                                                           476.5 K
LHP INLET ENTHALPY
                              8.691E+05 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                       8.689E+05 J/KG
TEST SECTION:
                                                                        TEST SECTION:
                                    .80 MPA
     PRESSURE
                                                                              PRESSURE
                                                                                                              .80 MPA
     SAT TEMP
                                 443.74 K
                                                                              SAT TEMP
                                                                                                          443.69 K
    MASS FLUX
                                  18.19 KG/SEC-M**2
                                                                              MASS FLUX
                                                                                                           18.17 KG/SEC-M**2
     INLET QUALITY
                                   .072
                                                                              INLET QUALITY
                                                                                                             .072
     INLET ENTHALPY
                              8.691E+05 J/KG
                                                                              INLET ENTHALPY
                                                                                                        8.689E+05 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
    ELEVATION
                                    4:11 M
                                                                              ELEVATION
                                                                                                             .426 M
    VELOCITY
                                   .0036 M/SEC
                                                                              VELOCITY
                                                                                                            .0036 M/SEC
    QUALITY
                                                                                                            . 147
                                   .143
                                                                              QUALITY
NET LHP POWER TO FLUID
                                    0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
           DZQF
                    TV
                              XE
                                  XA
                                                                        (INFERRED VAPOR TEMP)
 (M)
             (M)
                      (K)
                                                                        ELEVATION
                                                                                     DZQF
                                                                                               TV
                                                                                                       XE
                                                                                                             XA
                                                                                      (M)
                                                                          (M)
                                                                                               (K)
1.841
            1,440
                   773.5 .454 .336
                                                                         1.537
                                                                                     1.110
                                                                                            720.0
                                                                                                     .411 .318
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                        XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
  (M)
              (K)
                                    W/M##2
                                                   W/M**2
                                                                        ELEVATION
                                                                                       TEMP
                                                                                                   XE
                                                                                                            HEAT FLUX
                                                                                                                           HEAT LOSS
                                                                          (M)
                                                                                       (K)
                                                                                                             W/M##2
                                                                                                                            W/M##2
  .013
              446.2
                         .074
                                   1.90E+04
  .051
              454.0
                         .079
                                   1.94E+04
                                                                                                  .074
                                                                           .013
                                                                                       445.9
                                                                                                             1.90E+04
  .063
              451.6
                                   1.92E+04
                         .080
                                                                          .051
                                                                                       453.6
                                                                                                  .079
                                                                                                             1.93E+04
  089
              459.9
                         .084
                                   1.97E+04
                                                                           .063
                                                                                       451.3
                                                                                                  .080
                                                                                                             1.91E+04
  .114
              454.7
                                   1.97E+04
                                                                          .089
                         .087
                                                                                       459.4
                                                                                                  .084
                                                                                                             1.96E+04
                                                                          . 114
  . 140
              450.7
                         .091
                                   1.91E+04
                                                                                       454.2
                                                                                                  .087
                                                                                                             1.96E+04
  . 165
              452.9
                         .094
                                   1.94E+04
                                                                          .140
                                                                                       450.4
                                                                                                  .090
                                                                                                             1.90E+04
 .317
                         .120
              468.0
                                   3.14E+04
                                                                          . 165
                                                                                       452.5
                                                                                                  .094
                                                                                                            1.93E+04
                         .141
  394
              559 4
                                  4.90E+04
                                                                                                  .116
                                                                          .317
                                                                                       463.1
                                                                                                            2.43E+04
                         . 164
  .470
              729.3
                                   3.61E+04
                                                                          . 394
                                                                                       580.6
                                                                                                  .137
                                                                                                            5.30E+04
  .546
              754.7
                         . 181
                                   2.92E+04
                                                                           .470
                                                                                       724.4
                                                                                                  . 160
                                                                                                            3.78E+04
  .622
              770.3
                                   2.87E+04
                         . 196
                                                                          .546
                                                                                       750.6
                                                                                                  .178
                                                                                                            2.94E+04
  .698
              793.6
                         .211
                                   2.91E+04
                                                                                                  . 193
                                                                          .622
                                                                                       766.5
                                                                                                            2.89E+04
  .775
              815.2
                         .226
                                   3.04E+04
                                                                          .698
                                                                                       789.5
                                                                                                  .208
                                                                                                            2.93E+04
  .851
              846.5
                         .242
                                   3.09E+04
                                                                          .775
                                                                                       810.9
                                                                                                  .224
                                                                                                            3.07E+04
  .927
                         .258
                                   3.10E+04
              866.9
                                                                          .851
                                                                                       841.9
                                                                                                  .240
                                                                                                            2.97E+04
 1.003
              864.9
                                  2.78E+04
                         .274
                                                                          .927
                                                                                       862.4
                                                                                                  .255
                                                                                                            2.99E+04
 1.067
              819.5
                         .285
                                   2.40E+04
                                                                          1,003
                                                                                                  .270
                                                                                       861.9
                                                                                                            2.73E+04
 1.156
                         . 300
                                   2.52E+04
                                                                                                  .281
              861.3
                                                                          1.067
                                                                                       817.7
                                                                                                            2.32E+04
                         .327
 1,232
              763.0
                                   7.90E+04
                                                                                                  .296
                                                                          1.156
                                                                                       859.1
                                                                                                            2.471+64
                                                                                                                           2.26E+02
 1.257
              797.7
                         . 342
                                   9.58E+04
                                                                          1,232
                                                                                       677.9
                                                                                                  . 326
                                                                                                            9.15E+04
                         . "69
 1.321
              864.3
                                   2.63E+04
                                                                          1,257
                                                                                       737.2
                                                                                                  . 344
                                                                                                            1.13E+05
 1.384
              912.9
                         .380
                                   2.63E+04
                                                                         1.321
                                                                                       862.2
                                                                                                  . 374
                                                                                                            2.54E+04
 1.460
              930.5
                         . 394
                                   2.58E+04
                                                                         1.384
                                                                                       910.5
                                                                                                  . 385
                                                                                                            2.50E+04
 1.511
              926.1
                         . 403
                                   2.40E+64
                                                                         1.460
                                                                                       928.2
                                                                                                  .398
                                                                                                            2 48E+04
 1.562
              913.7
                         .411
                                   2.43E+04
                                                                         1.511
                                                                                       924.1
                                                                                                  .407
                                                                                                            2.30E+04
 1.613
              932.1
                         .419
                                   2.35E+04
                                                                         1,562
                                                                                       912.2
                                                                                                  .415
                                                                                                            2.35E+04
 1.689
              945.3
                         .431
                                   2.25E+04
                                                                         1.613
                                                                                       930.8
                                                                                                  .423
                                                                                                            2.27E+04
 1.765
              951.9
                         .443
                                   2.17E+04
                                                                         1.689
                                                                                       944.2
                                                                                                  .434
                                                                                                            2.11E+04
 1.816
              945.0
                         .450
                                   2.02E+04
                                                                         1.765
                                                                                       951.1
                                                                                                  . 445
                                                                                                            2.05E+04
              923.7
 1.867
                         457
                                   2.19E+04
                                                                         1.816
                                                                                       944.3
                                                                                                  .452
                                                                                                            1.92E+04
              911.5
 1.918
                         .465
                                   2.09E+04
                                                                                                  .459
                                                                         1.867
                                                                                       922.7
                                                                                                            2.13E+04
 1.994
              917.2
                         .476
                                   1.99E+04
                                                                         1.918
                                                                                      910.9
                                                                                                  .466
                                                                                                            2.05E+04
 2.070
              787.0
                         .508
                                   1.04E+05
                                                                         1.994
                                                                                      917.0
                                                                                                  .477
                                                                                                            1.92E+04
```

771.3

.514

1.25E+05

771.3

1.994

2.070

.477

.514

1.92E+04

1.25E+05

4.76E+04

```
POINT SERIAL NO. 3106.061 (TIME= 202.50 SEC)
                                                                     POINT SERIAL NO. 1107.010 (TIME= 242.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE ( PE-3)
                               4.99 MPA
                                                                     LOOP PRESSURE(PE-3)
                                                                                                      5.01 MPA
                                                                                                   478.3 K
FCV TEMPERATURE ( TE-FCV-1T)
                            476.5 K
                                                                     FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY
                             8.689E+05 J/KG
                                                                     LHP INLET ENTHALPY
                                                                                                  8.769E+05 J/KG
                                                                     TEST SECTION:
TEST SECTION:
                                                                                                        .81 MPA
    PRESSURE
                                  .80 MPA
                                                                          PRESSURE
    SAT TEMP
                               443.69 K
                                                                          SAT TEMP
                                                                                                    443.88 K
                               18.17 KG/SEC-M**2
                                                                                                    46.24 KG/SEC-M**2
    MASS FLUX
                                                                          MASS FLUX
     INLET QUALITY
                                                                         INLET QUALITY
                                .072
                                                                                                      .076
                                                                                                  8.769E+05 J/KG
    INLET ENTHALPY
                             8.689E+05 J/KG
                                                                         INLET ENTHALPY
                                                                     QUENCH FRONT:
QUENCH FRONT:
                                  .426 M
                                                                         ELEVATION
                                                                                                       .391 M
    ELEVATION
                                .0036 M/SEC
    VELOCITY
                                                                          VELOCITY
                                                                                                      .0019 M/SEC
                                 . 147
    QUALITY
                                                                          QUALITY
                                                                                                      . 126
NET LHP POWER TO FLUID
                                  0.0 W
                                                                     NET LIIP POWER TO FLUID
                                                                                                       0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                     ELEVATION
                                                                                DZQF
                                                                                          TV
                                                                                                 XE XA
ELEVATION DZQF
                    TV
                             XE
                                                                                 (M)
                                                                                          (K)
                                  XA
                                                                      (M)
            (M)
 (M)
                     (K)
                                                                      1.232
                                                                               .841
                                                                                         717.6 .243 .188
1.841 1.415 /80.0
                           .455 .336
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     ELEVATION TEMP XE
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                                  HEAT FLUX HEAT LOSS
ELEVATION TEMP
                   XE
                             HEAT FLUX HEAT LOSS
                                                                                  (K)
                                                                                                        W/M##2
                                                                                                                      M/M*#5
                                                                     (M)
                                  W/M##2
                                               W/M**2
 (M)
              (K)
                                                                       .013
                                                                                  443.8
                                                                                             .077
                                                                                                       4.31E+04
 .013
                       .074
                                  1.90E+04
                                                                       .051
                                                                                  454.0
                                                                                             .082
                                                                                                       4.37E+04
             445.9
 .051
                       .079
                                  1.93E+04
                                                                       .063
                                                                                  452.3
                                                                                             .083
                                                                                                       4.36E+04
             453.6
                       .080
  .063
             451.3
                                  1.91E+04
                                                                       .089
                                                                                  458.9
                                                                                             .086
                                                                                                       4.40E+04
                       .084
                                 1.96E+04
                                                                       .114
                                                                                  454.1
                                                                                             .089
                                                                                                       4.42E+04
  .089
             459.4
                       .087
                                                                       . 140
                                                                                             .092
 .114
             454.2
                                 1.96E+04
                                                                                  452.2
                                                                                                       4.37E+04
  . 140
             450.4
                        .090
                                 1.90E+04
                                                                       . 165
                                                                                  452.9
                                                                                             .095
                                                                                                       4.37E+04
  . 165
             452.5
                        .094
                                 1.93E+04
                                                                       .317
                                                                                  460.4
                                                                                             . 113
                                                                                                       4.49E+04
  .317
             463.1
                        . 116
                                 2.43E+04
                                                                       . 394
                                                                                  649.8
                                                                                             .126
                                                                                                       7.97E+04
                                                                                             . 140
                       .137
                                 5.30E+04
  .394
             580.6
                                                                       . 470
                                                                                  871.3
                                                                                                       5.77E+04
                       .160
                                  3.78E+04
                                                                                             . 152
  .470
             724.4
                                                                       .546
                                                                                  904.2
                                                                                                       5.46E+04
  .546
             750.6
                        .178
                                 2.94E+04
                                                                       .622
                                                                                  929.2
                                                                                             . 163
                                                                                                       5.39E+04
             160.3
                        . 193
  .622
                                 2.89E+04
                                                                       .698
                                                                                  952.7
                                                                                             . 174
                                                                                                       5.22E+04
                                                                                  974.1
             789.5
                       .208
                                 2.93E+04
                                                                                             . 185
                                                                                                       5.18E+04
  .698
                                                                       .775
                       .224
                                                                                             . 195
                                                                                  993.0
  .775
             810.9
                                 3.07E+01;
                                                                       .851
                                                                                                       5.24E+04
                                                                                             .206
  .851
             841.9
                        .240
                                 2.97E+04
                                                                       .927
                                                                                  1006.2
                                                                                                       5.12E+04
                                 2.99E+04
                                                                                             .216
  .927
             862.4
                        .255
                                                                      1.003
                                                                                 1013.9
                                                                                                       5.14E+04
                                                                                             .225
                        .270
                                 2.73E+04
                                                                      1.067
                                                                                  948.4
 1,003
             861.9
                                                                                                       4.41E+04
                                                                                                                    3.88E+03
                       .281
                                2.32E+04
                                                                      1.156
                                                                                 1005.2
                                                                                             .235
 1.067
                                                                                                       4.69E+04
                                                                                                                    1.73E+03
             817.7
                                                                                             .245
 1,156
             859.1
                       .296
                                 2.47E+04
                                               2.26E+02
                                                                      1.232
                                                                                  951.4
                                                                                                       4.60E+04
                       .326
                                                                                             .248
                                 9.15E+04
                                                                      1.257
                                                                                  964.4
 1.232
             677.9
                                                                                                       5-05E+04
                       . 344
                                                                                  981.4
 1.257
             737.2
                                 1.13E+05
                                                                      1.321
                                                                                             .257
                                                                                                       4.96E+04
                       .374
                                                                                 1039.5
                                 2.54E+04
                                                                                             .265
 1.321
             862.2
                                                                      1.384
                                                                                                       5.06E+04
                       . 385
                                                                                             .276
             910.5
                                 2.50E+04
                                                                      1.461
                                                                                 1052.8
                                                                                                       5.06E+04
 1.384
                       .398
                                                                                             .283
 1,460
             928.2
                                 2.48E+04
                                                                      1.511
                                                                                 1039.7
                                                                                                       4.78E+04
                                                                                  989.8
                                                                                             .289
 1.511
             924.1
                       .407
                                 2.30E+04
                                                                      1.562
                                                                                                       5.03E+04
 1.562
             912.2
                       .415
                                 2.35E+04
                                                                      1.613
                                                                                 1019.5
                                                                                             .296
                                                                                                       5.03E+04
                                 2.27E+04
 1.613
             930.8
                       .423
                                                                     1.689
                                                                                 1048.0
                                                                                                       5.00E+04
                                                                                             . 306
 1.689
             944.2
                       . 434
                                 2.11E+04
                                                                     1.765
                                                                                 1058.3
                                                                                             .317
                                                                                                       4.98E+04
             951.1
                       . 445
                                                                                 1045.3
                                                                                                       4.72E+04
 1.765
                                 2.05E+04
                                                                     1.816
                                                                                             .323
                       .452
                                                                                             .330
 1.816
             944.3
                                 1.92E+04
                                                                     1.867
                                                                                  987.3
                                                                                                       4.83E+04
 1.867
             922.7
                       .459
                                 2.13E+04
                                                                     1.918
                                                                                  988.7
                                                                                                       4.92E+04
                                                                                             . 336
             910.9
 1.918
                       .466
                                 2.05E+04
                                                                     1.994
                                                                                 1011.4
                                                                                             . 346
                                                                                                       4.73E+04
```

2.070

1023.6

	THEL. PAG	il Gill Ext	Entreet, No. 101				or our con			
POINT SER	IAL NO. 21	07.010	(TIME= 243.50 SEC)	POINT SERI	AL NO. 3	107.010	(TIME=	243.50 SE	C)
LOOP PRESS	SURE(PE-3)		5.01 MPA		LOOP PRESS	URE(PE-3)			5.01 MPA	
FCV TEMPER	RATURE(IE-F	CV-11)	478.3 K		FCV TEMPER	ATURE (TE-	FCV-1T)	- 4	78.3 K	
LHP INLET	ENTHALPY		8.769E+05 J/KG		LHP INLET	ENTHALPY		8.769	E+05 J/KG	
TEST SECTI	ION:				TEST SECTI	ON:				
PRESS	SURE		.81 MPA		PRESS	URE			.81 MPA	
SAT 1	TEMP		443.86 K		SAI I	EMP		1,1,	3.86 K	
MASS	FLUX		46.22 KG/SEC	-M**2	MASS	FLUX		žą.	6.22 KG/SE	C-M**2
INLET	T QUALITY		.076		INLET	QUALITY			.076	
INLE	[ENTHALPY		8.769E+05 J/KG		INLET	ENTHALPY		8.769	E+05 J/KG	
QUENCH FRO	ONT:				QUENCH FRO	NI:				
ELEVA	ATION		.393 M	-	ELEVA	TION			. 393 M	
VELOC	CITY		.0019 M/SEC		VELOC	ITY			0019 M/SEC	
QUAL	ITY		. 126		QUALI	IY			. 126	
NET LHP PO	OWER TO FLU	110	0.0 W	-M**2	NET LHP PO	WER TO FLE	010		0.0 W	
VAPOR TEM	PERATURE ME	ASUREMENT	LOCATION INFORMA	TION	VAPOR TEMP	ERATURE MI	EASUREMENT	LOCAT	ION INFORM	ATION
ELEVATION	DZQF	17	XE XA		ELEVATION	DZQF	IV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.537	1.144	780.2	.282 .208	HEAT LOSS W/M**2	1.841	1.448	814.4	.323	. 232	
WALL TEMPE	ERATURE MEA	SUREMENT	LOCATION INFORMAT	ION	WALL TEMPE	RATURE MEA	ASUREMENT	LOCATI	ON INFORMA	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2	(M)	(K)			W/M##2	M/W**5
.013	443.8	.077	4.32E+04		.013	443.8	.077		4.32E+04	
.051	453.9	.082	4.35E+04		.051	453.9	.082		4.35E+04	
.063	452.2	.083	4.35E+04		.063	452.2	.083		4.35E+04	
.089	458.8	.086	4.38E+04		.089	458.8	.086		4.38E+04	
.114	454.0	.089	4.37E+04		. 114	454.0	.089		4.37E+04	
. 140	452.1	.092	4.34E+04		. 146	452.1	.092		4.34E+04	
. 165	452.8	.095	4.35E+04		. 165	452.8	.095		4.35E+04	
.317	460.3	.113	4.46E+04		.317	460.3	.113		4.46E+0.	
. 394	636.0	. 126	7.96E+04		. 394	636.0	. 126		7.96E+04	
, 470	870.3	. 140	5.79E+04		. 470	870.3	. 140		5.79E+04	
.546	903.5	. 152	5.47E+04		.546	903.5	. 152		5.47E+04	
.622	928.6	. 163	5.41E+04		.622	928.6	. 163		5.41E+04	
.698	952.1	.174	5.22E+04		.698	952.1	. 174		5.22E+04	
. 115	9/3.6	. 184	5.19E+04		.775	973.6	. 184		5.19E+G4	
027	1005 7	. 195	5.241.404		.851	992.4	. 195		241 +04	
1 007	1005.7	.206	5.105+04		.921	1005.7	. 206		5. 10E+04	
1.067	008 1	224	h h05+0h	h OhE+O2	1.003	0013.4	.210		1. 14E *()4	h Obstant
1 156	1000 8	225	h 68F+0h	1 775+03	1 156	1000 9	226		4.40E+04	4.041+03
1 232	951.1	245	h 61E+0h	1.172.03	1.120	051 1	245		4.00ET04	1.771.403
1.257	964.0	248	5 035+04		1 257	964.0	243		5 035+04	
1.321	981.0	257	4 95F+0B		1 321	981.0	257		0.03E+04	
1.384	1039 1	265	5.04F+04		1 384	1039 1	265		5 Ob E+Ob	
1.461	1052.4	.276	5.05F+04		1 461	1052 4	276		5.05E+04	
1.511	1039.3	.282	4.77E+04		1.511	1039.3	282		4. 77E+00	
1.562	989.4	.289	5.00E+04		1.562	989 4	289		5 OOF+04	
1.613	1019.1	.296	5.00E+04		1.613	1019.1	296		5 OOF +04	
1.689	1047.6	, 306	4.97E+04		1.689	1047.6	306	1	4.97E+04	
1.765	1057.9	.316	4.96E+04		1.765	1057.9	316	1	4.96E+04	
1.816	1044.9	. 323	4.69E+04		1.816	1044.9	. 323		4.69E+04	
1.867	987.0	.329	4.80E+04		1,867	987.0	.329	1	4.80E+04	
1.918	988.4	. 336	4.87E+04		1.918	988.4	. 336	1	4.87E+04	
1.994	1011.2	. 346	4.72E+04		1,994	1011.2	. 346	1	4.72E+04	
2.070	1023.3	. 355	4.74E+04		2.070	1023.3	. 355	1	4.74E+04	
					50.1 56.5 56	10000	. 433			

1017.4

INEL POST-CHE EXPERIMENT NO. 107

POINT SERIAL NO. 1107.030 (TIME= 320.50 SEC)

LOOP PRESSURE(PE-3) 4.99 MPA
FCV TEMPERATURE(TE-FCV-1T) 478.0 K

LHP INLET ENTHALPY
TEST SECTION:

PRESSURE
SAT TEMP
MASS FLUX
INLET QUALITY
INLET ENTHALPY

8.755E+05 J/KG

8.755E+05 J/KG

QUENCH FRONT:

ELEVATION .540 M

VELOCITY .0019 M/SEC

QUALITY .144

NET LIPP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.232 .692 678.8 .234 .188

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE M/M##2 W/M##2 (K) (M) .013 .076 4.28E+04 442.2 .051 452.5 .081 4.28[+04 .082 4.28E+04 .063 451.2 .089 .085 4.29E+04 456.8 . 114 452.9 .088 4.28E+04 . 140 .091 4.28E+04 451.7 452.4 .094 4.28E+04 . 165 .317 454.2 .112 4.31E+04 . 394 460.3 .121 4.39E+04 . 131 485.6 5.08E+04 .470 777.9 . 145 8.24E+04 .546 .159 .622 877.5 5.24E+04 .169 .698 908.2 5.03E+04 .180 4.99E+04 .775 934.0 . 190 958.1 4.86E+04 .851 .927 .200 973.9 4.79E+04 .210 1.003 986.0 4.73E+04 1.067 926.9 .217 4.13E+04 3.91E+03 1.156 980.7 .228 4.33E+04 2.08E+03 929.7 4.31E+04 1.232 .237 944.4 1.257 .240 4.58E+04 .248 1.321 965.1 4.51. +04 .255 1.384 1019.7 4.49E+04 1.461 1033.3 .265 4.49E+04 1.511 1021.7 .271 4.21E+04 .277 4.50E+04 973.8 1.562 1.613 1003.9 .283 4.49E+04 1.689 .292 1033.1 4.44E+04 1.765 1044.9 .301 4.41E+04 1.816 1032.7 4.11E+04 . 307 .313 4.44E+04 1.867 976.0 .319 1.918 980.2 4.41E+04 1.994 1003.7 .328 4.39E+04

. 338

4.37E+04

INEL POST-CHE EXPERIMENT NO. 107

FOINT SERIAL NO. 2107.030 (TIME= 320.50 SEC)

4.99 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 478.0 K LHP INLET ENTHALPY 8.755E+05 J/KG TEST SECTION: .81 MPA PRESSURE 443.89 K SAT TEMP 45.73 KG/SEC-M**2 MASS FLUX .075 IN ET QUALITY INLET ENTHALPY 8.755E+05 J/KG QUENCH FRONT: ELEVATION .540 M .0019 M/SEC VELOCITY . 144 QUALITY 0.0 W NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 .997 759.1 .271 .203

WALL TEMPER	RATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2
0.1.1	hh2 2	0.77	b 205+0b	
.013	442.2	.076	4.28E+04	
.051	452.5	.081	4.28E+04	
.063	451.2	.082	4.28E+01	
.089	456.8	.085	4.29E+04	
.114	452.9	.088	4.28E+04	
. 140	451.7	.091	4.28E+04	
. 165	452.4	.094	4.28E+04	
.317	454.2	.112	4.31E+04	
. 394	460.3	. 121	4.39E+04	
.470	485.6	. 131	5.08E+04	
.546	777.9	. 145	8.24E+04	
.622	877.5	. 159	5.24E+04	
.698	908.2	. 169	5.03E+04	
. 175	934.0	. 180	4.99E+04	
. 851	958.1	. 190	4.86E+04	
.927	973.9	. 200	4.79E+04	
1.003	986.0	.510	4.73E+04	
1.067	926.9	.217	4.13E+04	3.91E+03
1.156	980.7	.228	4.33E+04	2.08E+03
1.232	929.7	.237	4.31E+04	
1.257	944.4	. 240	4.58E+04	
1.321	965.1	. 248	4.51E+04	
1.384	1019.7	.255	4.49E+04	
1.460	1033.3	.265	4.49E+04	
1.511	1021.7	.271	4.21E+04	
1.562	973.8	.277	4.50E+04	
1.613	1003.9	.283	4.49E+04	
1.689	1033.1	.292	4.44E+04	
1.765	1044.9	. 301	4.41E+04	
1.816	1032.7	. 307	4.11E+04	
1.867	976.0	. 313	4.44E+04	
1.918	980.2	. 319	4.41E+04	
1.994	1003.7	. 328	4.39E+04	
2.070	1017.4	.338	4.37E+04	

1.867

1.918

1.994

2.070

1032.7

976.0

980.2

1003.7

1017.4

.307

.313

.319

.328

. 338

4.11E+04

4.44E+04

4.41E+04

4.37E+04

4.39E+04

INEL POST-CHE EXPERIMENT NO. 107

INEL POST-CHE EXPERIMENT NO. 107 POINT SERIAL NO. 3107.030 (TIME= 320.50 SEC) POINT SERIAL NO. 1107.040 (TIME= 352.50 SEC) FCV TEMPERATURE(TE-FCV-TT) 4.99 MPA 478.0 K LHP INLET ENTHALPY 8.755E+05 J/KG TEST SECTION: 4.99 MPA 478.0 K LOOP PRESSURE (PE-3) FCV TEMPERATURE(TE-FCV-IT) 478.0 K LHP INLET ENTHALPY 8.754E+05 J/KG TEST SECTION: .81 MPA | SECTION:
PRESSURE	.80 MPA
SAI TEMP	.443.80 K
MASS FLUX	.45.65 KG/SEC-M**2
INLET QUALITY	.075
INLET ENTHALPY	8.754E+05 J/KG
SAT TEMP 443.89 K
MASS FLUX 45.73 KG/SEC-M**2
INLET QUALITY .075
INLET ENTHALPY 8.755E+05 J/KG
CH FRONT: QUENCH FRONT: QUENCH FRONT: .540 M .0019 M/SEC ELEVATION ELEVATION .601 M VELOCITY .0019 M
QUALITY .151

NET LHP POWER TO FLUID 0.0 W VELOCITY .0019 M/SEC QUALITY .144
NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (M) (K) 1.841 1.232 1.302 780.4 .307 .227 .631 640.2 .233 .192 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION W/M**2 (M) (K) W/M**2 (M) (K) W/M##2 W/M##2 .076 4.28E+04 .081 4.28E+04 082 4.28E+04 441.8 .076 452.1 .081 450.8 .082 .013 442.2 .013 4.25E+04 .051 452.5 .051 4.27E+04 .063 451.2 .063 4.27E+04 .085 .089 4.29E+04 455.9 .089 456.8 .085 4.28E+04 .088 .114 .114 452.9 4.28E+04 452.0 .088 4.26E+04 .091 . 140 451.7 4.28E+04 . 140 451.2 .091 4.27E+04 452.4 4.28E+04 . 165 .094 .165 451.8 .094 4.27E+04 4.28E+04 4.31E+04 5.08E+04 8.24E+04 5.24E+04 5.03E+04 4.99E+04 4.86E+04 .317 452.6 .317 454.2 .112 4.28E+04 .112 .121 460.3 . 394 . 394 456.4 .121 4.32E+04 .131 .470 485.6 .470 470.1 . 130 4.48E+G4 5.80E+04 . 145 . 141 . 546 777.9 .546 497.7 .159 .622 877.5 . 155 .622 778.9 7.89£+04 . 169 .698 908.2 .698 890.2 .168 4.94E+04 .775 . 180 .775 .179 934.0 919.7 4.78E+04 .190 .851 958.1 . 188 .851 946.8 4.76E+04 4.86E.04 4.79E+04 4.73E+04 4.13E+04 4.33E+04 4.31E+04 4.58E+04 .200 973.9 .927 964.3 . 198 .927 4.70E+04 .210 986.0 1.003 1.003 978.2 .208 4.65E+04 .217 921.5 1.067 926.9 1.067 .216 4.12E+04 3.85E+03 980.7 1.156 .228 1.156 974.9 .226 4.36E+04 1.52E+03 1.232 929.7 .237 1.232 923.7 .235 4.31E+04 .240 1.257 944.4 1.257 .238 938.6 4.60E+04 .248 1.321 965.1 4.51E+04 1.321 961.2 .246 4.54E+04 .255 4.49E+04 1.384 1019.7 1.384 1016.1 .254 4.51E+04 4.49E+04 1,460 1033.3 .265 1.460 1930.3 .263 4.51E+04 1021.7 4.21E+04 1.511 .271 .269 1.511 1019.5 4.19E+04 1.562 973.8 .277 4.50E+04 .275 1.562 971.5 4.48E+04 .283 1.613 1003.9 4.49E+04 1.613 1002.2 .281 4.44E+04 1.689 1033.1 1032.6 .292 4.44E+04 1.689 .291 4.39E+04 1.765 1044.9 4.41E+04 . 300 .301 1.765 1045.0 4.37E+04

1.816

1.867

1.918

1.994

2.070

. 305

.311

.317

. 326

4.09E+04

4.39E+04

4.36E+04

4.33E+04

.335 4.32E+04

1033.2

975.4

981.2

1005.1

LOOP PRESSURE(PE-3)

LHP INLET ENTHALPY

SAT TEMP

MASS FLUX

VELOCITY

QUALITY

INLET QUALITY

NET LIIP POWER TO FLUID

DZQF

(M)

.937

TV

(K)

INLET ENTHALPY

TEST SECTION: PRESSURE

QUENCH FRONT: ELEVATION

ELEVATION

(M) 1.537

FCV TEMPERATURE (TE-FCV-1T)

INEL POST-CHE EXPERIMENT NO. 107 POINT SERIAL NO. 3107.040 (TIME= 352.50 SEC) POINT SERIAL NO. 2107.040 (TIME= 351.50 SEC) LOOP PRESSURE(PE-3) 4.99 MPA 5.01 MPA 478.0 K FCV TEMPERATURE (TE-FCV-1T) 478.0 K 8.755E+05 J/KG LHP INLET ENTHALPY 8.754E+05 J/KG TEST SECTION: .80 MPA PRESSURE .80 MPA 443.79 K SAT TEMP 443.80 K 45.65 KG/SEC-M**2 45.60 KG/SEC-M**2 MASS FLUX INLET QUALITY .075 .075 8.755E+05 J/KG INLET ENTHALPY 8.754E+05 J/KG QUENCH FRONT: .599 M ELEVATION .601 M .0019 M/SEC VELOCITY .0019 M/SEC QUALITY . 151 . 151 NET LIIP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION IV DZQF XE XA XE XA (M) (M) (K) 741.9 .272 .207 1.841 1.240 785.4 .308 .226 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS XE (M) (K) W/M##2 W/M##2 441.8 .013 .076 4.25E+04 .051 452.1 .081 4.27E+04 .063 450.8 .082 4.27E+04 .089 455.9 .085 4.28E+04 .114 452.0 .088 4.26E+04 . 140 451.2 .091 4.27E+04 .165 451.8 .094 4.27E+04 .317 452.6 .112 4.28E+04 . 394 456.4 .121 4.32E+04 .130 .470 470.1 4.48E+04 .546 497.7 . 141 5.80E+04 .622 778.9 . 155 7.89E+04 .698 890.2 . 168 4.94E+04 .179 .775 4.78E+04 919.7 . 188 .851 946.8 4.76E+04

.927

1,003

1.067

1,156

1.232

1.257

1.321

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

964.3

978.2

921.5

974.9

923.7

938.6

961.2

1016.1

1030.3

1019.5

971.5

1002.2

1032.6

1045.0

1033.2

975.4

981.2

1005.1

1019.4

. 198

.208

.216

.226

.235

.238

.246 .254

.263

.269

.275

.281

.291

. 300

.305

.311

.317

. 326

. 335

4.70E+04

4.65E+04

4.12E+04

4.36E+04

4.31E+04

4.60E+04 4.54E+04

4.51E+04

4.51E+04

4.19E+04

4.48E+04

4.44E+04

4.39E+04

4.37E+04

4.09E+04

4.39E+04

4.36E+04

4.33E+04

4.32E+04

3.85E+03

1.52E+03

(M)	(K)		W/M**2	W/M##2
.013	441.8	.076	4.25E+04	
.051	452.1	.081	4.27E+04	
.063	450.8	.082	4.26E+04	
.089	455.9	.085	4.28E+04	
. 114	452.0	.088	4.27E+04	
. 140	451.2	.091	4.27E+04	
. 165	451.8	.094	4.27E+04	
. 317	452.7	.112	4.28E+04	
. 394	456.5	. 121	4.33E+04	
.470	470.4	. 130	4.49E+04	
.546	499.3	. 141	5.90E+04	
.622	787.8	. 155	7.84E+04	
.698	890.8	. 168	4.94E+04	
.775	920.1	.179	4.79E+04	
.851	947.2	. 189	4.76E+04	
.927	964.7	. 198	4.70E+04	
1.003	978.5	.208	4.65E+04	
1.067	921.7	.216	4.12E+04	3.79E+03
1.156	975.1	.226	4.36E+04	1.52E+03
1.232	923.9	.235	4.31E+04	
1.257	938.8	.238	4.60E+04	
1.321	961.3	.246	4.54E+04	
1.384	1016.3	. 254	4.51E+04	
1.460	1030.4	.263	4.49E-04	
1.511	1019.6	.269	4.19E+04	
1.562	971.6	.275	4.48E+04	
1.613	1002.3	.281	4.44E+04	
1.689	1032.6	.291	4.39E+04	
1.765	1045.0	. 300	4.37E+04	
1.816	1033.2	. 306	4.09E+04	
1.867	975.4	. 312	4.398+04	
1.913	981.2	.318	4.36E+04	
1.994	1005.0	.327	4.33E+04	
2.070	1019.4	. 336	4.225+04	

. 338

4.36E+04

4.33E+04

1005.9

1020.9

1.994

2.070

1005.9

1020.9

.328

. 338

4.36E+04

4.33E+04

```
POINT SERIAL NO. 1107.050 (TIME= 384.50 SEC)
                                                                   POINT SERIAL NO. 2107.050 (TIME= 384.50 SEC)
LOOP PRESSURE(PE-3) 4.98 MPA
FCV TEMPERATURE(TE-FCV-1T) 4.78.0 K
                                                                   LOOP PRESSURE(PE-3)
                                                                                                   4.98 MPA
                                                                  FCV TEMPERATURE(TE-FCV-11) 478.0 K
LHP INLET ENTHALPY 8.754E+05 J/KG
                                                                   LHP INLET ENTHALPY 8.754E+05 J/KG
                                                                   TEST SECTION:
TEST SECTION:
                          443.86 K
45.43 KC/SEC-M**2
.075
                                                                                           .81 MPA
443.86 K
45.43 KG/SEC-M**2
.075
    PRESSURE
                                                                       PRESSURE
    SAT TEMP
                                                                       SAT TEMP
    MASS FLUX
                                                                       MASS FLUX
    INLET QUALITY
                                                                       INLET QUALITY
                                                                       INLET ENTHALPY 8.754E+05 J/KG
                     8.754E+05 J/KG
    INLET ENTHALPY
QUENCH FRONT:
                                                                  QUENCH FRONT:
    ELEVATION
                                .662 M
                                                                       ELEVATION
                                                                                                    .662 M
    VELOCITY
                             .0019 M/SEC
                                                                       VELOCITY
                                                                                                  .0019 M/SEC
                              .158
    QUALITY
                                                                       QUALITY
                                                                                                  .158
NET LHP POWER TO FLUID
                                                                  NET LHP POWER TO FLUID
                                0.0 W
                                                                                                   0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV
                                                                   ELEVATION DZQF IV XE XA
                         XE XA
 (M)
           (M)
                                                                    (M)
                                                                               (M)
                                                                                       (K)
1.232
           .570 617.2 .234 .197
                                                                   1.537 .875 742.1 .273 .208
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                  ELEVATION TEMP XE HEAT FLUX
                                                                                                                HEAT LOSS
                                 M/W##5
                                              W/M##2
                                                                                                    W/M##2
                                                                                                                  W/M**2
 (M)
             (K)
                                                                    (M)
                                                                                (K)
 .013
                                                                    .013
             441.9
                     .076
                                4.26E+04
                                                                                441.9
                                                                                          .076
                                                                                                    4.26E+04
                                4.27E+04
                                                                    .051
                                                                                          .081
 .051
             451.7
                       .081
                                                                                451.7
                                                                                                    4.27E+04
 -063
             450.5
                       .082
                                4.27E+04
                                                                     .063
                                                                                450.5
                                                                                                    4.27E+04
                                                                                          .082
                       .085
  .089
             455.3
                                4.27E+04
                                                                     .089
                                                                                455.3
                                                                                          .085
                                                                                                    4.27E+04
 -110
                       .088
                                                                    .114
                                4.26E+04
                                                                                452.0
                                                                                          .088
                                                                                                    4.26E+04
             452.0
 . 140
                       .091
                                                                    .140
                                                                                          .091
             451.1
                                4.28E+04
                                                                                451.1
                                                                                                    4.28E+04
  . 165
             451.5
                       .094
                                4.27E+04
                                                                                          .094
                                                                                                    4.27E+04
                                                                     .165
                                                                                451.5
                                                                     .317
                                                                                          .112
  .317
             451.9
                       .112
                                4.28E+04
                                                                                451.9
                                                                                                    4.28E+04
                       .121
                                4.30E+04
 . 394
                                                                                454.7
             454.7
                                                                     . 394
                                                                                          .121
                                                                                                    4.30E+04
                       .130
                                                                                                    4.381+04
  470
             463.9
                                4.38E+04
                                                                     .470
                                                                                463.9
                                                                                          . 130
                                                                                          . 140
  .546
             474.9
                       .140
                               4.58E+04
                                                                     .546
                                                                                474.9
                                                                                                    4.58E+04
 .622
                       . 151
                                                                                          . 151
             491.7
                               6.47E+C*
                                                                     .622
                                                                                491.7
                                                                                                   6.47E+04
                                                                    .698
 .698
             850.0
                       165
                               6.88E+04
                                                                                850.0
                                                                                          . 165
                                                                                                   6.88E+04
             901.1
 .775
                       .178
                                5.05E+04
                                                                    .775
                                                                                901.1
                                                                                          .178
                                                                                                   5.05E+04
 .851
                       . 188
             931.0
                                4.91E+04
                                                                                931.0
                                                                                                   4.91E+04
                                                                    .851
                                                                                          , 188
 .927
                       . 198
                                4.80E+04
                                                                                951.2
             951.2
                                                                    .927
                                                                                          . 198
                                                                                                   4.80E+04
                       .208
                                                                                          .208
 1.003
             966.6
                                4.76E+04
                                                                                                   4.76E+04
                                                                    1.003
                                                                                966.6
                                                                                          .216
 1.067
             912.4
                       .216
                                4.22E+04
                                              3.80E+03
                                                                    1.067
                                                                                912.4
                                                                                                   4.22E+04
                                                                                                                 3.80E+03
                                                                                                4.49E+04
 1.156
             966.9
                       .227
                                4.49E+04
                                              1.13E+03
                                                                    1.156
                                                                                966.9
                                                                                           .227
                                                                                                                  1.13E+03
 1.232
             916.3
                       .236
                                4.35E+04
                                                                                          .236
                                                                    1.232
                                                                                916.3
                                                                                                    4.35E+04
                                                                    1.257
 1.257
             930.7
                       .239
                                4.58E+04
                                                                                930.7
                                                                                                    4.58E+04
                                                                                           .239
 1.321
            955.2
                       .247
                                4.56E+04
                                                                    1.321
                                                                                955.2
                                                                                           .247
                                                                                                    4.56E+04
 1.384
            1009.8
                       .255
                                4.57E+04
                                                                    1.384
                                                                               1009.8
                                                                                                    4.57E+04
                                                                                           .255
            1025.6
                       .264
 1.460
                                4.51E+04
                                                                                          .264
                                                                    1,460
                                                                               1025.6
                                                                                                    4.51E+04
 1.511
            1015.6
                       .270
                                4.22E+04
                                                                                          .270
                                                                                                    4.22E+04
                                                                    1.511
                                                                               1015.6
 1.562
            968.5
                       .277
                                4.51E+04
                                                                    1.562
                                                                                968.5
                                                                                          .277
                                                                                                    4.51E+04
 1.613
            999.5
                       .283
                                4.48E+04
                                                                    1.613
                                                                                999.5
                                                                                          .283
                                                                                                    4.48E+04
                                                                                          .292
 1.689
            1030.8
                       .292
                                4.45E+04
                                                                    1.689
                                                                               1030.8
                                                                                                    4.45E+04
                       .301
                                4.39E+04
 1,765
            1044.6
                                                                               1044.6
                                                                    1.765
                                                                                           .301
                                                                                                    4.39E+04
 1.816
            1032.9
                       .307
                                4-10F+04
                                                                               1032.9
                                                                    1.816
                                                                                          .307
                                                                                                    4.10E+04
                       .313
 1.867
            974.9
                                4.40E+04
                                                                                                    4.40E+04
                                                                    1.867
                                                                               974.9
                                                                                          .313
            981.4
                       .319
                                                                                          .319
 1.918
                                4.40E+04
                                                                    1.918
                                                                                981.4
                                                                                                    4.40E+04
```

1.994

	INEL POS	SI-CHE EXP	EKIMENI NO. 107			INEL POS	ST-CHE EXP	ERIMENI	NO. 107	
POINT SER	TAL NO. 31	107.050	(TIME= 384.50 SE	C)	POINT SERIA	AL NO. 2	1C060	(TIME=	404.50 SEC	C)
LOOP PRESS	SURE(PE-3)		4.98 MPA		LOOP PRESSI	URE (PE - 3)		5	OO MPA	
FCV TEMPER	RATURE (TE-	CV-1T)	478.0 K		FCV TEMPERA	ATURE (IE-	CV-1T)	47	7.9 K	
LHP INLET	ENTHALPY		8.754E+05 J/KG		LHP INLET I	ENTHALPY		8.753E	+05 J/KG	
TEST SECT	ION:				TEST SECTIO	ON:				
PRESS	SURE		.81 MPA		PRESSI	JRE			.81 MPA	
SAT	EMP		443.86 K		SAT TI	EMP		443	.83 K	
MASS	FLUX		45.43 KG/SE	C-M**2	MASS I	FLUX		45	.02 KG/SEC	C-M##2
INLE	QUALITY		.075		INLET	QUALITY			075	
OUIENCH EDA	ENTHALPY		8. /541+115 J/KG		INLET	ENTHALPY		8.753t	+05 J/KG	
QUENCH FRO	NII.		662 H		QUENCH FROM	11;			600 H	
VELOR	LIV		0019 M/SEC		VELOCI	TON			010 M/SEC	
OUALI	ITY		158		OHALLI	V		.0	163 M/2EC	
NET LHP PO	OWER TO FLU	HD	0.0 W	C-M**2	NET LHP POP	ER TO FLI	110		0.0 W	
VAPOR TEMP	PERATURE ME	ASUREMENT	LOCATION INFORM	ATION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATI	ON INFORMA	ATION
ELEVATION	DZQF	TV	XE XA		ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.841	1.180	776.0	.310 .229		1.537	.838	716.9	.270 ,	210	
WALL TEMPE	RATURE MEA	SUREMENT	LOCATION INFORMA	TION HEAT LOSS W/M**2	WALL TEMPER	RATURE MEA	SUREMENT	LOCATIO	N INFORMAT	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	**	EAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)			M/M**2	M/W##5
.013	441.9 451.7 450.5 455.3 452.0 451.1 451.5 451.9 454.9	.076	4.26E+04 4.27E+04	3.80E+03 1.13E+03	.013	441.6	.076 .081 .082 .085 .088 .091 .094 .112 .121	14	.27E+04	
.051	451.7	.081	4.27[+04		.051	451.6	.081	L ₄	.26E+04	
.063	450.5	.082	4.27E+04		.063	450.4	.082	14	.27E+04	
.089	455.3	.085	4.27E+04 4.26E+04 4.28E+04 4.28E+04 4.28E+04 4.30E+04		.089	455.0	.085	14	.27E+04	
. 140	452.0	.000	4.201+04		.114	451.9	.088	14	.27E+04	
.165	451.5	094	h 27F+0h		165	420.9	.091	14	.27E+04 .27E+04	
.317	451.9	112	4 28E+04		317	451.4	112	-4	.28E+04	
. 394	454.7	. 121	4.30E+04		394	453.8	121	4	.29E+04	
.470	463.9 474.9 491.7 850.0 901.1 931.0	.130	4.38E+04 4.38E+04 4.58E+04 6.47E+04 6.88E+04 5.05E+04 4.91E+04		.470	461.2	. 130	t _k	.33E+04	
.546	474.9	. 140	4.58E+04		.546	468.4 465.6 692.3	. 140		448+04	
.622	491.7	. 151	6.47E+04		.622	465.6	. 149	ž.	.59E+04	
. 698	850.0	. 165	6.88E+04		.698	692.3	. 162	7	.921+04	
.775	901.1	.178	5.05E+04		.775	885.9	.176		.09E+04	
.851	931.0	. 188	4.91E+04		.851	920.4		4	.80E+04	
1.003	951.2 966.6	.198	4.80E+04 4.76E+04		.927	943.1		44	.68E+04	
1.067	912.4	.216	h 225+0h	3 805+03	1.003	959.4 906.5	.206	44	.63E+04	2 725.02
1.156	966.9	.227	4.22E+04 4.49E+04 4.35E+04	1 135+03	1 156	961.3	.214	4	.80E+04 .68E+04 .63E+04 .13E+04 .35E+04	3.78E+03
1.232	916.3	.236	4.35 E+04	1.132.03	1.232	911.0	.233	**	335+04	1.62E+03
1.257	930.7	.239	4.58E+04		1.257	927.4	.237	i i	.41E+04	
1.321	955.2	. 247	4.56E+04		1.321	951.6	.244	li.	49E+04	
1.384	1009.8	.255	4.57E+04		1.384	951.6 1005.9	. 252		45E+04	
1.460	1025.6	.264	4.51E+04		1.460	1023.0	.262		.39E+04	
1.511	1015.6 968.5	.270	4.22E+04 4.51E+04		1.511	1013.3	.267	14	.11E+04	
1.562	968.5	.277	4.51E+04		1.562	966.4		4	. 36E+04	
1.613	999.5	.283	4.48E+04		1.613	997.8	.280		.33E+04	
1.689	1030.8	.292	4.45E+04		1.689	1029.5	.289	4	.30E+04	
1.816	1032.0	.307	4.39E+04 4.10E+04		1.765	1044.4	.298	4	.26E+04	
1.867	974 0	.313	4,100,404		1.816	1033.0	. 303	3	97E+04	
1.918	214.7				1.867	974.9	. 309	4	29E+04	
	981 4	5.134								
1.994	1030.8 1044.6 1032.9 974.9 981.4 1005.9	.319	4.40£+04 4.36£+04		1 996	1006 6	319		235+04	
1.994	981 4 1005.9 1020.9	.328	4.36E+04 4.33E+04		1.994	1033.0 974.9 981.7 1006.5 1021.8	.324	4	.30E+04 .26E+04 .97E+04 .29E+04 .23E+04 .27E+04 .24E+04	

1006.5

1021.8

1.994

2.070

.324

. 333

4.27E+04

4.24E+04

POINT SERIAL NO. 2107.070 (TIME= 445.50 SEC) POINT SERIAL NO. 3107.060 (TIME= 404.50 SEC) FCV TEMPERATURE(TE-FCV-TT) 5.03 MPA 477.9 K FCV IEMPERATURE(IE-FCV-II) 5.00 MPJ LHP INLET ENTHALPY 477.9 K 5.00 MPA LHP INLET ENTHALPY 8.752E+05 J/KG LHP INLET ENTHALPY 8.753E+05 J/KG TEST SECTION: TEST SECTION: .81 MPA .81 MPA PRESSURE PRESSURE 443.90 K SAT TEMP 443.83 K MASS FLUX SAT TEMP 44.91 KG/SEC-M**2 45.02 KG/SEC-M**2 MASS FLUX INLET QUALITY INLET QUALITY 8.753E+05 J/KG INLET ENTHALPY 8.752E+05 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION 777 M .699 M ELEVATION VELOCITY .0019 M/SEC .0019 M/SEC VELOCITY . 174 QUALITY .162 0.0 W QUALITY. NET LIIP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA XE XA ELEVATION DZGF TV (M) (M) (K) (M) (K) (M) .760 711.1 .280 .218 1.537 1.143 776.1 .306 .227 1.841 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS TEMP XE HEAT FLUX HEAT LOSS ELEVATION ELEVATION W/H##2 W/M##2 W/M**2 (M) (K) W/M##2 (M) (K) .013 4.27E+04 .076 441.6 .076 4.27E+04 .013 441.6 4.26E+04 .051 451.2 .081 4.29E+04 .081 451.6 .051 .082 4.29E+04 .082 4.27E+04 .063 450.2 450.4 .063 .089 .085 .085 454.6 4.29E+04 455.0 4.27E+04 .089 .114 4.32E+04 .088 4.27E+04 451.2 .088 . 114 451.9 .140 .140 4.27E+04 450.8 .091 4.29E+04 450.9 .091 . 165 451.3 .094 4.28E+04 .094 4.27E+04 451.4 .165 451.1 .113 4.29E+04 .112 .317 .317 4.28E+04 451.5 453.0 .122 4.30E+04 .121 4.29E+04 . 394 453.8 . 394 .470 458.7 .131 4.32E+04 .130 4.33E+04 470 461.2 . 140 .140 4.448+04 .546 462.1 4.36E+04 468.4 .546 4.35E+04 . 149 4.59E+04 .622 457.1 . 149 465.6 .622 . 159 487.0 4.81E+04 .162 7.92E+04 .698 692.3 .698 .174 .775 713.8 9.23E+04 .176 5.09E+04 .775 885.9 .851 .189 4.80E+04 892.8 5.61E+04 .851 920.4 . 186 922.2 5.13E+04 .196 4.68E+04 .927 .201 .927 943.1 .211 941.6 5.01E+04 1,003 .206 4.63E+04 959.4 1.003 1.067 .220 2.73E+03 3.78E+03 895.4 4.45E+04 906.5 .214 4.13E+04 1.067 .231 1.62E+03 1,156 950.4 4.62E+04 1.05E+03 1.156 .224 4.35E+04 961.3 1.232 899.0 .240 4.48E+04 .233 4.33E+04 1.232 911.0 917.5 4.85E+04 .237 4.41E+04 1.257 .244 1.257 927.4 4.70E+04 .244 943.1 .252 951.6 4.49E+04 1.321 1.321 .260 .252 1.384 998.7 4.69E+04 1.384 1005.9 4.45E+04 1.460 1018.1 .270 4.62E+04 1023.0 .262 4.39E+04 1,460 .277 4.33E+04 1,511 1009.1 .267 4.11E+04 1.511 1013.3 .273 963.1 4.62E+04 1.562 .283 966.4 4.36E+04 1.562 995.1 .289 4.62E+04 .280 4.33E+04 1.613 1.613 997.8 1028.3 .299 4.54E+04 4.30E+04 1.689 1.689 1029.5 .289 1.765 1044.6 . 309 4.50E+04 1044.4 4.26E+04 1.765 .298 1034.1 .315 4.20E+04 .303 1.816 3.97E+04 1.816 1033.0 .321 1.867 976.7 4.44E+04 974.9 .309 4.29E+04 1.867 .327 4.23E+04 1.918 984.2 4.48E+04 . 315 1.918 981.7 . 336 1009.0 4.41E+04 1.994

INEL POST-CHE EXPERIMENT NO. 107

1025.4

. 346

4.39E+04

1009.0

1025.4

1.994

2.070

.336

. 346

4.39E+04

INEL POST-CHE EXPERIMENT NO. 107 POINT SERIAL GO. 2107.080 (TIME= 482.50 SEC) POINT SERIAL NO. 3107.070 (TIME= 445.50 SEC) LOOP PRESSURE (PE-3) 5.01 MPA 5.03 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 478.3 K 477.9 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 8.770E+05 J/KG 8.752E+05 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .81 MPA PRESSURE .81 MPA PRESSURE SAT TEMP 443.86 K 443.90 K SAT TEMP 44.91 KG/SEC-M**2 MASS FLUX 44.51 KG/SEC-M**2 MASS FLUX .075 INLET QUALITY .076 INLET QUALITY INLET ENTHALPY 8.770E+05 J/KG 8.752E+05 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .777 M ELEVATION .853 M ELEVATION .0019 M/SEC VELOCITY .0022 M/SEC VELOCITY .174 QUALITY . 186 QUALITY NET LHP POWER TO FLUID 0.0 W 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV TV XE XE XA ELEVATION DZQF (M) (M) (K) (M) (K) (M) 1.537 .683 680.0 .285 .228 784.6 .318 .234 1.841 1.065 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS TEMP XE HEAT FLUX XE ELEVATION W/M**2 W/M##2 W/M**2 (K) W/M##2 (M) (K) (M) .076 4.27E+04 .013 441.6 441.6 .077 4.30E+04 .013 451.0 .082 451.2 .081 4.29E+04 .051 4.31E+04 .051 449.8 .083 4.31E+04 .082 4.29E+04 .063 .063 450.2 .089 4.31E+04 .085 4.29E+04 454.1 .086 .089 454.6 4.32E+04 . 114 451.1 .089 4.31E+04 451.2 .088 .114 .092 4.31E+04 .140 450.8 .091 4.29E+04 . 140 450.7 4.31E+04 4.28E+04 . 165 451.0 .096 . 165 451.3 .094 .113 450.6 . 114 4.30E+04 4.29E+04 .317 .317 451.1 . 122 .394 4.30E+04 452.2 .123 4.31E+04 .394 453.0 4.34E+04 . 131 4.32E+04 .470 457.2 .132 .470 458.7 .546 . 141 458.8 4.36E+04 . 140 4.36E+04 .546 462.1 . 149 . 151 454.3 4.35E+04 4.35E+04 .622 .622 457.1 .159 4.81E+04 .698 471.5 .160 4.50E+04 487.0 .698 .775 9.23E+04 .775 .170 5.02E+04 713.8 . 174 482.3 5.61E+04 .851 686.2 . 185 8.89E+04 .851 892.8 .189 922.2 .201 5.13E+04 .927 887.7 .201 5.95E+04 .927 .213 .211 5.01E+04 1.003 914.6 5.19E+04 1,003 941.6 2.73E+03 1.91E+03 895.4 .220 4.45E+04 1.067 876.3 .222 4.73E+04 1.067 4.62E+04 1.05E+03 8.75E+02 .231 1.156 932.1 .234 4.83E+04 1.156 950.4 899.0 .240 4.48E+04 1.232 881.7 . 244 4.68E+04 1.232 .244 .247 5.01E+04 917.5 4.85E+04 1.257 898.0 1.257 .252 1.321 943.1 4.70E+04 1.321 929.2 .256 4.86E+04 998.7 .260 4.69E+04 1.384 984.7 .265 4.88E+04 1.384 .270 4.62E+04 .275 1018.1 1.460 1006.1 4.83E+04 1,460 .277 4.33E+04 .282 1.511 1009.1 1.511 997.9 4.54E+04 .283 4.62E+04 1.562 951.6 .288 4.82E+04 1.562 963.1 4.62E+04 1.613 995.1 .289 1.613 984.2 .295 4.80E+04 .299 4.54E+04 1019.6 4.73E+04 1028.3 1.689 . 305 1.689 1044.6 .309 4.50E+04 . 315 1.765 1037.4 4.70E+04 1.765 1.816 .315 .322 4.20E+04 4.41E+04 1034.1 1.816 1027.7 976.7 .321 4.44E+04 972.9 . 328 4.64E+04 1.867 1.867 .327 4.48E+04 1.918 984.2 1.918 979.1 . 335 4.65E+04 4.41E+04

1.994

2.070

1006.0

1023.0

. 345

. 354

4.58E+04

4.56E+04

	THE PARTY	Miles Anna A							
POINT SERIA	AL NO. 310	7.080 (TIME= 482.50 S	EC)	POINT SERIA	AL NO. 21	07.090	(TIME= 504	.50 SEC)
LOOP PRESSE	DRE(PE-3)		5.01 MPA		LOOP PRESSU	RE(PE-3)		4.98	MPA
FCV TIMPERA	ATURE (TE-FC)	V-11)	478.3 K		FCV TEMPERA	ATURE (TE-F	CV-11)	478.2	K
THE INLET E	NTHAL PY		8.770E+05 J/KG		LHP INLET E	NTHALPY		8.764E+05	J/KG
TEST SECTIO	IN:				TEST SECTIO	IN:			
PRESSI	IRE		-81 MPA		PRESSU	IRE		.80	MPA
SAT TE	MP		443.86 K		SAT TE	MP		443.78	K
MASS I	LUX		44.51 KG/S	EC-M##2	MASS F	LUX		44.67	KG/SEC-M**2
INLET	QUALITY		.076		INLET	QUALITY		.075	
INLET	ENTHALPY		8.770E+05 J/KG		INLET	ENTHALPY		8.764E+05	J/KG
QUENCH FROM	VI:		and the state of the state of		QUENCH FROM	IT:			
ELEVAT	FION		.853 M		ELEVAT	ION		.901	M
VELOCI	TY		.0022 M/SE	C	VELOCI	114		.0021	M/SEC
QUALIT	ſΥ		. 186		QUALIT	Y		. 192	
NET LHP POP	VER TO FLUII	0	0.0 W	C	NET LHP POW	ER TO FLU	HD.	0.0	W
VAPOR TEMPI	ERATURE MEA	SUREMENT	LOCATION INFOR		VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMATION
ELEVATION	DZQF	IV	XE XA		ELEVATION	DZQF	14	XE XA	
(M)	(M)	(K)	XE XA		(M)	(M)	(K)		
1.841	.988	769.8 .	325 , 241		1.537	.636	656.8	.284 .233	
WALL TEMPER	RATURE MEAS	UREMENT L	OCATION INFORM	IATION	WALL TEMPER	RATURE MEA	SUREMENT	LOCATION I	NEORMATION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX HEAT LOSS
(M)	(K)		W/M##2	M/W##5	(M)	(K)		W/M	**5 M/W**5
.013	441.6	.077	4.30E+04		.013	441.6	.077	4.31	E+04
.051	451.0	.082	4.31E+04		.051	450.9	.082	4.32	E+04
.063	449.8	.083	4.31E+04		.063	449.8	.083	4.31	E+04
.089	454.1	.086	4.31E+04		.089	453.9	.086	4.32	E+04
. 114	451.1	.089	4.31E+04		. 114	450.8	.089	4.34	E+04
. 140	450.7	.092	4.31E+04		. 140	450.6	.092	4.32	E+04
.165	451.0	.096	4.31E+04		. 165	450.9	.095	4.32	E+04
.317	450.6	. 114	4.30E+04		. 317	450.4	. 114	4.32	E+04
. 394	452.2	. 123	4.31E+04		. 394	451.8	. 123	4,32	E+04
.470	457.2	.132	4.34E+04		,470	456.3	. 132	4.35	E+04
.546	458.8	. 141	4.368+04		.546	457.4	. 142	4.36	E+04
.622	454.3	. 151	4.35E+04		.622	453.1	. 151	4.35	E+04
.698	471.5	. 160	4.508+04		598	467.1	. 160	4.45	E+04
.775	482.3	.170	5.02E+04		. 775	471.7	.170	4.58	E+04
.851	686.2	. 185	8.89E+04		.851	504.4	. 182	6.46	E+04
.927	887.7	.201	5.95E+04		.927	802.5	. 197	8.40	E+04
1.003	914.6	.213	5.19E+04		1.003	897.6	.212	5.22	E+04
1.067	876.3	,222	4.73E+04	1.91E+03	1.067	865.2	,221	4.88	£ +()4
1.156	932.1	.234	4.83E+04	8.751+02	1.156	920.7	,233	4.89	E+U4
1.232	881.7	, 244	4.68E+04		1.232	869.9	.243	4.63	E+()4
1.257	898.0	.247	5.01E+04		1,257	885.9	.247	4.97	£ +()4
1.321	929.2	250	4.85E+04		1.321	919.8	. 255	4.85	E+04
1.384	984.7	.265	4.881+04		1.384	974.9	. 264	4.86	E +04
1.460	1006.1	.275	4.83E+04		1.460	997.4	.274	4.82	E+04
1.511	997.9	. 282	4.54E+04		1.511	989.4	.281	4.53	E+04
1.062	991.0	.288	4.828+04		1.502	943.7	.288	4.82	E+04
1.013	1010 6	.295	4.808.104		1.013	1013 6	. 294	4.79	E+04
	1079.6	. 305	4.731+04		1.089	1013.4	. 304	4.71	E+04
1.689	1115 5 . 61	.315	4.701.404		1.700	1031.9	. 314	4.68	E+04
1.689	1027 7				1,010	1022.0	. 321	4.38	
1.689 1.765 1.816	1027.7	. 322	h 605+00		1 967	0/0 0	202	4 64	EAON
1.689 1.765 1.816 1.867	1027.7 972.9	.328	4.64E+04		1.867	968.8	. 327	4.64	E+04
1.689 1.765 1.816 1.867 1.918	1027.7 972.9 979.1	.328	4.64E+04 4.65E+04		1.867 1.918	968.8 975.5	.327	4.64	E+04 E+04
1.689 1.765 1.816 1.867 1.918 1.994	1027.7 972.9 979.1 1006.0	.328	4.64E+04 4.65E+04 4.58E+04	1.91E+03 8.75E+02	1.867 1.918 1.994	968.8 975.5 1003.1	.327	4.64 4.62 4.56	E+04 E+04 E+04

POINT SERIAL	NO. 310	7.090 (TI	IME= 505.50 SEC	C)	POINT SER	IAL NO. 21	107.100	(TIME= 53	4.50 SEC	
LOOP PRESSUE	RELPE-31		5.03 MPA		LOOP PRESS	SURE(PE-3)		5.0	1 MPA	
FCV TEMPERAT	URECTE-FC	V-1T)	478.2 K		FCV TEMPER	RATURE (TE-	CV-1T1	477.	9 K	
LHP INLET EN	THALPY	8.	764E+05 J/KG		LHP INLET	ENTHALPY		8.751E+0	5 J/KG	
TEST SECTION	1:				TEST SECT	ION:				
PRESSUE	RE		.80 MPA		PRESS	SURE		. 8	1 MPA	
SAT TEN	1P		443.79 K		SAT	TEMP		443.9	2 K	
MASS FI	UX		44.63 KG/SE	C-M##2	MASS	FLUX		24.24.24	1 KG/SEC	C-M##2
INLET C	VILIAU		.075		INLET	T QUALITY		.07	5	
INLET	NTHALPY	8.	.764E+05 J/KG		INLE	I ENTHALPY		8.751E+0	5 J/KG	
QUENCH FRONT	:				QUENCH FRO	ONT:				
ELEVAT	ON		.903 M		ELEVA	ATION		. 96	4 M	
VELOCIT	Y		.0021 M/SEC		VELOC	CITY		.002	1 M/SEC	
QUALITY	1		, 192		QUAL	ITY		. 19	9	
NET LHP POWE	R TO FLUI	D	0.0 W		NET LHP PO	OWER TO FLE	HD	0.	0 M	
VAPOR TEMPER	RATURE MEA	SUREMENT LO	OCATION INFORMA	ATION	VAPOR TEM	PERATURE ME	ASUREMENT	LOCATION	INFORMA	ATION
ELEVATION	DZQF	TV XE	XA		ELEVATION	DZQF	IV	XE XA		
(M)	(M)	(K)			(M)	(M)	(K)			
1.841	.938	750.5 ,32	24 .245		1.537	.573	639.5	.281 .23	3	
WALL TEMPERA	TURE MEAS	UREMENT LOC	CATION INFORMAT	TION	WALL TEMPE	ERATURE MEA	SUREMENT	LOCATION	INFORMA	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEA	T FLUX	HEAT LOSS
(M)	(K)		M/W##5	M/W##2	(M)	(K)		W/	M**5	W/M**2
.013	441.6	.077	4.31E+04		.013	441.5	.076	4.3	0E+04	
.051	450.9	.082	4.32E+04		.051	450.7	.081	4.3	1E+04	
.063	449.8	.083	4.31E+04		.063	449.7	.082	4.3	1E+04	
.089	453.9	.086	4.31E+04		.089	453.5	.085	4.3	2E+04	
.114	450.7	.089	4.34E+04		.114	450.4	.089	4.2	9E+04	
. 140	450.6	.092	4.31E+04		. 140	450.4	.092	4.3	11+04	
. 165	450.9	.095	4.32E+04		. 165	450.7	.095	4.3	1E+04	
. 317	450.4	.114	4.32E+04		. 317	450.1	. 113	4.3	2E+04	
. 394	451.8	. 123	4.32E+04		. 394	451.2	. 122	4.3	1E+04	
.470	456.2	.132	4.34E+04		.470	454.9	. 132	4.3	4E+04	
.546	457.4	. 141	4.36E+04		.546	455.7	. 141	4.3	DE+04	
,622	453.0	. 151	4.34E+04		.622	451.7	. 150	4.3	46+04	
776	400.9	. 160	4.446+04		.098	462.8	. 159	4.4	DE+04	
961	501.5	191	6 355404		061	403.0	179	4.4	4E+04	
027	700 1	107	0.325+04		027	607 7	101	7.0	05+04	
1 003	896.7	212	5 225+04		1 003	863 8	207	7 3	6E+04	
1 067	86h 7	221	h *88E+04		1.067	851 3	218	1.0	3 E + O/I	
1.156	920 2	233	h 89F+04		1 156	907.3	230	4.9	6E+0h	
1 232	869.4	243	h 63E+04		1 232	856 3	240	4.5	7F+04	
1.257	885.3	246	4 98F+04		1 257	872 6	243	11 9	OF+Oh	
1.321	919.3	.255	4-86E+04		1.321	908.4	252	4.8	2F+04	
1.384	974.5	.264	4.87E+04		1.384	962.9	261	4.8	3F+04	
1,460	997.0	.274	4.83E+04		1.460	987.1	.271	4.7	9F+04	
1.511	989.0	.281	4.54E+04		1,511	979.7	.278	0.5	1E+04	
1.562	943.2	.287	4.83E+04		1,562	935.5	. 284	4.7	2E+04	
1.613	976.5	.294	4.79E+04		1.613	968.9	.291	4.7	3E+04	
1.689	1013.1	. 304	4.72E+04		1.689	1007.0	. 301	4.6	9E+04	
1.765	1031.6	. 314	4.69E+04		1.765	1026.8	.311	4.6	3E+04	
1.816	1022.6	.321	4.39E+04		1.81ó	1018.2	.317	4.3	5E+04	
2 077	968.5	. 327	4.65E+04		1.867	964.6	. 324	4.6	0E+04	
1.867		224	h 625 AOh		1 019	972 5	330	4.6	0F+0h	
1.918	975.3	. 334	4.036104		1.910	2000			17 ()-4	
POINT SERIAL LOOP PRESSUF FCV TEMPERAT LHP INLET EN TEST SECTION PRESSUF SAT TEM MASS FI INLET CUENCH FRONT CLEVATION (M) 1.841 WALL TEMPERA ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.384 1.460 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.994 2.070	975.3	. 344	4.57E+04		1.994	1000.5	. 340	4.5	4E+04	

INEL POST-CHE EXPERIMENT NO. 107 INEL POST-CHE EXPERIMENT NO. 107 POINT SERIAL NO. 3107.100 (TIME= 535.50 SEC) POINT SERIAL NO. 3107.110 (TIME= 556.50 SEC) FOUR PRESSURE(PE-3)

FCV IEMPERATURE(TE-FCV-IT)

LHP INLET ENTHALPY

TEST SECTION:

4.99 MPA

478.0 K

8.754E+05 J/KG 4.98 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-11) 4.77.9 K LHP INLET ENTHALPY 8.751E+05 J/KG TEST SECTION: TEST SECTION: SECTION:
PRESSURE
SAT TEMP
MASS FLUX
INLET QUALITY
INLET ENTHALPY

.81 MPA
443.92 K
443.92 K
44.32 KG/SEC-M**2
.075
.075
.075 .81 MPA 443.91 K 44.41 KG/SEG-M**2 .075 8.751E+05 J/KG .81 MPA PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .966 M ELEVATION 1,008 M VELOCITY .0020 M/SEC VELOCITY .0020 M/SEC . 199 QUALITY .204 QUALITY 0.0 W NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.841 .876 744.4 .320 .244 1.841 .833 728.8 .325 .250 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) (K) (M) (K) W/M##2 W/M##2 .013 .013 441.5 .076 4.30E+04 441.7 .076 4.30E+04 .081 .051 450.7 .081 4.31E+04 .051 450.6 4.32E+04 4.31E+04 4.31E+04 .063 449.7 .082 .063 449.7 4.32E+04 .082 .085 .089 453.5 .089 453.5 .086 4.31E+04 .114 4.29E+04 .114 450.4 .088 450.8 .089 4.32E+04 . 140 .092 .140 450.4 .092 4.31E+04 450.4 4.31E+04 . 165 . 165 450.7 .095 4.31E+04 450.7 .095 4.32E+04 .317 450.1 .113 4.32E+04 .317 450.0 .113 4.32E+04 4.31E+04 . 394 451.2 .122 . 394 451.1 .123 4.32E+04 .131 .470 454.3 .470 454.8 4.33E+04 . 132 4.32E+04 . 141 .546 . 141 .546 455.7 4.35E+04 455.0 4.33E+04 . 150 . 150 .622 451.6 4.34E+04 .622 451.1 4.33E+04 . 159 .698 462.7 4.40E+04 .698 460.7 . 160 4.38E+04 .169 4.44 E+04 .775 .775 463.6 460.8 . 169 4.40E+04 .178 .851 .179 4.60E+04 .851 476.1 469.8 4.49E+04 7.16E+04 7.44E+04 4.95E+04 4.86E+04 4.58E+04 . 191 . 189 .927 540.4 .927 495.8 4.91E+04 ,207 1,003 .203 1.003 860.3 684.0 8.43E+04 850.8 1.067 .218 1.067 832.6 .216 6.10E+04 5.09E+04 1.150 906.7 .230 1.156 894.1 .230 5.00E+04 .240 .241 855.8 1.232 842.5 1,232 4.90E+04 .244 872.0 . 243 1.257 1.257 857.8 5.28E+04 .252 4.82E+04 908.0 1.321 1.321 897.4 .254 5.01E+04 4.83E+04 1.384 962.5 .261 1.384 951.4 .263 5.02E+04 .271 4.79E+04 .273 1,460 986.7 1,460 976.6 4.96E+04 979.3 .277 4.50E+04 .280 1.511 1.511 969.0 4.73E+04 .284 935.2 4.70E+04 926.6 1.562 1.562 .287 4.98E+04 .291 4.72E+04 1.613 968.6 1.613 959.6 .294 4.96E+04 4.68E+04 . 305 1.689 1006.7 .301 1.689 998.7 4.91E+04

1.765

1.816

1.867

1.918

1.994

2.070

.315

.322

.329

.335

. 346

. 356

4.84E+04

4.53E+04

4.81E+04

4.81E+04

4.72E+04

4.70E+04

1019.8

1011.6

958.7

966.5

996.1

1014.7

4.64E+04

4.33E+04

4.60E+04

4.58E+04

4.54E+04

4.52E+04

1026.6

1018.0

964.4

972.3

1000.3

1018.6

1.765

1.816

1.867

1.918

1.994

2.070

.311

.317

.323

.330

. 340

1007.4

.368

INEL POST-CHE EXPERIMENT NO. 107

4.81E+04

POINT SERIAL NO. 3107.130 (TIME= 600.50 SEC) POINT SERIAL NO. 3107.120 (TIME= 577.50 SEC) LOOP PRESSURE(PE-3) 5.05 MPA LOOP PRESSURE(PE-3) 5.00 MPA CV TEMPERATURE (TE-FCV-1T) 478.0 K FCV TEMPERATURE (TE-FCV-1T) 478.1 K 8.757E+05 J/KG THP INLET ENTHALPY 8.759E+05 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .81 MPA PRESSURE .80 MPA PRESSURE 443.93 K SAT TEMP 443.81 K SAT TEMP 44.30 KG/SEC-M**2 44.35 KG/SEC-M**2 MASS FLUX MASS FLUX .075 INLET QUALITY INLET QUALITY .075 INLET ENTHALPY 8.757£+05 J/KG INLET ENTHALPY 8.759E+05 J/KG QUENCH FRONT: QUENCH FRONT: 1.119 M 1.056 M ELEVATION ELEVATION VELOCITY .0047 M/SEC .0026 M/SEC VELOCITY QUALITY .221 .211 QUALITY NET LHP POWER TO FLUID 0.0 W NET LIIP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA ELEVATION DZQF IV XE XA (K) (M) (M) (K) (M) (M) .723 1.841 682.8 .348 .277 1.841 . 786 702.9 .337 .264 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION XE W/M**2 W/M##2 W/M##2 W/M##2 (K) (M) (K) (M) .013 442.1 4.31E+04 .013 .076 4.31E+04 442.0 .077 .051 450.7 .081 4.32E+04 .051 450.7 .081 4.33E+04 449.7 .083 4.32E+04 .063 449.7 .083 4.33E+04 .063 .089 453.6 .086 4.33E+04 .086 4.33E+04 .089 453.6 .089 4.33E+04 . 114 450.9 .089 4.32E+04 450.9 .114 . 140 .092 4.34E+04 . 140 450.4 .092 4.33E+04 450.5 . 165 .095 450.7 .095 4.33E+04 . 165 450.7 4.32E+04 4.33E+04 .317 449.7 . 114 4.32E+04 . 317 449.8 . 114 . 394 451.0 .123 4.33E+04 450.9 . 123 4.33E+04 . 394 .470 454.0 .132 4.35E+04 .470 453.6 .132 4.36E+04 .546 454.5 .142 4.35E+04 .546 454.1 .142 4.36E+04 . 151 4.34E+04 .622 450.6 . 151 4.35E+04 .622 450.8 4.37E+04 .698 . 160 .698 459.4 . 160 458.6 4.38E+04 .170 .775 459.1 .170 4.38E+04 .775 458.2 4.40E+04 .851 465.8 .179 4.47E+04 .851 463.5 .179 4.46E+04 .927 484.2 . 189 4.65E+04 .927 479.1 . 180 4.60E+04 468.9 1.003 489.5 .200 6.08E+04 1.003 . 199 4.70E+04 .213 8.26E+04 1.067 617.8 .211 8.93E+04 1.067 772.4 1,156 .228 1.156 876.6 .230 5.31E+04 864.0 4.89E+04 1.232 730.3 .242 .243 6.57E+04 1.232 807.4 8.36E+04 .251 804.6 .249 9.37E+04 1.257 614.7 1.61E+05 1.257 .262 1.321 881.1 5.37E+04 1.321 367.5 .271 5.75E+04 1.384 935.9 .271 5.30E+04 1.384 924.1 .281 5.47E+04 .282 5.13E+04 1.460 953.7 .292 5.23E+04 1.460 963.2 .290 4.95E+04 942.4 .299 1.511 953.6 1.511 5.07E+04 .297 5.64E+04 890.1 907.8 1.562 .308 6.20E+04 1.562 1.613 945.5 . 305 5.18E+04 1.613 934.9 .316 5.26E+04 .316 5.09E+04 977.3 .327 1.689 986.3 1.689 5.13E+04 .327 1.765 1009.1 4.98E+04 1.765 1001.6 . 338 4.99E+04 . 334 . 345 1.816 1001.8 4.65E+04 1.816 995.1 4.64E+04 1.867 949.0 . 341 4.93E+04 1.867 942.1 . 351 4.90E+04 . 348 957.1 4.90E+04 1.918 1.918 950.7 . 358 4.82E+04 4.85E+04 1.994 988.5 .358 1.994 982.8 . 369 4.84E+04

2.070

1002.2

.379

4.77E+04

			23038.7 2837. 23686			******	AT SHIP EAST.	CHITTE !	100	
POINT SERIA	L NO. 1108.0	060 (11	ME= 232.50 SEC)	POINT SERIA	L NO. 11	108.070	(TIME= 2	55.50 SEC	C)
LOOP PRESSU	RE(PE-3)		5.01 MPA	-M**2	LOOP PRESSU	RE(PE-3)		5.0	3 MPA	
FCV TEMPERA	TURE (TE-FCY-1	11)	478.8 K		FCV TEMPERA	TURE (TE-1	CV-11)	478	.8 K	
THE INTEL	NTHALPY	8.	793E+05 J/KG		LHP INLET E	NTHALPY		8.792E+	05 J/KG	
TEST SECTIO	N:				TEST SECTIO	N:				
PRESSU	RE		.81 MPA		PRESSU	RE			31 MPA	
SAI II	MP		443.90 K		SAT TE	MP		443.1	33 K	
MASS F	LUX		61.84 KG/SEC	-M**2	MASS F	LUX		61.	O KG/SEC	C-M**2
INLET	CHALLIY		.011		INLET	QUALITY		.0	//	
OUTERCH FROM	ENIHALPY	8.	193E+05 J/KG		INLET	ENTHALPY		8.792E+	15 J/KG	
FLEVAT	LON		500 M		QUENCH FROM	1.000			16 W	
VELOCI	TY		0030 M/SEC		VELOCI	IUN		.00	TO MISEC	
QUALIT	Y		156		OUALLI	V		.00	67 H/ SEC	
NET LHP POW	ER TO FLUID		0.0 W		NET LHP POW	ER TO FLU	110	0	.0 W	
VAPOR TEMPE	RATURE MEASUE	REMENT LO	CATION INFORMA	TION	VAPOR TEMPE	RATURE ME	ASUREMENT	LCCATIO	N INFORM	ATION
ELEVATION	DZQF TY	/ XE	XA		ELEVATION	DZQF	IV	XE X	A	
(M)	(M) (F	()		TION	(M)	(M)	(K)			
1.232	.683 652	2,4 .25	6 .209	HEAT LOSS W/M**2	1.232	.606	627.6	.260 .2	17	
WALL TEMPER	ATURE MEASURE	EMENT LOC	ATION INFORMAT	ION	WALL TEMPER	ATURE MEA	SUREMENT	LOCATION	INFORMA	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)		W	/M##5	M/Ww#5
.013	444.1	.078	6.49E+04		,013	444.2	.078	6.1	48E+04	
.051	455.8	.083	6.53E+04		.051	455.1	.083	6.	54E+04	
.063	454.7	.085	6.531 04		.063	454.1	.085	6.	54E+04	
.089	460.8	.089	6.55E+04		.089	459.7	.088	6.5	55E+04	
. 114	455.7	.092	6.55E+04		. 114	454.8	.092	6.	55E+04	
. 140	454.8	.095	6.54E+04		. 140	454.4	.095	6.	53E+011	
.105	400.0	.099	6.53E+04		. 165	456.0	.098	6.	53E+04	
300	672.0	120	6.39E+04		.31/	456.3	. 119	6.	16E+04	
h70	506.2	141	8 665+06		, 3 J45	400.5	. 129	6.6	54E+04	
546	726.2	155	1 075+05		546	485.3 518 h	. 139	0.	14E+04	
.622	919.3	171	9 725+04		622	677.6	166	8.	10E+05	
.698	957.8	. 184	7.59E+04		698	917 4	183	1	175 +05	
.775	983.4	. 196	7.38E+04		.775	961.1	198	7 1	15E+0h	
.851	1005.5	.207	7.25E+04		.851	988.1	209	7	52E+04	
.92	1020.4	.218	7.12E+04		.927	1006.3	.221	7.	37E+04	
1.003	1033.3	.229	7.03E+04		1.003	1021.5	. 232	7.3	27E+04	
1.067	972.8	.237	6.22E+04	4.91E+03	1.067	966.8	. 241	6.	0E+04	4.45E+03
1.156	1026.0	.249	6.548+04	1.80E+03	1.156	1020.4	. 253	6.8	31E+04	1.48E+03
1.232	962.4	-259	6.38E+04		1.232	957.0	. 263	6.	59E+04	
1 221	965.9	.202	6.89E+04		1.257	958.4	. 266	7.0	16E+04	
1 38/4	1053.6	279	6 755+04		1.321	983.6	.275	6.5	12E+04	
1.460	1071 3	290	6. FOE+0h		1.384	1048.8	. 284	6.5	75E+04	
1.511	1029 9	296	6 28F+0h		1.400	1007.6	. 295	6.0	19E+04	
1,562	450.7	. 303	6.575+04		1 562	hh9 3	. 302	0.4	125+04	
1.613	454.5	.310	6.58E+04		1 613	449.3	316	6.1	75+04	
1.689	463.5	.326	6.66E+04		1.689	460 1	325	6.	1E+04	
1.765	465.5	. 330	6.68E+04		1.765	461.4	335	6.4	53F+04	
1.816	459.8	. 337	6.24E+04		1.816	456.8	. 342	6.	BE+04	
1.867	489.1	. 343	6.97E+04		1.867	479.2	. 348	6	16E+04	
1.918	472.4	- 350	6.73E+04		1.918	467.2	. 355	6.6	6E+04	
1.994	537.4	. 361	7.51E+04		1.994	514.3	. 366	7.	4E+04	
2.070	539.2	.3/3	7.72E+04		2.070	512.9	.377	7.	9E+04	
							7.5			

.262

4.28E+04

4.03E+04

963.6

957.1

2.070

498.8

.382

6.98E+04

```
POINT SERIAL NO. 1108.080 (TIME= 275.50 SEC)
                                                                        POINT SERIAL NO. 1110.040 (TIME= 118.50 SEC)
LOOP PRESSURE(PE-3)
                                  4.99 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                            5.03 MPA
FCV TEMPERATURE (TE-FCV-11)
                                 478.8 K
                                                                        FCV TEMPERATURE (TE-FCV-1T)
                                                                                                           426.0 K
LHP INLET ENTHALPY
                              8.790E+05 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                       6.472E+05 J/KG
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                    .81 MPA
                                                                             PRESSURE
                                                                                                             .81 MPA
                                 443.87 K
     SAT TEMP
                                                                             SAT TEMP
                                                                                                          444.11 K
     MASS FLUX
                                61.62 KG/SEC-M**2
                                                                                                         50.59 KG/SEC-M**2
                                                                             MASS FLUX
     INLET QUALITY
                                   077
                                                                             INLET QUALITY
                                                                                                           -.037
     INLET ENTHALPY
                              8.790E+05 J/KG
                                                                             INLET ENTHALPY
                                                                                                       6.472E+05 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
     ELEVATION
                                   .702 M
                                                                             ELEVATION
                                                                                                            .322 M
     VELOCITY
                                  .0039 M/SEC
                                                                             VELOCITY
                                                                                                           .0070 M/SEC
                                 .179
     QUALITY
                                                                                                           .013
                                                                             QUALITY
NET LHP POWER TO FLUID
                                   0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                      TV
                              XE
                                  XA
                                                                        ELEVATION
                                                                                     DZQF
                                                                                              IV
                                                                                                      XE XA
 (M)
             (M)
                      (K)
                                                                          (M)
                                                                                     (M)
                                                                                              (K)
1.232
             .530
                     606.8
                             .265 .225
                                                                         1.232
                                                                                     .910
                                                                                             668.7 .156 .126
WALL EMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                      XE
                                HEAT FLUX
                                                HEAT LOSS
                                                                        ELEVATION
                                                                                      TEMP
                                                                                                 XE
                                                                                                            HEAT FLUX
                                                                                                                          HEAT LOSS
 (M)
              (K)
                                    W/M**2
                                                  W/M##2
                                                                                                             W/M**2
                                                                          (M)
                                                                                       (K)
                                                                                                                            W/M##2
  .013
              444.7
                         .078
                                   6.51E+04
                                                                          .013
                                                                                      460.4
                                                                                                -.036
                                                                                                            4.65E+04
  051
              454.7
                         .083
                                   6.54E+04
                                                                          .051
                                                                                      484.6
                                                                                                -.031
                                                                                                            5.27E+04
  .063
              453.6
                         .085
                                   6.54E+04
                                                                          .063
                                                                                      465.1
                                                                                                -.030
                                                                                                            4.61E+04
  .089
              458.9
                         .088
                                   6.55E+04
                                                                          .089
                                                                                      481.9
                                                                                                -.027
                                                                                                            4.89E+04
              454.1
  . 114
                         .092
                                   6.55E+04
                                                                          . 114
                                                                                      474.5
                                                                                                -. 024
                                                                                                            4.79E+04
 . 140
                         ,095
              454.1
                                   6.53E+04
                                                                          . 140
                                                                                      465.0
                                                                                                -.021
                                                                                                            4.87E+04
  . 165
              455.6
                         .098
                                   6.54E+04
                                                                          . 165
                                                                                      470.7
                                                                                                -.017
                                                                                                            6.34E+04
  .317
              455.4
                         .119
                                   5.56E+04
                                                                          .317
                                                                                      626.8
                                                                                                 .012
                                                                                                            9.30E+04
  .394
              463.7
                         .129
                                   6.61E+04
                                                                                                 .030
                                                                          . 394
                                                                                      793.8
                                                                                                            9.68E+04
  470
             477.0
                         .139
                                   6.76E+04
                                                                          .470
                                                                                      858.9
                                                                                                 .046
                                                                                                            7.39£+04
  -546
             492.2
                         . 150
                                   7.10E+04
                                                                          .546
                                                                                      890.9
                                                                                                 .060
                                                                                                            7.24E+04
  -622
             497.5
                         . 162
                                   8.85E+04
                                                                          .622
                                                                                      906.2
                                                                                                 .073
                                                                                                            6.95E+04
 .698
              734.6
                         .178
                                   1.26E+05
                                                                          .698
                                                                                      923.3
                                                                                                 .086
                                                                                                           6.78E+04
 .775
             917.2
                         . 197
                                   1,11E+05
                                                                          .775
                                                                                      937.6
                                                                                                 .099
                                                                                                            6.66E+04
 .851
             966.1
                         .211
                                   7.97E+04
                                                                          .851
                                                                                      954.6
                                                                                                            6.39E+04
                                                                                                 .111
  .927
             989.2
                         .223
                                   7.66E+04
                                                                          .927
                                                                                      960.5
                                                                                                 .123
                                                                                                            6.02E+04
 1.003
             1006.6
                         .235
                                   7.54E+04
                                                                         1.003
                                                                                      942.7
                                                                                                 . 133
                                                                                                           5.35E+04
 1.067
             957.6
                        .244
                                   6.76E+04
                                                 3.94E+03
                                                                         1.067
                                                                                      861.0
                                                                                                 . 141
                                                                                                            4.27E+04
                                                                                                                          9.21E+02
1.156
             1011.5
                         .257
                                   7.10E+04
                                                 8.21E+02
                                                                         1.156
                                                                                      916.8
                                                                                                 . 150
                                                                                                           4.416+04
                                                                                                                          1.04E+02
1.232
             949.2
                        .267
                                   6.73E+04
                                                                                      881.8
                                                                         1,232
                                                                                                           4.29E+04
                                                                                                 . 158
                        .271
1.257
             949.6
                                   7.16E+04
                                                                                      901.2
                                                                         1.257
                                                                                                 . 161
                                                                                                           4.70E+04
1.321
             977.6
                        .280
                                   7.06E+04
                                                                         1.321
                                                                                      927.0
                                                                                                 . 169
                                                                                                           4.71E+04
1.384
            1041.8
                        .289
                                   7.09E+04
                                                                         1.384
                                                                                      996.4
                                                                                                 . 176
                                                                                                           5.38E+04
1,460
             1061.6
                        .300
                                   7.03E+04
                                                                         1.460
                                                                                     1012.6
                                                                                                 .187
                                                                                                            5.45E+04
1.511
             1022.5
                        .307
                                   6.55E+04
                                                                         1.511
                                                                                     1008.4
                                                                                                 . 193
                                                                                                            5.24E+04
1.562
                        . 314
             452.3
                                   6.47E+04
                                                                         1.562
                                                                                     982.5
                                                                                                 .200
                                                                                                           5.70E+04
1.613
             451.4
                         .320
                                   6.55E+04
                                                                         1.613
                                                                                     1011.6
                                                                                                 .207
                                                                                                           5.421+04
1.689
             458.0
                        . 330
                                   6.58E+04
                                                                         1.689
                                                                                     1032.9
                                                                                                 .217
                                                                                                           5.26E+04
1.765
             459.1
                        . 341
                                   6.60E+04
                                                                         1.765
                                                                                     1036.3
                                                                                                 .227
                                                                                                           5.12E+04
1.816
             455.2
                        . 347
                                   6.15E+04
                                                                                     1024.4
                                                                         1.816
                                                                                                 .233
                                                                                                           4.83E+04
1.867
             474.2
                        . 354
                                   6.69E+04
                                                                                     977.5
                                                                         1.867
                                                                                                 .239
                                                                                                           5.208+04
1.918
             464.3
                        .361
                                   6.62E+04
                                                                         1.918
                                                                                      960.8
                                                                                                 .246
                                                                                                           4.62E+04
             501.0
1.994
                        .371
                                   6.96E+04
```

1.994

956.8

. 263

4.02E+04

```
POINT SERIAL NO. 3110.040 (TIME= 118.50 SEC)
POINT SERIAL NO. 2110.040 (TIME= 117.50 SEC)
                                                                   FCV TEMPERATURE(TE-FCV-1T) 5.03 MPA
426.0 K
LHP INLET ENTHALPY 6.472E+05 J/KG
                               4.97 MPA
100P PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-1T) 4.97 MP)
LHP INLET ENTHALPY 6.472E+05 J/KG
                                                                   TEST SECTION:
TEST SECTION:
                                                                                              444.11 K
50.59 KG/SEC-M**2
-.037
                                                                                                     .81 MPA
                         .81 MPA
444.10 K
50.63 KG/SEC-M**2
-.037
                               .81 MPA
                                                                        PRESSURE
    PRESSURE
    SAT TEMP
                                                                        SAT TEMP
                                                                        MASS FLUX
    MASS FLUX
                                                                        INLET QUALITY
    INLET QUALITY
                                                                        INLET QUALITY
INLET ENTHALPY
                    6.472E+05 J/KG
                                                                                             6.472E+05 J/KG
    INLET ENTHALPY
                                                                   QUENCH FRONT:
QUENCH FRONT:
    ELEVATION
                                .315 M
                                                                        ELEVATION
                                                                                                     .322 M
    VELOCITY
                             .0070 M/SEC
                                                                        VELOCITY
                                                                                                  .0070 M/SEC
                                                                                                   .013
    QUALITY
                             .013
                                                                        QUALITY
                                                                   NET LHP POWER TO FLUID
NET LHP POWER TO FLUID
                               0.0 W
                                                                                                     0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   ELEVATION DZQF
ELEVATION DZQF
                 TV
                         XE XA
                                                                                     IV
                                                                                             XE XA
            (M)
                    (K)
                                                                     (M)
                                                                               (M)
                                                                                        (K)
 (M)
                                                                    1.841 1.520 759.7 .233 .175
1.537
           1,222 712.8 ,194 ,151
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                            HEAT LOSS
                                                                   ELEVATION TEMP XE HEAT FLUX
                                                                                                                 HEAT LOSS
ELEVATION
           TEMP XE HEAT FLUX
                                                                                                     W/M##2
                                                                                                                   W/M##2
             (K)
                                 W/M**2
                                               W/M*#2
                                                                   (M)
                                                                                 (K)
 (M)
 .013
                                                                                 460.4
                                                                                          -.036
                                                                                                     4.65E+04
             461.0
                      -.036
                                4.67E+04
                                                                     .013
                                                                                484.6
                                                                                          -.031
 .051
             486.0
                      -.031
                                5.33E+04
                                                                     .051
                                                                                                     5.27E+04
                                                                     .063
                      -.030
                               4.63E+04
                                                                                 465.1
                                                                                          -.030
                                                                                                    4.51E+04
 .063
             465.6
 .089
                                                                                 481.9
                                                                                          -.027
                                                                                                    4.89E+04
             482.8
                      -.027
                                4.94E+04
                                                                     .089
                                                                     . 114
                      -.023
                                4.86E+04
                                                                                 474.5
                                                                                          -.024
                                                                                                    4.79E+04
 . 114
             475.3
                                                                     . 140
                                                                                                   4.87E+04
 . 140
                                4.97E+04
                                                                                 465.0
                                                                                          -.021
             465.9
                      -.020
                                                                                          -.017
                      -.017
                                                                                                    6.34E+04
                                6.74E+04
                                                                     . 165
                                                                                 470.7
 . 165
             471.9
                      .014
                                                                     .317
                                                                                          .012
                                9.43E+04
                                                                                 626.8
                                                                                                     9.30E+04
 .317
             665.7
                       .031
 .394
                                                                                           .030
             805.8
                                9.56E+04
                                                                     . 394
                                                                                 793.8
                                                                                                    9.68E+04
  .470
             862.4
                       .047
                                7.46E+04
                                                                     .470
                                                                                 858.9
                                                                                           .046
                                                                                                     7.39E+04
                                7.26E+04
                                                                                 890.9
                                                                                           .060
             894.1
                       .061
                                                                     .546
                                                                                                    7.24E+04
  .546
                       .074
                                                                     .622
                                                                                           .073
  .622
             909.1
                               6.98E+04
                                                                                 906.2
                                                                                                 6.95E+04
 .698
                       .087
                                                                     .698
                               6.79E+04
                                                                                 923.3
                                                                                           .086
             926.0
                                                                                                     6.78E+04
                                                                                           .099
 .775
             940.1
                       . 100
                               6.66E+04
                                                                     .775
                                                                                937.6
                                                                                                 6.66E+04
                       .112
                                                                                954.6
 .851
                               6.37E+04
             956.8
                                                                     .851
                                                                                           . 111
                                                                                                    6.39E+04
                       . 124
                                                                     .927
                                                                                           .123
                               6.01E+04
 .927
             962.3
                                                                                 960.5
                                                                                                    6.02E+04
                                                                                           . 133
                       . 134
                               5.32E+04
4.25E+04
 1.003
             943.8
                                                                    1.003
                                                                                 942.7
                                                                                                    5.35E+04
                                                                                           . 141
 1.067
             861.0
                       .142
                                              8.97E+02
                                                                    1.067
                                                                                 861.0
                                                                                                    4.271+04
                                                                                                                  9.21E+02
 1.156
                               4.39E+04
                       . 151
                                              1.60E+02
                                                                    1.156
                                                                                910.8
             910.8
                                                                                           . 150
                                                                                                    4.41E+04
                                                                                                                   1.04E+02
                       . 159
 1.232
             882.0
                                4.27E+04
                                                                    1.232
                                                                                                    4.29E+04
                                                                                 881.8
                                                                                           . 158
                       .162
                                4.69E+04
                                                                    1.257
                                                                                           . 161
 1,257
             901.5
                                                                                 901.2
                                                                                                    4.70E+04
                                                                                                     4.71E+04
 1.321
             927.4
                       . 170
                                4.71E+04
                                                                    1.321
                                                                                927.0
                                                                                           . 169
                       .177
             997.5
                                5.38E+04
                                                                    1.384
 1.384
                                                                                996.4
                                                                                           .176
                                                                                                    5.38E+04
                       . 188
 1.460
            1013.8
                                5.45E+04
                                                                    1.460
                                                                                1012.6
                                                                                           . 187
                                                                                                    5.45E+04
            1009.6
                       . 194
                                5.24E+04
                                                                                           . 193
 1.511
                                                                    1.511
                                                                                1008.4
                                                                                                     5.24E+04
                                                                                           .200
 1.562
             983.9
                       .201
                                 5.71E+04
                                                                    1.562
                                                                                982.5
                                                                                                     5.70E+04
                                                                                           .207
 1.613
            1012.7
                       .208
                                5.43E+04
                                                                    1.613
                                                                                1011.6
                                                                                                     5.42E+04
                       .218
                                5.28E+04
 1.689
            1033.9
                                                                    1.689
                                                                                1032.9
                                                                                           .217
                                                                                                     5.26E+04
 1.765
            1037.1
                       .228
                               5.12E+04
                                                                    1.765
                                                                                1036.3
                                                                                           .227
                                                                                                     5.12E+04
 1.816
            1025.3
                       .234
                               4.83E+04
                                                                                1024.4
                                                                    1.816
                                                                                           .233
                                                                                                    4.83E+04
 1.867
             978.4
                       .240
                                5.216+04
                                                                    1.867
                                                                                977.5
                                                                                           .239
                                                                                                     5.20E+04
                       .247
 1.918
             961.1
                                4.63E+04
                                                                    1.918
                                                                                960.8
                                                                                           .246
                                                                                                     4.62E+04
 1.994
             963.5
                       .255
                                4.28E+04
                                                                    1.994
                                                                                           .254
                                                                                963.6
                                                                                                     4.28E+04
```

2.070

957.1

.262

4.03E+04

960.4

INEL POST-CHE EXPERIMENT NO. 110 POINT SERIAL NO. 1110.050 (TIME= 129.50 SEC) LOOP PRESSURE(PE-3) 5.01 MPA FCV TEMPERATURE (TE-FCV-1T) 426.1 K LHP INLET ENTHALPY 6.476E+05 J/KG TEST SECTION: PRESSURE .81 MPA SAT TEMP 444.16 K MASS FLUX 50.15 KG/SEC-M**2 INLET QUALITY -.037 INLET ENTHALPY 6.476E+05 J/KG QUENCH FRONT: ELEVATION .392 M VELOCITY .0059 M/SEC QUALITY .019 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .840 647.3 .149 .122

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/Ma+5	W/M**2
.013	455.4	036	4.51E+04	
.051	473.1	031	4.82E+,4	
.063	460.9	030	4.46E+04	
.089	474.8	027	4.611+04	
. 114	468.6	024	4.53E+04	
. 140	459.3	021	4.47E+04	
. 165	463.3	018	4.56E+04	
.317	526.7	.004	7.27E+04	
. 394	665.2	.020	9.16E+04	
.470	818.0	.037	9.16E+04	
.546	857.9	.052	6.86E+04	
.622	876.8	.065	6.55E+04	
.698	894.7	.077	6.58F+04	
.775	910.8	.089	6.42E+04	
.851	930.7	. 101	6.28E+C4	
.927	940.5	. 113	6.06E+04	
1.003	929.3	. 124	5.58E+04	
1.067	858.9	.132	4.51E+04	1.55E+03
1.156	908.3	.142	4.68E+04	
1.232	878.4	. 151	4.47E+04	
1.257	896.0	. 154	4.88E+04	
1,321	921.6	. 162	4.89E+04	
1.384	984.1	.170	5.40E+04	
1.460	999.4	. 180	5.51E+04	
1.511	994.2	. 187	5.36E+04	
1.562	965.5	. 194	6.16E+04	
1.613	999.1	.202	5.46E+04	
1.689	1022.3	.212	5.30E+04	
1.765	1027.2	.222	5.16E+04	
1.816	1015.3	228	4.90E+04	
1.867	967.8	.234	5.15E+04	
1.918	957.5	.241	4.66E+04	
1.994	964.1	.249	4.38E+04	

.257

4.15E+04

	INEL POS	T-CHF EXP	ERIMENT NO. 110	
POINT SER	IAL NO. 31	10.050	(TIME= 129.50 SEC	:)
LOOP PRES	SURE(PE-3)		5.01 MPA	
	RATURELTE-F	CV-11)	426.1 K	
	ENTHALPY		6.476E+05 J/KG	
TEST SECT				
PRES	SURE		.81 MPA	
SAT	TEMP		444.16 K	
MASS	FLUX		50.15 KG/SEG	-M**2
	T QUALITY		037	
Name and Administration of the Control of the Contr	T ENTHALPY		6.476E+05 J/KG	
QUENCH FR				
	ATION		.392 M	
VELO			.0059 M/SEC	
QUAL			.019	
NET CHP P	OWER TO FLU	10	0.0 W	
			LOCATION INFORMA	TION
ELEVATION			XE XA	
(M)	(M)	(K)		
1.841	1.450	735.0	.231 .177	
WALL TEMPI	ERATUFE MEA	SUREMENT L	OCATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	455.4	036	4.51E+04	
.051	473.1	031	4.82E+04	
.063	160.9	030	4.46E+94	
.089	474.8		4.61E+04	
. 114	468.6	024	4.536+04	
. 140	459.3	021	4.47E+04	
.165	463.3 526.7	018	4.56E+04	
.394	665.2	.004	7.27E+04	
.470	818.0		9.16E+04 9.16E+04	
.546	857.9	.052	6.86E+09	
.622	876.8	.065	6.55E+04	
.698	894.7	.077	6.58E+04	
.775	910.8	.089	6.42E+04	
. 851	930.7	. 101	6.28E+04	
.927	940.5	. 113	6.06E+04	
1.003	929.3	. 124	5.58E+04	
1.067	858.9	.132	4.51E+04	1.55E+03
1.156	908.3	. 142	4.68E+04	
1.232	378.4	. 151	4.47E+04	
1.257	896.0	. 154	4.88E+04	
1.321	921.6	. 162	4.89E+04	
1.384	984.1	. 170	5.40E+04	
1.460	999.4	. 180	5.51E+04	
1.562	965.5	.187	5.36E+04	
1.613	999.1	. 202	6.16E+04 5.46E+04	
1.689	1022.3	.212	5.30E+04	
1 765	1027 3	222	5.306704	

1.765

1.816

1.867

1.918

1.994

2.070

1027.2

1015.3

967.8

957.5

964.1

960.4

.222

.228

234

.241

.249

.257

5.16E+04

4.90E+04

5.15E+04

4.66E+04

4.38E+04

4.15E+04

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INEL POSI-CHI EXPERIMENT NO. 110	POINT SERIAL NO. 3110.061 (TIME= 144.50 SEC)	2 1 EMP 2 E - 3 J 2 E (T E - F 3 L PY	ST PRESSURE ST MPA	QUENCH FRONT: ELEVATION .0051 M/SEC QUALITY OLO W OLD POWER TO FLUID 0.0 W	TEMPERA RRED VAP	4) (M) (K)	MEASUREMENT LOCATION INF	2W/H	451.6035 4.38t 464.9031 4.53t	457.8030	163.9 024 4.46E	459.1019 4.39E	473.1001	670.7 ,026 1.016	815.1 .043 7.928	862.0 .068	900.5 .079 5.998	913.9 .102 5.896	851.7 .121 4.60E	901.6 .131 4.82E+04 871.0 .140 h.58F+0h	887.9 .143 4.846	967.4159	981.9 . 169 5.378	829.0 .191 1.75£	973.4 .207 8.546	1012.7 .231 5.47E	1000.6	1.918 952.0 .251 4.82£+04 1.994 962.8 .260 4.54£+04	962.5 .268 4.35E
011	SEC.)		SEC-M**2	9	INFORMATION		MEAT LOSS W/M**2											2 196+01											
AFERIMENT NO. 1	TIME= 144.50 SE	5.04 MPA 426.2 K 6.480E+05 J/KG	.81 MPA 444.10 K 50.13 KG/SE 037 6.480E+05 J/KG	.0051 M/SEC .027 .027 W	LOCATION INFOR	138 .114	OCATION INFORMAT HEAT FLUX W/M**2	4.386+04	4.376+04	4.468+04	4.368+04	4.881+04		926		366	898		82E	845		376	1.75£+05	. 54E	476		4,826+04		
real-car tare	110.060 (fCV-11)		FLUID	ASUPEMENT TV (K)	637.5	ASUREMENT L	035	030	+20	021	001	.026	.043	000.	070.	201.	.113	. 131	. 143	151	691.	191.	.207	.231	.238	.251	.268	
INCL TO	SERIAL NO. 1	PRESSURE(PE-3) TEMPERATURE(TE- INLET ENTHALPY SECTION:	SSURE TEMP S FLUX ET QUALITY T ENTHALPY	ATTION CITY ITY OWER TO	MPERATURE ME IN DZQF (M)	.758	RATURE ME TEMP (K)	451.6	457.8	463.9	459.1	473.1	670.7	815.1	862.0	880.3	913.9	851.7	901.6	887.9	912.5	981.9	829.0	973.4	1012.7	1000.6	952.0	962.5	
	POINT SE	LUOP PRES FCV TEMPE LHP INLE	N J		VAPOR TEM ELEVATION (M)	1.232	MALL TEMPE ELEVATION (M)	.013	.063	. 114	. 165	317	.470	546	869.	.775					35.13	(6)					1.918	9 8	

4.92E+04

4.70E+04

1.994

2.070

957.4

960.4

.274

.283

POINT SERIAL NO. 1111.010 (TIME= 227.50 SEC) POINT SERIAL NO. 1110.070 (TIME= 159.50 SEC) 12.01 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 4.99 MPA ICV TEMPERATURE(IE-FCV-1T) 564.9 K FCV TEMPERATURE (TE-FCV-1T) 426.2 K 1.296E+06 J/KG 6.483E+05 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: . 34 MPA PRESSURE PRESSURE .81 MPA 411.47 K SAT TEMP 444.12 K SAT TEMP 18.88 KG/SEC-M**2 50.16 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY . 332 INLET QUALITY -.037 1.296E+06 J/KG INLET ENTHALPY INLET ENTHALPY 6.483E+05 J/KG QUENCH FRONT: QUENCH FRONT: .283 M ELEVATION ELEVATION .547 M VELOCITY .0018 M/SEC VELOCITY .0047 M/SEC QUALITY . 366 QUALITY. .034 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LUCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (K) (M) 1.232 .949 687.5 .495 .391 1.232 .685 628.3 .131 .109 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS HEAT LOSS ELEVATION TEMP XE ELEVATION TEMP XE HEAT FLUX W/M**2 W/M**2 W/M##2 W/M##2 (M) (K) (M) (K) 425.2 1.46E+04 .013 . 333 .013 449.3 -. 035 4.35E+04 1.48E+04 .051 428.8 .337 -.031 4.41E+04 .051 460.7 1.47E+04 -.030 4.33E+04 .063 425.9 .338 .063 455.9 .089 -.027 4.40E+04 .089 435.1 .340 1.48E+04 466.0 . 343 429.0 1.51E+04 . 114 .114 460.7 -.024 4.40E+04 . 345 . 140 426.2 1.47E+04 -.022 4.32E+04 . 140 454.7 -.019 . 165 427.8 . 347 1.505+04 457.0 4.33E+04 . 165 . 317 3.50E+04 464.7 -.002 4.54E+04 .317 753.0 . 371 . 394 817.5 . 386 2.52E+04 485.2 .007 4.68E+04 . 394 .398 .018 .470 853.9 2.48E+04 7.55E+04 .470 525.1 .034 8.83E+04 .546 883.0 .409 2.47E+04 .546 684.6 .050 7.67E+04 .622 900.8 .421 2.40£+04 .622 815.1 .698 .062 5.77E+04 .698 920.3 .432 2.34E+04 836.3 .073 5.83F+04 .775 933.7 . 443 2.29E+04 .775 855.0 5.885+04 .851 945.0 .454 2.17E+04 .851 873.6 .084 5.625+04 .095 .927 947.0 . 464 2.12E+04 .927 891.3 1.003 893.4 .106 5.36E+04 1,003 929.2 . 474 1.92E+04 1.067 842.8 .113 4.60E+04 2.69E+03 1.067 849.0 .481 1.57E+04 8.87E+02 4.87E+04 1.37E+02 1.156 887.3 .490 1.61E+04 1.69E+02 1.156 893.1 . 124 . 133 4.57E+04 1.232 851.1 .497 1.58E+04 1.232 863.2 . 136 4.79E+04 1.257 865.4 .500 1.64E+04 1.257 880.7 1,321 903.0 . 143 4 98E+04 1.321 876.5 .507 1.76E+04 1.384 952.0 . 152 5.28E+04 1.384 941.1 -514 1.83E+04 966.8 . 162 5.25E+04 1.461 974.5 .523 1.90E+04 1.460 . 169 1.511 941.1 6.38E+04 1.511 974.8 .529 1.80E+04 . 184 1.562 592.8 1.68E+05 1.562 948.1 .535 1.89E+04 1.90E+04 1.613 824.8 .206 1.82E+05 1.613 967.2 .541 1.90E+04 1.689 973.4 .229 6.97E+04 1.689 996.5 .550 .559 1009.0 1.83E+04 1.765 990.9 .242 6.03E+04 1.765 979.0 .249 5.67E+04 1.816 994.5 .564 1.67£+04 1.816 .570 1.73E+04 1.867 934.1 .257 6.45E+04 1.867 954.5 943.9 .575 1.61E+04 1.918 941.0 .264 5.37E+04 1.918

1.994

2.070

944.9

928.3

.583

.589

1.55E+04

1.30E+04

2.070

945.0

928.1

.594

1.57E+04

1.29E+04

```
POINT SERIAL NO. 2111.010 (TIME= 225.50 SEC)
                                                                  POINT SERIAL NO. 3111.010 (TIME= 227.50 SEC)
LOOP PRESSURE (PE-3)
                              12.00 MPA
                                                                  LOOP PRESSURE(PE-3)
                                                                                                12.01 MPA
                                                                 FCV TEMPERATURE (TE-FCV-1T) 564.9 K
                            564.9 K
FCV TEMPER TURE (TE-FCV-1T)
THP INLET ENTHALPY
                          1,296E+06 J/KG
                                                                  LHP INLET ENTHALPY 1.296E+06 J/KG
TEST SECTION:
                                                                  TEST SECTION:
                          .34 MPA
411.47 K
18.85 KG/SEC-M**2
.332
                                                                      PRESSURE
                                                                                                 .34 MPA
    PRESSURE
                                                                                            411.47 K
18.88 KG/SEC-M**2
.332
    SAT TEMP
                                                                      SAT TEMP
                                                                      MASS FLUX
    MASS FLUX
    INLET QUALITY
                                                                      INLET QUALITY
                                                                                      1.296E+06 J/KG
                                                                      INLET ENTHALPY
    INLET ENTHALPY
                          1.296E+06 J/KG
QUENCH FRONT:
                                                                  QUENCH FRONT:
    ELEVATION
                                                                      ELEVATION
                                .279 M
                                                                                                   .283 M
    VELOCITY
                              .0018 M/SEC
                                                                      VELOCITY
                                                                                                .0018 M/SEC
    QUALITY
                              .365
0.0 W
                                                                      QUALITY
                                                                                                 . 366
NET LHP POWER TO FLUID
                                                                  NET LHP POWER TO FLUID
                                                                                                   0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV
                        XE XA
                                                                  ELEVATION DZQF TV XE XA
 (M)
           (M)
                    (K)
                                                                   (M)
                                                                             (M)
                                                                                      (K)
                                                                           1.559 851.6 .564 .394
1.537
          1.258 780.7 .531 .391
                                                                  1.841
                                                                  WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  ELEVATION TEMP XE HEAT FLUX
ELEVATION
           TEMP XE HEAT FLUX
                                          HEAT LOSS
                                                                                                               HEAT LOSS
                                                                  (M)
                                W/M**2
                                             W/M**2
 (M)
             (K)
                                                                               (K)
                                                                                                   M/M**2
                                                                                                                W/M##2
                      . 334
                             1.46E+04
 .013
            425.2
                                                                   .013
                                                                               425.2
                                                                                        .333 1.46E+04
 .051
                                                                   .051
            428.9
                               1.498+04
                                                                               428.8
                      .337
                                                                                        . 337
                                                                                                  1.48E+0h
                      .338
 .063
             426.0
                               1.47E+04
                                                                   .063
                                                                               425.9
                                                                                         . 338
                                                                                                  1.47E+04
                                                                                         .340 1.48E+04
                            1.47E+04
                      . 341
                                                                   .089
 .089
             435.1
                                                                               435.1
                      . 34:3
                               1.50E+04
 .114
            429.1
                                                                   . 114
                                                                               429.0
                                                                                         . 343
                                                                                              1.51E+04
 .140
                      . 345
                                                                   . 140
                              1.47E+04
            426.2
                                                                               426.2 -
                                                                                        . 345
                                                                                              1.47E+04
 . 165
                      .348
                             1.49E+04
                                                                   . 165
             427.8
                                                                               427.8
                                                                                         . 347
                                                                                                 1.50E+04
 .317
                                                                                        . 371
             754.7
                      . 372
                             3.50E+04
2.56E+04
                                                                               753.0
                                                                   .317
                                                                                                 3,50E+04
 . 394
             818.7
                      . 386
                                                                   . 394
                                                                               817.5
                                                                                         . 386
                                                                                                  2.52E+04
                      .398
                              2.51E+04
             855.1
                                                                                        .398
 .470
                                                                   .470
                                                                               853.9
                                                                                                  2.48E+04
 .546
             884.1
                              2.51E+04
                                                                   . 546
                      .410
                                                                               883.0
                                                                                                  2.47E+04
                                                                                         .409
 .622
             901.8
                       .422
                              2.43E+04
                                                                   .622
                                                                               900.8
                                                                                         .421
                                                                                                  2.40E+04
                              2.36E+04
                                                                   .698
 .698
             921.2
                      .433
                                                                                         .432
                                                                               920.3
                                                                                                  2.34E+04
             934.6
                      . 445
                              2.30E+04
2.21E+04
 .775
                                                                   .775
                                                                                        . 443
                                                                               933.7
                                                                                                  2.29E+04
                      .455
 .851
             945.7
                                                                   .851
                                                                               945.0
                                                                                         . 454
                                                                                                  2.17E+04
 .927
                             2.14E+04
             947.7
                                                                   .927
                       .466
                                                                               947.0
                                                                                         .464
                                                                                                  2.12E+04
                            1.94E+04
1.58E+04
1.62E+04
 1.003
             929.7
                      .476
                                                                   1,003
                                                                               929.2
                                                                                         .474 1.92E+04
                                                                                              1.57E+04
1.61E+04
                                        6.93E+02
1.43E+02
 1.067
             849.3
                       .483
                                                                   1.067
                                                                               849.0
                                                                                         .481
                                                                                                                8.87E+02
 1.156
             887.5
                      .492
                                                                   1.156
                                                                                         .490
                                                                               887.3
                                                                                                                1.69E+02
                      .499
 1.232
             851.3
                             1.59E+04
                                                                   1,232
                                                                               851.1
                                                                                         .497
                                                                                                  1.58E+04
 1.257
                      .502
                                1.68E+04
             865.6
                                                                   1,257
                                                                               865.4
                                                                                               1.64E+04
                                                                                         .500
 1.321
             876.8
                       .509
                               1.78E+04
                                                                  1.321
                                                                               876.5
                                                                                         .507
                                                                                                   1.76E+04
 1.384
             941.5
                       .516
                               1.85E+04
                                                                  1.384
                                                                               941.1
                                                                                         .514
                                                                                                  1.83E+04
 1.461
             975.0
                       .525
                               1.92E+04
                                                                  1.460
                                                                               974.5
                                                                                         .523
                                                                                                   1.90E+04
 1.511
             975.3
                               1.85E+04
                       .531
                                                                  1.511
                                                                               974.8
                                                                                         .529
                                                                                                  1.80E+04
             948.6
 1.562
                       .537
                                1.97E+04
                                                                  1,562
                                                                               948.1
                                                                                                  1.89E+04
                                                                                         .535
 1.613
             967.7
                               1.97E+04
                       .543
                                                                  1.613
                                                                               967.2
                                                                                         .541
                                                                                                 1.90E+04
 1.689
             997.0
                       .553
                              1.97E+04
                                                                                         .550
                                                                  1.689
                                                                               996.5
                                                                                                  1.90E+04
 1.765
            1009.4
                       .562
                               1.89E+04
                                                                  1.765
                                                                              1009.0
                                                                                         .559
                                                                                                  1.83E+04
 1.816
             994.8
                      .568
                               1.72E+08
                                                                  1.816
                                                                               994.5
                                                                                         .564
                                                                                                  1.67E+04
             954.8
                              1.78E+04
 1.867
                      .574
                                                                                         .570
                                                                  1.867
                                                                               954.5
                                                                                                   1.73E+04
                             1.67E+04
                      .579
 1.918
             944.1
                                                                                         .575
                                                                  1.918
                                                                               943.9
                                                                                                   1.615+04
                      .587
```

1.994

2.070

944.9

928.3

.583

.589

1.55E+04

1.30E+04

INEL POST-CHE EX	PERIMENT NO. 111	INEL POST-CHE EX	CPERIMENT NO. 111
POINT SERIAL NO. 1111.020	(TIME= 246.50 SEC)	POINT SERIAL NO. 2111.020	(TIME= 246.50 SEC)
LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	.36 MPA 412.66 K 18.96 KG/SEC-M**2 .333 1.300E+06 J/KG	LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	.33 MAA 412.66 K 18.96 KG/SEC-M**2 .333 1.300E+06 J/KG
	T LOCATION INFORMATION		
1.232 .915 674.8	.497 .396	1.537 1.220 766.0	.530 .394
WALL TEMPERATURE MEASUREMENT ELEVATION TEMP (M) (M) (M) (A) (A) (B) (B) (B) (C) (C) (C) (C) (C	0 2.46E+04 2 2.39E+04 3 2.32E+04 4 2.27E+04 5 2.20E+04 5 2.12E+04 15 1.95E+04 12 1.60E+04 8.67E+02 11 1.65E+04 2.16E+02 11 1.73E+04 11 1.73E+04 11 1.73E+04 12 1.84E+04 13 1.89E+04 14 1.89E+04 16 1.93E+04 17 1.94E+04 1 1.94E+04 1 1.94E+04 1 1.94E+04 1 1.94E+04 1 1.94E+04 1 1.94E+04 1 1.94E+04	WALL TEMPERATURE MEASUREMENT ELEVATION TEMP (M) (K) .013	1.46E+04 1.46E+04 1.46E+04 1.49E+04 1.49E+04 1.49E+04 1.47E+04 1.47E+04 1.48 1.47E+04 1.88 1.47E+04 1.88 2.50E+04 1.88 2.39E+04 1.32 2.39E+04 1.32 2.32E+04 1.55 2.12E+04 1.55 2.12E+04 1.55 2.12E+04 1.55 1.60E+04 1.77E+04 1.73E+04 1.77E+04 1.73E+04 1.77E+04 1.89E+04 1.89E+04 1.93E+04 1.93E+04 1.93E+04 1.93E+04 1.93E+04 1.93E+04 1.93E+04 1.94E+04 1.94E+04 1.94E+04 1.94E+04 1.94E+04 1.94E+04 1.94E+04 1.94E+04 1.94E+04

	THELE TOO	I - Cili Lateri				THEE TOO	il dill Lat	LATTERY HO. 1	
POINT SERT	AL NO. 31	11.020 (T	IME= 248.50 SEC)	POINT SERI	AL NO. 11	11.030	(TIME= 267,50	SEC)
LOOP PRESS	URE(PE-3)		11.91 MPA		LOOP PRESS	SURE (PE-3)		12.01 MPA	
FCV LEMPER	ATURE (TE-FI	CV-11)	565.7 K		ICV TEMPER	ATURE (TE-F	CV-11)	566.3 K	
LHP INLET	ENTHALPY	1	.301E+06 J/KG		LHP INLET	ENTHALPY		1.304E+06 J/K	9
TEST SECTION	ON:				TEST SECTI	ON:			
PRESS	URE		. 36 MPA		PRESS	URE		. 35 MPA	
SAT T	EMP		412.64 K		SAT I	EMP		412.43 K	
MASS	FillX		18.90 KG/SEC	-M**2	MASS	FLUX		18.78 KG/	SEC-M**2
INLET	QUALITY		. 333		INLET	QUALITY		. 335	
INLET	ENTHALPY	1	.301E+06 J/KG		INLET	ENTHALPY		1.304E+06 J/K	
QUENCH FROM	NI:				QUENCH FRO	INT:			
ELEVA	TION		.320 M		ELEVA	TION		. 354 M	
AFFOC	IIY		.0018 M/SEC		VELOC	TIY		.0018 M/S	C
QUAL I	IY.	LIN.	.312		QUAL	IY	100	.3//	
MET THE POL	MEK TO FLU	10	G.U W		LOOP PRESS FCV TEMPER LIIP INLET TEST SECTI PRESS SAT T MASS INLET INLET QUENCH FRO ELEVA VELOC QUALI NET LIIP PO	WER TO FEU	10	0.0.W	
VAPOR TEMP	ERATURE ME	ASUREMENT L	OCATION INFORMA	TION	VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATION INFO	RMATION
(M)	(M)	(K)	E AA		(M)	(M)	(K)	AE AA	
1.841	1.521	842.7 .5	67 .398		VAPOR TEMPELEVATION (M) 1.232 WALL TEMPEELEVATION (M)	.878	657.3	.501 .405	
WALL TEMPER	RATURE MEAS	SUREMENT 10	CATION INFORMAT	ION	WALL TEMPE	RATURE MEA	SURFMENT	LOCATION INFOR	MATION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	FLEVATION	TEMP	XE	HEAT TLU	HEAT LOSS
(M)	(K)		H/M**2	W/M**2	(M)	(K)		W/M**2	W/M**2
.013	h2h_6	334	1 46F+04		(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321	h2h 1	336	1.45E+04 1.46E+04 1.46E+04 1.47E+04 1.47E+04 1.45E+04 2.55E+04 4.33E+04 2.48E+04 2.34E+04 2.28E+04 2.28E+04 1.7E+04 1.97E+04 1.63E+04 1.68E+04	
.051	428.2	338	1 465+04		051	427 h	330	1 46E+04	
.063	425.4	339	1.465+04		063	h2h 8	340	1 465+04	
.089	1134.0	341	1 49F+04		089	432 7	3/13	1 481+04	
.114	127.7	3114	1 49F+04		114	h26 3	345	1 h7F+0h	
.140	1125 4	346	1. 465+04		140	. h2h 6	347	1 455 +04	
. 165	426.7	349	1.47F+04		165	125 8	350	1 465+04	
.317	612.2	. 371	3.321+04		317	466.7	369	2.55E+04	
. 394	795.4	. 386	2.72E+04		394	765.7	386	4 33E+04	
.470	834.2	. 398	2.50E+04		470	812.5	.402	2.48F+04	
.546	864.6	.410	2.44E+04		.546	844.8	,414	2.40E+04	
.622	883.6	.422	2.39E+04		.622	865.2	.425	2.34[+04	
.698	904.6	.433	2.31E+04		.698	887.8	. 436	2.281+04	
.775	919.0	. 444	2.27E+04		.775	903.0	.447	2.24E+04	
.851	931.6	.455	2.20E+04		.851	917.0	.458	2.18£+04	
.927	935.3	. 465	2.12E+04		.927	922.4	.468	2.11E+04	
1.003	920.7	.475	1.95E+04		1.003	910.8	.478	1.97E+04	
1.067	844.8	.482	1.61E+04	8.65E+02	1.067	839.4	.485	1.63E+04	9.51E+02
1.156	883.4	.491	1.65E+04	2.32E+02	1.156	878.3	.495	1.68E+04	4.52E+02
1.232	847.2	.499	1.60E+04		1.232	842.3	.503	1.641+04	
1.257	860.8	.501	1.74E+04		1.257	855.1	.505		
1.321	871.1 934.3	.508	1.74E+04 1.77E+04 1.85E+04		1.321	865.1	.512	1.76E+04	
1 - 2 - 2 - 2	200 200	.516	1.85E+04		1.384	260.0	. 260	1.84E+04	
1.460	901.0	.525	1.89E+04		1.460	958.8	.529	1.89E+04	
1.511	966.9		. 1.81E+04		1.511	958.4	. 535	1.80£+04	
1.562	940.0	.537	1.93E+04		1.562	931.3	.541	1.93E+04	
1.613	958.7	.543	1.94E+04		1.613	949.8	.547	1.93E+04	
1.689	988.7	.552	1.91E+04		1.689	980.3	.556	1.91E+04	
	1002.5	.561	1.85E+04		1.765	995.1	. 565	1.86E+04	
1.765	988.9	.567	1.70E+04		1.816	982.5	.571	1.72E+04	
1.816	04.0				1.867	944 6	.576	1 76F+0h	
1.816	950.0	.572	1.755+04		1.007	244.6		1 - 1 - 1 - 1 - 1	
1.816 1.867 1.918	950.0 940.2	.578	1.69E+04		1.918	935.8	.582	1.73E+04	
1.816	950.0 940.2 943.2	.578	1.81E+04 1.93E+04 1.94E+04 1.91E+04 1.85E+04 1.70E+04 1.75E+04 1.69E+04 1.59E+04 6.74E+04	8.65E+02 2.32E+02	1.918 1.994	980.3 995.1 982.5 944.6 935.8 940.8 735.7	.582	1,80E+04 1,93E+04 1,93E+04 1,91E+04 1,86E+04 1,72E+04 1,73E+04 1,63E+04 9,34E+04	

INEL POST-CHE EXPERIMENT NO. 111					INEL POST-CHE EXPERIMENT NO. 111				
POINT SERI	AL NO. 21	11.030 (1	IME= 268.50 SE	c)	POINT SER	IAL NO. 31	11.030 (TIME= 268.50 SEC)
LOOP PRESS FCV TEMPER LHP INLET TEST SECTI	SURE(PE-3) RATURE(TE-F ENTHALPY ON:	CV-1T)	12.02 MPA 566.3 K .304E+06 J/KG	G-M**2	LOOP PRES FCV TEMPER LHP INLET TEST SECT	SURE(PE-3) RATURE(TE-F ENTHALPY ION:	CV-11)	12.02 MPA 566.3 K 1.304E+06 J/KG	
PRESS	URE		. 35 MPA		PRES	SURE		. 35 MPA	
SAT I	EMP		412,44 K		SAI	TEMP		412.44 K	-MRRO
INIFI	PLUX ITV		18.79 KU/SE	-M2	INLE	T OUAL LTV		335	-M5
INLET	ENTHALPY	1.	304E+06 J/KG		INLE	TENTHALPY		.35 MPA 412.44 K 18.79 KG/SEC .335 1.304E+06 J/KG	
QUENCH FRO	NT:				QUENCH FRO	ONT:			
ELEVA	TION		.356 M		ELEV	ATION		.356 M	
VELOC	ITY		.0018 M/SEC		VELO	CITY		.0018 M/SEC	
QUALI	IY	· n	.3//		QUAL	IIY	10	.3//	
ELEVATION .356 M VELOCITY .0018 M/SEC QUALIFY .377 NET LHP POWER TO FLUID 0.0 W									
APOR TEMP		ASUREMENT LO	DCATION INFORMA	ATION	VAPOR TEM	PERATURE ME	ASUREMENT	LOCATION INFORMA	FION
		(K)	E XA		(M)	(M)	(K)	AE AA	
	1.181		35 .404		1.841	1.486	838.2		
ALL TEMPE	RATURE MEA	SUREMENT LOG	CATION INFORMAT	HEAT LOSS W/M**2	WALL TEMPI	ERATURE MEA	SUREMENT L	OCATION INFORMAT	ION
LEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOS
(M)	(K)		M/M##2	W/M==2	(m)	(K)		M/W==5	H/M==5
.913 .051 .063 .089 .114 .140 .165 .317 .394	424.1 427.4 424.7 432.6 426.3	.336	1.45E+04 1.47E+04 1.46E+04 1.48E+04		.013	424.1	. 336	1.45C+04 1.47E+04 1.46E+04	
.051	427.4	.339	1.47£+04		.051	427.4	. 339	1.478+04	
.063	424.7	. 340	1.46E+04		.063	424.7	. 340	1.46E+04	
114	432.6	. 343	1.486+04		.089	432.6	. 343	1 025 + 110	
140	424.6	347	1.47E+04 1.46E+04		140	1124 6	. 347	1.47E+04 1.46E+04 1.46E+04 2.51E+04	
. 165	425.8	.350	1.46E+04 2.51E+04 4.40E+04		.165	425.8	.350	1.46E+04	
.317	461.2	. 369	2.51E+04		.317	461.2	. 369	2.51E+04	
. 394	761.4	. 386	4.40E+04		. 394	761.4	. 386	4.401+04	
.470	811.3	.402	2.48E+04		.470	811.3	.402	2.48E+04	
.622	843.7 864.2	.414	2.40E+04 2.34E+04		.546	843.7	.414	2.40E+04	
.698	886.9	.436	2.28E+04		608	886 0	1,425	2.34E+04 2.28E+04	
.775	902.1	447	2.24E+04		.775	902.1	.436	2.24E+04	
.775 .851	916.2	. 458	2.188+04	9.32£+02 4.59E+02	.851	916.2	.458	2.18E+04	
.927	921.7	.468	2.11E+04		1.003	921.7	.468		
1.003	910.3	.478	1.98E+04	0.107.40	1.003	910.3	.478	2.11E+04 1.98E+04	
1.067	839.1 878.0	. 485	1.64E+04	9.321+02	1.067	839.1	.485	1.64E+04	9.32E+02
	842.0	.495	1.65E+04	4.591+02	1.156 1.232	878.0	,495	1.64E+04 1.69E+04 1.65E+04	4.59E+02
1.156		.505	1.80E+04		1.257	842.0 854.7	.505	1.80E+04	
1.232					1.6.21	0.74.1	. 101	1.77E+04	
1.232	854.7	.513	1.77E+04		1.321		513		
1.232 1.257 321 384	854.7 864.8 926.4	.513	1.77E+04 1.85E+04		1.321	864.8 926.4	.513	1.85E+04	
1.232 1.257 321 384 1.460	854.7 864.8 926.4 958.4	.513 .520 .529	1.77E+04 1.85E+04 1.89E+04		1.321 1.384 1.460	864.8 926.4 958.4	.520	1.85E+04 1.89E+04	
1.232 1.257 321 384 1.460 1.511	854.7 864.8 926.4 958.4 957.9	.513 .520 .529 .535	1.77E+04 1.85E+04 1.89E+04 1.81E+04		1.321 1.384 1.460 1.511	864.8 926.4 958.4 957.9	.520 .529	1.85E+04 1.89E+04 1.81E+04	
1.232 1.257 321 384 1.460 1.511 1.562	854.7 864.8 926.4 958.4 957.9 930.8	.513 .520 .529 .535 .541	1.77E+04 1.85E+04 1.89E+04 1.81E+04		1.321 1.384 1.460 1.511 1.562	864.8 926.4 958.4 957.9 930.8	.520 .529	1.85E+04 1.89E+04 1.81E+04	
1.232 1.257 321 384 1.460 1.511 1.562 1.613	854.7 864.8 926.4 958.4 957.9 930.8 949.2	.513 .520 .529 .535 .541	1.77E+04 1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04		1.321 1.384 1.460 1.511 1.562 1.613	864.8 926.4 958.4 957.9 930.8 949.2	.520 .529	1.85E+04 1.89E+04 1.81E+04	
1.232 1.257 321 384 1.460 1.511 1.562 1.613	854.7 864.8 926.4 958.4 957.9 930.8 949.2 979.8	.513 .520 .529 .535 .541 .547	1.77E+04 1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04 1.92E+04		1.321 1.384 1.460 1.511 1.562 1.613	864.8 926.4 958.4 957.9 930.8 949.2	.520 .529 .535 .541 .547	1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04	
1.232 1.257 321 384 1.460 1.511 1.562 1.613 1.689 1.765	854.7 864.8 926.4 958.4 957.9 930.8 949.2 979.8	.513 .520 .529 .535 .541 .547 .557	1.77E+04 1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04 1.92E+04 1.87E+04		1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765	864.8 926.4 958.4 957.9 930.8 949.2 979.8	.520 .529 .535 .541 .547	1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04	
384 1.460 1.511 1.562 1.613 1.689 1.765 1.816	854.7 864.8 926.4 958.4 957.9 930.8 949.2 979.8 994.7 982.2	.513 .520 .529 .535 .541 .547 .557	1.77E+04 1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04 1.92E+04 1.87E+04		1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816	864.8 926.4 958.4 957.9 930.8 949.2 979.8 994.7 982.2	.520 .529 .535 .541 .547 .557 .566 .571	1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04 1.92E+04 1.87E+04 1.73E+04	
1.232 1.257 321 384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	854.7 864.8 926.4 958.4 957.9 930.8 949.2 979.8 994.7 982.2 944.3	.513 .520 .529 .535 .541 .547 .557	1.77E+04 1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.92E+04 1.92E+04 1.73E+64 1.78E+04 1.75E+04		1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867	864.8 926.4 958.4 957.9 930.8 949.2 979.8 994.7 982.2 944.3	.520 .529 .535 .541 .547 .557 .566 .571 .577	1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.95E+04 1.92E+04 1.87E+04 1.73E+04 1.78E+04	
1.232 1.257 321 384 1.460 1.511 1.613 1.689 1.765 1.765 1.867	854.7 864.8 926.4 958.4 957.9 930.8 949.2 979.8 994.7 982.2	.513 .520 .529 .535 .541 .547 .557 .566 .571 .577 .583	1.77E+04 1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.96E+04 1.92E+04 1.87E+04		1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816	864.8 926.4 958.4 957.9 930.8 949.2 979.8	. 520 . 529 . 535 . 541 . 547 . 557 . 566 . 571 . 577 . 583	1.85E+04 1.89E+04 1.81E+04 1.95E+04 1.95E+04 1.92E+04 1.87E+04 1.73E+04 1.78E+04	

568.0

.608

```
POINT SERIAL NO. 1111.040 (TIME= 286.50 SEC)
                                                                   POINT SERIAL NO. 2111.040 (TIME= 286.50 SEC)
                                                                  TOOP PRESSURE(PE-3) 11.02 MPA 565.7 K LHP INLET ENTHALPY 1.301E+06 J/KG
LOOP PRESSURE(PE-3) 11.92 MPA
FCV lemperature(IE-FCV-11) 565.7 K
LHP INLET ENTHALPY 1.301E+06 J/KG
                                                                   TEST SECTION:
TEST SECTION:
                   .35 MPA
412.22 K
18.84 KG/SEC-M**2
.333
                            .35 MPA
                                                                                                     .35 MPA
                                                                       PRESSURE
                                                                                      412.22 K
18.84 KG/SEC-M**2
.333
    PRESSURE
    SAT TEMP
                                                                       SAT TEMP
                                                                       MASS FLUX
    MASS FLUX
                                                                       INLET QUALITY
    INLET QUALITY
    INLET QUALITY .333
INLET ENTHALPY 1.301E+06 J/KG
                                                                       INLET ENTHALPY 1.301E+06 J/KG
                                                                   QUENCH FRONT:
QUENCH FRONT:
    ELEVATION
                                 .388 M
                                                                       ELEVATION
                                                                                              .388 M
.0018 M/SEC
                            .0018 M/SEC
                                                                       VELOCITY
    VELOCITY
                              .381
                                                                       QUALITY
                                                                                               . 381
   QUALITY
NET LHP POMER TO FLUID
                               0.0 W
                                                                   NET LHP POWER TO FLUID
                                                                                                  0.0 W
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                   ELEVATION DZQF TV XE XA
           (M)
                                                                    (M)
                                                                              (M)
 (M)
                    (K)
                                                                                        (K)
1.232
            .844 642.0 .498 .407
                                                                   1.537
                                                                             1.149 734.9 .531 .405
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                  ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                               W/M##2
                                            W/M##2
                                                                                                    W/M**2
                                                                                                                 W/M##2
(M)
             (K)
                                                                   (M)
                                                                                (K)
                      .335 1,46E+04
.338 1.47E+04
.339 1.46E+04
.342 1.48E+04
                                                                                          .335 1.46E+04
.338 1.47E+04
.339 1.46E+04
                                                                                423.8
 .013
             423.8
                                                                     .013
 .051
                                                                    .051
             426.7
                                                                                426.7
                                                                    .063
 .063
             424.2
                                                                                424.2
                                                                                          . 342
                                                                                                1.48E+04
             431.7
 .089
                                                                     .089
                                                                                431.7
                                                                    . 114
                      . 344
                                                                                          .344 1.47E+04
 . 114
             425.3
                            1.47E+04
                                                                                425.3
                                                                                          .346 1.46E+04
                      . 346
                             1,46E+04
 . 140
             424.1
                                                                    . 140
                                                                                424.1
                      .749
                              1.461+04
 . 165
             425.2
                                                                    . 165
                                                                                425.2
                                                                                          .349 1.46E+04
                             1.82E+04
5.65E+04
2.43E+04
2.30E+04
2.24E+04
                                                                                               1.82E+04
5.65E+04
 .317
                      . 364
                                                                    .317
            437.0
                                                                                437.0
                                                                                          . 364
                                                                    .394
                                                                                          . 382
                       . 382
 . 394
             680.0
                                                                                680.0
             791.1
                                                                                          .402
 .470
                       .402
                                                                    .470
                                                                                791.1
                                                                                                    2.43E+04
                                                                                                2,30E+04
2,24E+04
             826.1
                      .413
                                                                    .546
                                                                                826.1
 ,546
                                                                                          .413
 .622
             847.9
                                                                                847.9
                      .424
                                                                    .622
                                                                                          .424
 .698
                      .434
                             2.20E+04
                                                                    .698
             871.8
                                                                                871.8
                                                                                          . 434
                                                                                                2.20E+04
 .775
                                                                    .775
                             2.17E+04
                                                                                                   2.17E+04
             887.8
                      .445
                                                                                887.8
                                                                                          . 445
                                                                                                2.12E+04
             903.2
                       . 455
                              2.12E+04
                                                                    .851
 . 851
                                                                                903.2
                                                                                          . 455
 .927
                       .465
             909.9
                               2.06E+04
                                                                     .927
                                                                                909.9
                                                                                                2.06E+0'
                                                                                          .465
                                                                                                1.96E+0'.
1.64E+04
1.70E+04
                             1.96E+04
1.64E+04
1.70E+04
5.82E+02
 1.003
             900.7
                      .475
                                                                    1.003
                                                                                900.7
                                                                                          .475
 1.067
             €33.5
                       .482
                                                                    1.067
                                                                                833.5
                                                                                          .482
                                                                                                                 1.14E+03
             872.2
 1.156
                       .492
                                                                    1.156
                                                                                872.2
                                                                                           .492
                                                                                                                  5.82E+02
                               1.68E+04
 1.232
             836.5
                       .500
                                                                    1.232
                                                                                836.5
                                                                                          ,500
                              1.79E+04
 1.257
             848.6
                       .502
                                                                    1.257
                                                                                848.6
                                                                                          .502
                                                                                                    1.79E+04
 1.321
             859.2
                       .509
                             1.76E+04
                                                                                859.2
                                                                                                1.761+04
                                                                    1,321
                                                                                           . 509
             919.3
                       .517
                              1.84E+04
 1.384
                                                                    1.384
                                                                                919.3
                                                                                           .517
                                                                                                   1.84E+04
 1,460
             950.8
                       .526
                              1.87E+04
                                                                    1.460
                                                                                950.8
                                                                                          .526 1.87E+04
                      .531
                              1.78E+04
1.88E+04
1.88E+04
 1,511
             950.2
                                                                    1.511
                                                                                950.2
                                                                                          .531 1.78E+04
                       .537
 1.562
             922.6
                                                                    1.562
                                                                                922.6
                                                                                          .537
                                                                                                   1.88E+04
 1.613
             941.1
                       .543
                                1.88E+04
                                                                    1.613
                                                                                941.1
                                                                                          .543
                                                                                                   1.88E+04
 1.689
             972.0
                              1.87E+04
                       .552
                                                                    1.689
                                                                                972.0
                                                                                          .552
                                                                                                    1.87E+04
                       .561
 1.765
             987:8
                              1.82E+04
                                                                    1.765
                                                                                987.8
                                                                                          .561
                                                                                                    1.82E+04
 1.816
             976.1
                       .567
                              1.69E+04
                                                                    1.816
                                                                                976.1
                                                                                          .567
                                                                                                    1.69E+04
             938.9
                      .572
                              1.75E+04
 1.867
                                                                   1.867
                                                                                938.9
                                                                                          .572
                                                                                                   1.75E+04
                            1.71E+04
1.97E+04
6.77E+04
            931.1
                      .578
 1.918
                                                                   1.918
                                                                                931.1
                                                                                          .578
                                                                                                1.71E+04
                      .587
 1.994
             936.5
                                                                   1.994
                                                                                936.5
                                                                                          .587 1.97E+04
```

2.070

568.0

.608 6.77E+04

568.0

.608

6.77E+04

INEL POST-CHE EXPERIMENT NO. 111

POINT SERIAL NO. 3111.040 (TIME= 286.50 SEC) POINT SERIAL NO. 1111.050 (TIME= 311.50 SEC) LOOP PRESSURE(PE-3) 11.90 MPA 11.92 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-11) 565.2 K FCV TEMPERATURE (TE-FCV-1T) 565.7 K 1.3G1E+06 J/KG LHP INLET ENTHALPY 1.298E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE . 35 MPA PRESSURE .35 MPA 412.22 K SAT TEMP 412.19 K SAT TEMP 18.71 KG/SEC-M**2 18.84 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .332 . 333 INLET QUALITY 1.301E+06 J/KG INLET ENTHALPY 1.298E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .388 M ELEVATION .32 M ELEVATION .0016 M/SEC .0018 M/SEC VELOCITY VELOCITY . 381 QUALITY . 383 QUALITY NET LHP POWER TO FLUID 0.0 W 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF DZQF TV XE XA ELEVATION TV XE XA ELEVATION (M) (M) (K) (M) (K) (M) . 404 1.232 .799 629.6 .487 .403 1.841 1.454 824.3 .567 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX W/M*#2 W/M**2 W/M**2 W/M##2 (M) (K) (M) (K) 423.8 . 335 1.46E+04 .013 423.3 .333 1.46E+04 .013 .337 1.47E+04 .051 426.1 1.46E+04 .051 426.7 . 338 . 338 1.45E+04 423.8 1.46E+04 063 .063 424.2 . 339 .089 430.6 . 340 1.48E+04 1.48E+04 .089 431.7 . 342 . 114 424.5 1.47E+04 1.47E+04 . 114 . 343 425.3 . 344 423.6 . 345 1.46E+04 . 346 1.46E+04 . 140 . 140 424.1 . 165 424.7 . 347 1.46F+04 1.46E+04 . 165 425.2 . 349 .362 1.82E+04 .317 430.5 1.55E+04 . 364 .317 437.0 5.65E+04 . 394 466.9 . 374 3.59E+04 680.0 .382 . 394 .470 761.0 .390 3.15E+04 791.1 .402 2.43E+04 .470 .546 803.6 404 2.28E+04 .413 2.30E+04 .546 826.1 827.8 .414 2.24E+04 .622 2.19E+04 .622 847.9 .424 852.8 871.8 . 434 2.20E+04 .698 .425 2.14E+04 .698 . 445 2.17E+04 .775 869.8 .435 2.11E+04 .775 887.8 .851 886.6 2.12E+04 . 445 2.08E+04 .851 903.2 . 455 2.06E+04 927 894.8 .455 2.02E+04 .465 .927 909.9 1.96E+04 1.003 888.0 1.94E+04 900.7 . 475 . 465 1.003 1.14E+03 825.6 1.24E+03 1.067 833.5 .482 1.64E+04 1.067 .472 1.63E+04 1.156 5.82E+02 863.9 1.156 872.2 .492 1.70E+04 .481 1.68E+04 7.62E+02 828.6 .500 1.68E+04 1.232 .489 1.68E+04 1.232 836.5 1.257 848.6 .502 1.79E+04 1.257 840.3 .492 1.79E+04 1.321 859.2 .509 1.76E+04 1,321 851.9 .499 1.76E+04 1.84E+04 1.384 910.0 .517 .507 1.83E+04 1.384 919.3 .526 1.87E+04 1.460 941.0 .516 1.85E+04 1.460 950.8 950.2 .531 1.78E+04 1.511 940.1 .521 1.76E+04 1.511 1.88E+04 1.562 912.8 1.562 922.6 .537 .527 1.81E+04 941.1 .543 1.88E+04 1.613 931.2 .533 1.613 1.83E+04 1.689 972.0 .552 1.87E+04 1.689 962.3 .542 1.83E+04 1.765 987.8 .561 1.82E+04 1.765 979.4 .551 1.79E+04 1.816 976.1 .567 1.69E+04 1.816 968.4 .556 1.67E+04 1.867 938.9 .572 1.75E+04 1.867 932.2 .562 1.73E+04 .578 1.918 931.1 1.71E+04 1.918 925.1 .567 1.72E+04 8.48E+04 1.994 936.5 .587 1.97E+04 1.994 840.7 .592

2.070

506.3

.618

2.43E+04

		THE TAXE CONT.	
POINT SERIAL NO. 2111.050	(TIME= 310.50 SEC)	POINT SERTAL NO. 3111.050	(TIME= 310.50 SEC)
LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	11.91 MPA 565.2 K 1.298E+06 J/KG .35 MPA 412.24 K 18.72 KG/SEC-M**2 .332 1.298E+06 J/KG .431 M .0018 M/SEC .383 0.0 W	LOOP PRESSURE (PE-3) FCV IEMPERATURE (TE-FCV-IT) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K) 1.841 1.411 817.2 WALL TEMPERATURE MEASUREMENT	11,92 MPA 565.2 K 1.298E+06 J/KG .35 MPA #12.24 K 18.72 KG/SEC-M**2 .332 1.298E+06 J/KG .431 M .0018 M/SEC .383 0.0 W
VAPOR TEMPERATURE MEASUREMEN ELEVATION DZQF TV	T LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV	LOCATION INFORMATION XE XA
(M) (M) (K)		(M) (M) (K)	
1.537 1.106 732.7	.522 .398	1.841 1.411 817.2	.559 .400
WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/M**2 W/M**2	WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/H**2 W/M**2
.013	1.46E+04 7 1.46E+04 8 1.46E+04 8 1.46E+04 9 1.48E+04 9 1.48E+04 1.46E+04 7 1.46E+04 7 1.46E+04 1.56E+04 2.369E+04 2.18E+04 2.18E+04 2.18E+04 2.18E+04 2.07E+04 2.07E+04 2.02E+04 1.94E+04 1.63E+04 1.76E+04 1.76E+04 1.85E+04 1.85E+04 1.85E+04 1.82E+04 1.82E+04 1.82E+04 1.82E+04 1.77E+04	ELEVATION (K) (M) (N) (N) (N) (N) (N) (N) (N	1. 46E+04 1. 46E+04 1. 46E+04 1. 48E+04 1. 47E+04 1. 46E+04 1. 46E+04 1. 56E+04 3. 69E+04 2. 18E+04 2. 18E+04 2. 18E+04 2. 12E+04 2. 07E+04 2. 07E+04 1. 63E+04 1. 63E+04 1. 79E+04 1. 79E+04 1. 85E+04 1. 85E+04 1. 85E+04 1. 82E+04 1. 82E+04 1. 82E+04 1. 82E+04 1. 79E+04 1. 87E+04 1. 79E+04

THEE TOST OF	ir chreminent no	100.0 100.0 00.0	
POINT SERIAL NO. 1111.0	060 (TIME= 336.50 SEC)	POINT SERIAL NO. 2111.060	(TIME= 336.50 SEC)
LOOP PRESSURE (PE-3)	11.94 MPA	LOOP PRESSURE(PE-3)	11.94 MPA
FCV TEMPERATURETTE-FCV-1	II) 566.0 K	FCV TEMPERATURE (TE-FCV-1T)	566.0 K
LHP INLET ENTHALPY	1.302E+06 J/KG	LHP INLET ENTHALPY	1.302E+06 J/KG
TEST SECTION:		TEST SECTION:	
PRESSURE	. 35 MPA	PRESSURE	. 35 MPA
SAT TEMP	411.87 K	SAI TEMP	411.87 K
MASS FLUX	18.65 KG/SEC-M**2	MASS FLUX	18.65 KG/SEC-M**2
INLET QUALITY	.335	INLET QUALITY	. 335
INLET ENTHALPY	1.302E+06 J/KG	INLET ENTHALPY	1.302E+06 J/KG
QUENCH FRONT:		QUENCH FRONT:	
ELEVATION	.472 M	ELEVATION	.472 M
VELOCITY	.0016 M/SEC	VELOCITY	.0016 M/SEC
QUALITY	. 386	QUALITY	. 386
NFT LHP POWER TO FLUID	0.0 W	LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	0.0 W
VAPOR TEMPERATURE MEASUR	REMENT LOCATION INFORMATION	VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (M) (K)	LOCATION INFORMATION
ELEVATION DZQF TV	XE XA	ELEVATION DZQF TV	XE XA
(M) (M) (F	0	(M) (M) (K)	
1.232 .759 622	2.1 .486 .404	1.537 1.064 717.5	.524 .404
WALL TEMPERATURE MEASURE	MENT LOCATION INFORMATION	WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION
ELEVATION TEMP	XE HEAT FLUX HEAT LOSS	ELEVATION TEMP XE	HEAT FLUX HEAT LOSS
(M) (K)	M/W##5 M/W##5	(M) (K)	M/W##5 M/W##5
.013 422.7	.336 1.47E+04	ELEVATION (M) .013	1.47E+04 1.47E+04 1.47E+04 1.47E+04 1.47E+04 1.47E+04 1.46E+04 1.52E+04 1.52E+04 2.46E+04 2.26E+04 2.19E+04 2.15E+04 2.15E+04 2.15E+04 2.15E+04 1.69E+04 1.69E+04 1.69E+04 1.69E+04 1.71E+04 1.71E+04 1.86E+04
.051 425.6	.339 1.47E+04	.051 425.6 .339	1.47E+04
.063 423.4	.341 1.46E+04	.063 423.4 .341	1.46E+04
.089 429.7	. 343 1.47E+04	.089 429.7 .343	1.47E+04
.114 423.7	.345 1.47E+04	.114 423.7 .345	1.47E+04
.140 423.2	.348 1.46E+04	. 140 423.2 . 348	1.46E+04
.165 424.3	.350 1.46E+04	.165 424.3 .350	1.46E+04
.317 427.7	.364 1.52E+04	.317 427.7 .364	1.52E+04
. 394 444.2	.372 1.65E+04	.394 444.2 .372	1.65E+04
.470 631.5	.385 3.70E+04	.470 631.5 .385	3.70E+04
.546 779.0	.400 2.46E+04	.546 779.0 .400	2.46E+04
.622 807.2	.411 2.261+04	.622 807.2 .411	2.26E+04
.698 834.2	.422 2.191404	.698 834.2 .422	2.19E+04
.775 852.2	.433 2.151.04	.775 852.2 .433	2.151+04
.851 870.2	.443 2.118+04	.851 870.2 ,443	2.111:+04
.927 879.9 1.003 875.1	.493 2.051404	1 002 879.9 .453	2.051+04
1.067 817.2	h70 : 63540h 1 035403	1.003 073.1 .403	1,998+04
1.156 855.0	480 1 755+04 6 116+03	1 156 855 0 480	1 755404 6 115402
1,232 820.5	480 1.71E+04	1 232 820.5 .489	1.71E+04
1,257 831.3	491 1 84F+04	1.257 831.3 .491	1.84E+04
1.321 843.9	499 1 815+04	1.321 843.9 .499	E = 507 E 50 C 507 E
1.384 900.6	506 1 875+04	1.384 900.6 .506	1 875+04
1.460 931.0	515 1 89F+04	1.460 931.0 .515	1.87E+04 1.89E+04
1.511 930.0	521 1.79F+04	1.511 930.0 .521	1.79£+04
1.562 903.8	.527 1.85E+04	1.562 903.8 .527	1.85E+04
1.613 921.5	.480 1.75E+04 6.11E+02 .489 1.71E+04 .499 1.84E+04 .506 1.87E+04 .515 1.89E+04 .527 1.85E+04 .533 1.88E+04 .542 1.86E+04 .557 1.72E+04 .557 1.72E+04 .563 1.79E+04 .563 2.5E+04 .563 2.5E+04 .563 2.5E+04	1.562 903.8 .527 1.613 921.5 .533 1.689 952.6 .542 1.765 970.6 .551 1.816 960.5 .557 1.867 925.4 .563 1.918 867.9 .581 1.994 594.8 .616 2.070 481.4 .633	1.88£+04
1.689 952.6	.542 1.88E+04	1.689 952.6 .542	1.88F+04
1.765 970.6	.551 1.86E+04	1.765 970.6 .551	1.86F+04
1.816 960.5	.557 1.72E+04	1.816 960.5 .557	1.72F+04
1.867 925.4	.563 1.79E+04	1.867 925.4 .563	1.79E+04
1.918 867.9	.581 9.35E+04	1.918 867.9 .581	9.35E+04
1.994 594.8	.616 5.16E+04	1.994 594.8 .616	5.16E+04
2.070 481.4	.633 2.03E+04	2.070 481.4 .633	2.03E+04
	.533		

481.4

.633

2.03E+04

```
POINT SERIAL NO. 1111.070 (.IME= 354.50 SEC)
POINT SERIAL NO. 3111.060 (TIME= 336.50 SEC)
                               11,94 MPA
                                                                   LOOP PRESSURE(PE-3)
                                                                                                   11.92 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE(TE-FCY-TT) 566.0 K
                                                                                                566.1 K
                                                                   FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY 1.302E+06 J/KG
                                                                   LHP INLET ENTHALPY 1.303E+06 J/KG
TEST SECTION:
                                                                   TEST SECTION:
    PRESSURF
                          411.87 K
18.65 KG/SEC-M**2
.335
                              . 35 MPA
                                                                       PRESSURE
                                                                                                    . 35 MPA
                                                                                               411.68 K
    SAT TEMP
                                                                        SAT TEMP
                                                                                                18.66 KG/SEC-M**2
    MASS FLUX
                                                                        MASS FLUX
    INLET QUALITY
                                                                        INLET QUALITY
                                                                                                   . 335
                        1.302E+06 J/KG
    INLET ENTHALPY
                                                                        INLET ENTHALPY
                                                                                        1.303E+06 J/KG
QUENCH FRONT:
                                                                   QUENCH FRONT:
    ELEVATION
                                 .472 M
                                                                       ELEVATION
                                                                                                     .501 M
    VELOCITY
                              .0016 M/SEC
                                                                        VELOCITY
                                                                                                .0016 M/SEC
                                                                                                   .390
    QUALITY
                               . 386
                                                                        QUALITY
NET LHP POWER TO FLUID
                                 0.0 W
                                                                   NET LHP POWER TO FLUID
                                                                                                     0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV
                          XE XA
                                                                   ELEVATION DZQF TV XE XA
 (M)
            (M)
                    (K)
                                                                    (M)
                                                                               (M)
                                                                                        (K)
                                                                    1.232 .731 606.6 .487 .410
1.841
           1.369 810.4 .560 .403
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                   XE HEAT FLUX
ELEVATION
                                           HEAT LOSS
                                                                   ELEVATION
            TEMP
                                                                                TEMP XE HEAT FLUX
                                                                                                                  HEAT LOSS
                                 W/M##2
                                              W/M**2
 (M)
             (K)
                                                                    (M)
                                                                                 (K)
                                                                                                     W/M##2
                                                                                                                   M/W##5
                                                                                          . 336
             422.7
                      .336
                                1.47E+04
 .013
                                                                     .013
                                                                                422.3
                                                                                                    1.47E+04
             425.6
                                1.47E+04
                                                                                           . 340
 .051
                       . 339
                                                                     .051
                                                                                425.4
                                                                                                     1.47E+04
                                1.46E+04
  .063
             423.4
                       . 341
                                                                     .063
                                                                                423.1
                                                                                           . 341
                                                                                                    1.47E+04
                       . 343
             429.7
                                 1.47E+04
                                                                     .089
  .089
                                                                                429.3
                                                                                           . 343
                                                                                                     1.48E+04
                       . 345
                                                                     . 114
  . 114
             423.7
                             1.47E+04
                                                                                423.2
                                                                                           . 346
                                                                                                     1.47E+04
                             1.46E+04
1.46E+04
  . 140
             423.2
                       . 348
                                                                                           . 348
                                                                     . 140
                                                                                423.0
                                                                                                     1.47E+04
             424.3
                       .350
  . 165
                                                                     . 165
                                                                                           . 350
                                                                                424.1
                                                                                                     1.47E+04
                       . 364
                                                                    .317
  .317
             427.7
                                1.52E+04
                                                                                426.3
                                                                                           . 365
                                                                                                     1.50E+04
                               1.65E+04
                       .372
                                                                     . 394
  . 394
             444.2
                                                                                440.3
                                                                                           .372
                                                                                                 1.59E+04
                                                                                           .383
  .470
             631.5
                       . 385
                                3.70E+04
                                                                     .470
                                                                                495.8
                                                                                                    2.97E+04
                       .400
             779.0
                                2.46E+04
                                                                    .546
  .546
                                                                                 755.2
                                                                                           . 399
                                                                                                    3.43E+04
                       .411
  .622
             807.2
                                2.26E+04
                                                                     .622
                                                                                 791.2
                                                                                                    2.29E+04
                                                                                           .413
                                                                    .698
 .698
             834.2
                       .422
                                2.19E+04
                                                                                820.3
                                                                                           .424
                                                                                                     2.18E+04
                       .433
             852.2
                                2.15E+04
 .775
                                                                                           . 434
                                                                    .775
                                                                                839.4
                                                                                                     2.12E+04
                       .443
  .851
             870.2
                                2.11E+04
                                                                                058.3
                                                                     .851
                                                                                           . 141414
                                                                                                    2.09E+04
  .927
             879.9
                       .453
                                2.05E+04
                                                                     .927
                                                                                869.0
                                                                                           . 454
                                                                                                    2.05E+04
 1.003
             875.1
                                1.99E+04
                                                                                           .464
                                                                                                   1.99E+04
                       .463
                                                                    1.003
                                                                                865.4
 1.067
             817.2
                       .470
                                1.691+04
                                             1.03E+03
                                                                    1.067
                                                                                810.8
                                                                                           .471
                                                                                                     1.69E+04
                                                                                                                  1.07E+03
 1.156
             855.0
                                 1.75E+04
                                              6.11E+02
                       .480
                                                                    1.156
                                                                                848.1
                                                                                                    1.75E+04
                                                                                           .481
                                                                                                                  7.56E+02
                                                                    1.232
 1.232
             820.5
                       .489
                                 1.71E+04
                                                                                814.2
                                                                                                     1.72E+04
                                                                                           .489
 1.257
             831.3
                       .491
                                 1.84E+04
                                                                    1.257
                                                                                824.6
                                                                                           .492
                                                                                                     1.85E+04
 1.321
             843.9
                       .499
                                 1.81E+04
                                                                    1.321
                                                                                837.9
                                                                                           .500
                                                                                                     1.81E+04
 1.384
             900.6
                       .506
                                 1.87E+04
                                                                    1.384
                                                                                893.4
                                                                                           .507
                                                                                                    1.88E+04
 1.460
             931.0
                       .515
                                1.89E+04
                                                                    1,460
                                                                                923.4
                                                                                                    1.90E+04
                                                                                           .516
 1.511
             930.0
                       .521
                                1.79E+04
                                                                    1.511
                                                                                922.4
                                                                                           .522
                                                                                                     1.80E+04
 1.562
             903.8
                       .527
                                1.85E+04
                                                                                           .528
                                                                    1.562
                                                                                897.1
                                                                                                     1.86E+04
                       .533
 1.613
             921.5
                                1.88E+04
                                                                    1.613
                                                                                914.5
                                                                                           .534
                                                                                                     1.87E+04
 1.689
             952.6
                       .542
                                1.88E+04
                                                                    1.689
                                                                                945.6
                                                                                                   1.87E+04
                                                                                           .543
             970.6
                               1.86E+04
 1.765
                       .551
                                                                    1.765
                                                                                964.0
                                                                                           .552
                                                                                                    1.85E+04
 1.816
             960.5
                                1.72E+04
                       .557
                                                                    1.816
                                                                                954.5
                                                                                           .558
                                                                                                     1.73E+04
                       .563
 1.867
             925.4
                                1.79E+04
                                                                    1.867
                                                                                918.8
                                                                                           .564
                                                                                                    2.03E+04
                       .581
 1.918
             867.9
                                9.35E+04
                                                                    1.918
                                                                                637.1
                                                                                           .584
                                                                                                    1.05E+05
 1.994
                                5.16E+04
             594.8
                       .616
                                                                    1.994
                                                                                544.2
                                                                                           .617
                                                                                                    2.95E+04
```

2.070

469.7

.629

1.87E+04

637.1

544.2

469.7

.564

. 584

.617

.629

1.867

1.918

1.994

2.070

2.03E+04

1.05E+05

2.95E+04

1.87E+04

.564

.584

.617

.629

2.03E+04

1.05E+05

2.95E+04

1.87E+04

913.8

637.1

544.2

469.7

1.867

1.918

1.994

458.7

.614

1.75E+04

```
POINT SERIAL NO. 1111.080 (TIME= 378.50 SEC)
                                                                  POINT SERIAL NO. 2111.080 (TIME= 378.50 SEC)
                            12.05 MPA
565.3 K
LOOP PRESSURE(PE-3)
                                                                                                 12.05 MPA
                                                                 FCV TEMPERATURE (TE-FCV-1T) 12.05 MP. 565.3 K
                                                                  LOOP PRESSURE (PE-3)
FCV TEMPERATURE (TE-FCV-11)
LHP INLET ENTHALPY
                           1.298E+06 J/KG
                                                                  LHP INLET ENTHALPY 1.298E+06 J/KG
TEST SECTION:
                                                                  TEST SECTION:
    PRESSURE
                                                                                           411.43 K
18.90 KG/SEC-M**2
.333
                                                                      PRESSURE
                                 . 34 MPA
    SAT TEMP
                           411.43 K
                                                                      SAT TEMP
                          18.90 KG/SEC-M**2
    MASS FLUX
                                                                     MASS FLUX
                                                                      INLET QUALITY
    INLET QUALITY
                       1.298E+06 J/KG
    INLET ENTHALPY
                                                                     INLET ENTHALPY 1.298E+06 J/KG
QUENCH FRONT:
                                                                 QUENCH FRONT:
    ELEVATION
                                .548 M
                                                                     ELEVATION
                                                                                                   .548 M
                                                                                              .0020 M/SEC
    VELOCITY
                             .0020 M/SEC
                                                                      VELOCITY
                             . 394
                                                                                                . 394
    QUALITY
                                                                     QUALITY
NET LHP POWER TO FLUID
                                0.0 W
                                                                 NET LHP POWER TO FLUID
                                                                                                  0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                  VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV
                         XE XA
                                                                  ELEVATION DZQF TV XE XA
 (M)
           (M)
                    (K)
                                                                  (M)
                                                                             (M)
                                                                                      (K)
1.232
           . 684
                 599.4 .485 .411
                                                                  1.537
                                                                             .989 688.3 .523 .412
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
           TEMP XE HEAT FLUX HEAT LOSS
                                                                             TEMP XE HEAT FLUX HEAT LOSS
                                                                 ELEVATION
 (M)
             (K)
                                W/M##2
                                             W/M##2
                                                                  (M)
                                                                               (K)
                                                                                                  W/M##2
                                                                                                                W/M##2
 .013
            422.1
                                1.47E+04
                                                                                        . 334
                      . 334
                                                                               422.1
                                                                                                  1.47E+04
                                                                   .013
 .051
                             1.47E+04
            425.1
                      . 338
                                                                               425.1
                                                                                        .338
                                                                                                  1.47E+04
                                                                   .051
                            1,47E+04
                      . 339
             422.9
                                                                                                  1.47E+04
  .063
                                                                               422.9
                                                                                        . 339
                                                                   .063
                                                                                         . 341
 .089
             428.8
                      . 341
                             1.48E+04
                                                                   .089
                                                                               428.8
                                                                                                  1.48E+04
  . 114
            422.9
                             1.48E+04
                                                                   .114
                                                                                         . 3114
                      . 344
                                                                               422.9
                                                                                                  1.48E+04
                             1.47E+04
  . 140
            422.8
                      . 346
                                                                   . 140
                                                                               422.8
                                                                                         . 346
                                                                                                  1.47E+04
  .165
                      . 348
             423.9
                               1.47E+04
                                                                   .165
                                                                               423.9
                                                                                         . 348
                                                                                                  1.47E+04
  .317
                      .363
                                                                   .317
             425.2
                               1.49E+04
                                                                               425.2
                                                                                         .363 1.49£+04
                                                                                         .370 1.57E-04
1.88E+04
                      .370
                                                                   . 394
  . 394
             436.3
                               1.57E+04
                                                                               436.3
                             1.88E+04
  .470
             452.5
                      . 378
                                                                   .470
                                                                               452.5
 .546
             605.2
                      . 393
                               4.42E+04
                                                                               605.2
                                                                                         . 393
                                                                                                 4.42E+04
                                                                   . 546
                                                                   .622
  .622
                               2.64E+04
             766.8
                      . 410
                                                                               766.8
                                                                                         .410
                                                                                               2.64E+04
                                                                   .698
 .698
             801.1
                      .422
                              2.23E+04
                                                                               801.1
                                                                                         .422
                                                                                                2.23E+04
 .775
            822.3
                      ,432
                               2.14E+04
                                                                   .775
                                                                               822.3
                                                                                         .432
                                                                                                  2.14E+04
 .851
                      .442
            842.7
                               2.08E+04
                                                                   .851
                                                                                                 2.08E+04
                                                                               842.7
                                                                                         .442
                             2.04E+04
 .927
             854.8
                      .452
                                                                                                2.04[+04
                                                                   .927
                                                                               854.8
                                                                                         .452
                                                                                                 1.98E+04
 1.003
             852.5
                               1.981+04
                                                                   1.003
                                                                                         .462
                       .462
                                                                               852.5
                             1.72E+04
 1.067
             802.1
                       .469
                                          9.10E+02
                                                                   1.067
                                                                               802.1
                                                                                         . 469
                                                                                                1.72E+04
1.78E+04
                                                                                                               9.10E+02
 1.156
             838.4
                       .479
                                1.78E+04
                                             5.95E+02
                                                                   1.156
                                                                               838.4
                                                                                         .479
                                                                                                                5.95E+02
 1.232
             805.5
                                1.74E : 04
                       .487
                                                                   1.232
                                                                               805.5
                                                                                         .487
                                                                                                  1.74E+04
 1.257
             815.5
                                1.86E+04
                       .490
                                                                   1.257
                                                                               815.5
                                                                                                  1.86E+04
                                                                                         .490
 1.321
             829.5
                       .498
                                1.83E+04
                                                                   1.321
                                                                               829.5
                                                                                         .498
                                                                                                  1.83E+04
 1.384
             883.5
                       .505
                               1.89E+04
                                                                   1.384
                                                                               883.5
                                                                                         .505
                                                                                                  1.89E+04
            913.2
 1.460
                       .514
                                1.90E+04
                                                                   1,460
                                                                               913.2
                                                                                         .514
                                                                                               1.90E+04
 1.511
             912.3
                      .520
                                1.81E+04
                                                                               912.3
                                                                   1.511
                                                                                         .520
                                                                                                  1.81E+04
 1.562
             887.5
                       .526
                                1.89E+04
                                                                  1.562
                                                                               887.5
                                                                                         .526
                                                                                                  1.89E+04
 1.613
                                                                                         .532
             904.7
                       .532
                                1.89E+04
                                                                   1.613
                                                                               904.7
                                                                                                  1.89E+04
 1.489
                                                                                         .541
             936.0
                       .541
                                1.89E+04
                                                                   1.689
                                                                               936.0
                                                                                                  1.89E+04
 1.765
             955.1
                       .550
                                1.86E+04
                                                                   1.765
                                                                               955.1
                                                                                         .550
                                                                                                  1.86E+04
 1.816
             945.5
                      .556
                                1.83E+04
                                                                   1.816
                                                                               945.5
                                                                                         .556
                                                                                                  1.83E+04
 1.867
             787.4
                      .573
                                9.265+04
                                                                                         .5/3
                                                                   1.867
                                                                               787.4
                                                                                                  9.20E+04
 1.918
             467.4
                      .592
                               2.79E+04
                                                                                         .592
                                                                   1.918
                                                                               467.4
                                                                                                  2.79E+04
 1.994
             508.7
                      .605
                                2.33E+04
                                                                   1.994
                                                                               508.7
                                                                                         .605
                                                                                                  2.33E+04
```

2.070

458.7

.614

1.75E+04

POINT SERIA	AL NO. 311	1.080 (TIME= 378.5	O SEC)		POINT SERIA	L NO. 11	111.090	(TIME= 415	50 SEC	
LOOP PRESSIFICY TEMPERS LHP INLET I TEST SECTION PRESSIFICATION MASS I INLET INLET QUENCH FROM ELEVA VELOC QUALI NET LHP PON	URE(PE-3) ATURE(TE-FC ENTHAL PY DURE EMP FLUX QUALITY ENTHAL PY NT: FION ITY FR TO FLUTI	V-1T)	12.05 M 565.1 M 1.297E+06 J .34 M 411.43 M 18.90 M .333 1.297E+06 J .54U M .0020 M .394 0.0 M	MPA ()/KG MPA ()/KG M/KG M/SEC		LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	RE(PE-3) TURE(TE-INTHALPY N: RE MP LUX QUALITY ENTHALPY I: ION IY YER TO FLU	FCV-1T)	11.90 565.8 1.301E+06 .35 411.65 18.67 .334 1.301E+06 .624 .0021 .403 0.0	MPA K J/KG MPA K KG/SEC- J/KG M M/SEC W	- M** 2
VAPOR TEMPE ELEVATION (M)	DZQF	SUREMENT TV (K)	LOCATION IN	FORMATION		VAPOR TEMPE ELEVATION (M)	DZQF	ASUREMENT	LOCATION XE XA	NFORMAT	ION
	1.294					1.232			.486 .421		
				ORMATION LUX HEAT L	oss	WALL TEMPER	ATURE MEA	SUREMENT	LOCATION IN	FGRMAT I	ON HEAT LOSS
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232	423.9 425.2 436.3 451.7 595.8 767.7 801.4 822.5 842.8 854.8 852.1 838.3 805.5 815.5	348 362 370 378 393 410 421 432 442 451 461 	1.47E+ 1.46E+ 1.47E+ 1.44E+ 1.47E+ 1.44E+ 1.49E+ 1.58E+ 1.58E+ 4.61E+ 2.42E+ 2.75E+ 2.03E+ 1.71E+ 1.78E+ 1.78E+ 1.88E+	04 04 04 04 04 04 04 04 04 04	02 02	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	421.8 424.6 422.4 428.1 422.5 423.6 423.9 432.7 440.8 577.9 767.4 794.9 818.6 832.8 83.8 876.3 222.7 790.8	. 336 . 339 . 340 . 343 . 345 . 347 . 350 . 364 . 371 . 403 . 420 . 431 . 442 . 452 . 469 . 479 . 488 . 491	1.48i 1.48i 1.48i 1.47i 1.47i 1.47i 1.47i 1.47i 1.47i 1.47i 1.47i 1.52i 1.52i 1.52i 2.00i 4.46i 2.54i 2.18i 2.08i 2.04i 1.99i 1.75i 1.83i 1.79i	+04 +04 +04 +04 +04 +04 +04 +04 +04 +04	7.23E+02 4.30E+02
1.321 1.384 1.460 1.511 1.562 1.613	829.5 883.5 913.1 912.3 887.5 904.7 936.1 945.8 829.6 463.3 507.7 458.5	.504 .513 .519 .525 .531 .540 .549 .554 .579 .604	1.88E+ 1.88E+ 1.79E+ 1.80E+ 1.88E+	04 04 04 04 04 04 04 04 05 06		1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	815.9 867.7 897.2 896.4 871.5 889.3 921.0 940.9 901.5 444.8 477.9	. 498 .506 .515 .521 .527 .533 .542 .551 .561 .572 .580 .589	1.84E 1.90E 1.91E 1.81E 1.88E 1.87E 1.86E 3.82E 3.23E 1.69E 1.92E	+04 +04 +04 +04 +04 +04 +04 +04 +04 +04	

	INEL POS	-CHI EXPERT	MENT NO. 111			INEL PUS	H-CHE EAF	ENTINEAT NO		
POINT SERIA	L NO. 21	11.090 (Ti	ME= 415.50 SEC	1	POINT SERIA)
LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FROM ELEVAT VELOCI QUALIT	RE(PE-3) LIURE(IE-FO NTHALPY N: PRE MP LUX QUALITY ENTHALPY II: LON TY Y	1.	11.90 MPA 565.8 K 301E+06 J/KG .35 MPA 411.65 K 18.67 KG/SEC .334 301E+06 J/KG .624 M .0021 M/SEC .403 0.0 W	~M**2	LOOP PRESSI FCV TEMPER/ LHP INLET I TEST SECTION PRESSI SAI TI MASS I INLET INLET QUENCH FROM ELEVAL VELOC QUALLI NET LHP PO	JRE(PE-3) ATURE(TE-F NTHALPY DN: JRE MP LUX QUALITY ENTHALPY IT: ION TY JY JERNING TO FILL ATURE TO	CV-111	11,92 565.4 1.299£+06 .35 411.54 18.80 .334 1.299£+06 .697 .0020 .409	MPA K J/KG MPA K KG/SEC- J/KG M M/SEC	-M**2
			CATION INFORMA	TION	VAPOR TEMPI	RATURE ME	ASUREMENT	LOCATION	INFORMA	LION
ELEVATION (M)			XA		VAPOR TEMPI ELEVATION (M)	DZQF (M)	(K)	XE XA		
1.537	.913	667.4 .52	4 .420		1.537	.839	643.1	.520 .425		
WALL TEMPER ELEVATION (M)	RATURE MEAS TEMP (K)	SUREMENT LOC XE	HEAT FLUX W/M**2	HEAT LOSS W/M**2	WALL TEMPER ELEVATION (M)	RATURE MEA TEMP (K)	SUREMENT	LOCATION I HEAT W/M	FLUX **2	HEAT LOSS W/M**2
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	421.8 424.6 422.4 428.1 422.5	. 336 . 339 . 340 . 343 . 345 . 347 . 350 . 364 . 371 . 387 . 403 . 420 . 431 . 442 . 462 . 469 . 479 . 488 . 506 . 515 . 521 . 541 . 551 . 561 . 572 . 580	1.48E+04 1.48E+04 1.48E+04 1.48E+04 1.48E+04 1.47E+04 1.47E+04 1.47E+04 1.49E+04 1.52E+04 1.61E+04 2.00E+04 2.54E+04 2.18E+04 2.08E+04 1.75E+04 1.75E+04 1.83E+04 1.79E+04 1.90E+04 1.90E+04 1.90E+04 1.91E+04 1.84E+04 1.88E+04 1.88E+04 1.88E+04 1.88E+04 1.88E+04 1.88E+04 1.88E+04 1.88E+04 1.86E+04 3.82E+04 3.82E+04 1.69E+04 1.92E+04 1.92E+04 1.92E+04	7.23E+02 4.30E+02	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.816 1.918 1.994 2.070	421.3 424.2 422.2 427.5 422.1 423.2 423.1 430.6 441.8 437.1	. 3358 . 3388 . 3399 . 3442 . 347 . 349 . 363 . 370 . 378 . 385 . 394 . 409 . 425 . 437 . 457 . 464 . 474 . 483 . 486 . 494 . 501 . 517 . 523 . 529 . 538 . 547 . 564	1.47 1.48 1.48 1.50 1.48 1.49 1.52 1.51 1.65 1.90 4.34 2.52 2.17 2.06 1.99 1.78 1.85 1.85 1.85 1.85 1.93 1.93 1.93 1.93 1.93 1.93 1.93 1.93	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	4.81E+02 2.58E+02

436.4

.587

1.55E+04

INEL POST-CHE EXPERIMENT NO. 111

POINT SERIAL NO. 2111.110 (TIME= 487.50 SEC) POINT SERIAL NO. 2111, 120 (TIME= 523.50 SEC) LOOP PRESSURE(PE-3) 11.90 MPA LOOP PRESSURE(PE-3) 11.92 MPA FCV TEMPERATURE (TE-FCV-1T) 565.9 K FCV TEMPERATURE(TE-FCV-1T) 565.2 K LHP INLET ENTHALPY 1.302E+06 J/KG LHP INCET ENTHALPY 1.298E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE PRESSURE .35 MPA . 35 MPA 411.64 K 411.53 K SAT TEMP SAT TEMP MASS FLUX 18.72 KG/SEC-M**2 MASS FLUX 18.83 KG/SEC-M**2 INLET QUALITY . 335 INLET QUALITY . 333 INLET ENTHALPY INLET ENTHALPY 1.302E+06 J/KG 1.298E+06 J/KG QUENCH FRONT: QUENCH FRONT: .773 M ELEVATION ELEVATION .852 M .0022 M/SEC VELOCITY .0023 M/SEC VELOCITY QUALITY .419 QUALITY .424 NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XA ELEVATION DZQF IV XE XA XE (K) (M) (M) (K) (M) (M) 1.537 .764 022.4 .523 .435 1,537 . 684 595.9 .517 .438 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT LOSS ELEVATION XE XE W/M##2 W/M##2 W/M*#2 W/M##2 (M) (K) (M) (K) . 334 .013 421.4 1.48E+04 .013 421.2 1.47E+04 .336 1.48E+04 .051 423.6 .051 423.9 . 339 . 338 1.48E+04 . 339 1.48E+04 .063 421.7 1.48E+04 .063 422.0 . 341 . 343 .089 . 341 .089 427.0 1.48E+04 426.5 1.48E+04 . 114 . 345 421.6 1.46E+04 . 114 421.5 . 344 1.48E+04 . 140 422.0 . 348 1.47E+04 . 140 421.9 . 346 1.48E+04 422.8 422.9 .350 1.47E+04 . 165 . 348 1.47E+04 . 165 . 364 .317 . 362 .317 422.4 1.48E+04 421.9 1.48E+04 .371 . 370 . 394 428.1 1.51E+04 . 394 426.6 1.49E+04 .379 1.51E+04 .470 431.3 . 377 .470 433.9 1.52E+04 1.57E+04 .546 431.3 .546 435.1 . 386 . 384 1.53£+04 . 394 .391 .622 428.7 1.58E+04 .622 425.2 1.52E+04 .698 457.9 .403 2.19E+04 .698 442.9 .399 1.66E+04 4.85E+04 .775 638.7 .420 .775 447.6 .408 2.08E+04 .851 .437 2.55E+04 .851 611.6 .423 4.30E+04 763.0 .927 787.0 .449 2.15E+04 .927 755.7 .440 2.81E+04 1.003 793.5 .459 2.05E+04 1.003 769.2 .452 2.16E+04 1.067 760.5 .467 1.84E+04 2.95E+02 1.067 744.4 .460 1.91E+04 .477 1.156 791.1 .1.82E+04 6.86E+02 1.156 774.0 .471 1.92E+04 1.232 755.3 .486 1.88E+04 1.232 737.1 .480 1.83E+04 1.257 764.3 .489 1.97E+04 1.257 745.5 .483 1.96E+04 1.321 786.3 .497 1.90E+04 1.321 770.2 .491 1.90E+04 1.96E+04 1.384 834.7 .505 1.384 816.7 .498 1.96E+04 1.460 865.0 .514 1.96E+04 1.460 847.4 .508 1.95E+04 1.511 864.5 .520 1.85E+04 1.511 847.3 .514 1.86E+04 .526 1.94E+04 1.562 840.5 1.562 823.8 .520 1.95E J4 1.613 858.6 .533 1.92E+04 1.613 842.3 .526 1.94E+04 .542 1.91E+04 1.689 892.0 1.689 876.5 .535 1.92E+04 .551 1.97E+04 1.765 911.1 1.765 891.7 .545 2.05E+04 .559 2.98E+04 1.816 465.2 1.816 442.2 .551 1.53E+04 445.5 .567 1.63E+04 1.867 1.867 439.7 .556 1.56E+04 1.910 433.5 .572 1.53E+04 1.918 431.1 .560 1.51E+04 1.994 450.9 .579 1.64E+04 1.59E+04 1.994 444.1 .568

2.070

433.2

.575

1.53E+04

INEL POST-CHE EXPERIMENT NO. 111

847.8

POINT SERIAL NO. 2113.010 (TIME= 86.50 SEC)

LOOP PRESSURE(PE-3) 15.35 MPA FCV TEMPERATURE (TE-FCV-11) 589.8 K LHP INLET ENTHALPY 1.433E+06 J/KG TEST SECTION: PRESSURE .37 MPA SAT TEMP 414.02 K MASS FLUX 43.09 KG/SEC-M**2 INLET QUALITY . 393 INLET ENTHALPY 1.433E+06 J/KG QUENCH FRONT: ELEVATION .113 M ".0075 M/SEC VELOCITY QUALITY .422 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 1.424 710.6 .616 .478

			CATION INFORMAT	
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	463.8	. 394	3.07E+04	
.051	537.7	. 399	6.83E+04	
.063	489.8	.401	7.46E+04	
.089	548.9	.410	1.82E+05	
. 114	663.3	.422	1.63E+05	
, 140	779.4	. 433	1.35E+05	
. 165	762.3	, 440	7.068+04	
. 317	867.0	. 468	6.01E+04	
. 394	919.4	.480	5.978+04	
.470	942.8	.492	5.60E+04	
.546	954.9	.504	5.25E+04	
.622	957.7	.515	5.26E+04	
.698	967.2	.525	4.86E+04	
.775	972.0	.536	4.868+04	
.851	977.0	.546	4.49E+04	
.927	971.1	.555	4.16E+04	
1.003	922.0	.563	3.43E+04	
1.067	814.6	.567	1.64E+04	
1.156	872.4	.572	2.69E+04	
1.232	831.1	.579	3.67E+04	
1.257	820.7	.582	5.08E+04	
1.321	856.2	.590	4.11E+04	
1.384	951.0	.598	5.11E+04	
1.461	972.0	.609	5.11E+04	
1.511	970.3	.616	4.83E+04	
1.562	947.4	.624	6.67E+04	
1.613	968.4	.633	6.04E+04	
1.689	992.7	. 645	5.27E+04	
1.765	991.6	.655	4.73E+04	
1.816	969.5	.662	4.11E+04	
1.867	935.4	.667	4.19E+04	
1.918	909.7	.673	3.82E+04	
1.994	908.0	.680	2.74E+04	
Table on Table on	AND RESIDENCE OF THE PARTY OF T			

.684

1.58E+04

POINT 5	SERIAL	NO.	3113.010	(TIME=	86 50 SEC1

LOOP PRESSURE (PE-3) 15.35 MPA FCV TEMPERATURE (TE-FCV-IT) 589.8 K LHP INLET ENTHALPY 1.433E+06 J/KG TEST SECTION: .37 MPA PRESSURE SAT TEMP 414.02 K MASS FLUX 43.09 KG/SEC-M**2 INLET QUALITY . 393 INLET ENTHALPY 1.433E+06 J/KG QUENCH FRONT: ELEVATION . 113 M VELOCITY .0075 M/SEC .422 QUALITY NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.841 1.729 796.5 .662 .481

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	463.8	. 394	3.07E+04	
.051	537.7	. 399	6.83E+04	
.063	489.8	.401	7.461+04	
.089	548.9	.410	1.821+05	
. 114	663.3	.422	1.63E+05	
. 140	779.4	. 433	1.35E+05	
. 165	762.3	, 440	7.06E+04	
. 317	867.0	.468	6.018+04	
. 394	919.4	.480	5.97E+04	
.470	942.8	.492	5.60E+04	
.546	954.9	.504	5.25E+04	
.622	957.7	.515	5.26E+04	
.698	967.2	.525	4.86E+04	
.775	972.0	.536	4.86E+04	
.851	977.0	.546	4.49E+04	
.927	971.1	.555	4.16E+04	
1.003	922.0	.563	3.43E+04	
1.067	814.6	.567	1.64E+04	
1.156	872.4	.572	2.69E+04	
1.232	831.1	.579	3.67E+04	
1.257	820.7	.582	5.08E+04	
1.321	856.2	.590	4.11E+04	
1.384	951.0	.598	5.11E+04	
1.460	972.0	. 609	5.11E+04	
1.511	970.3	.616	4.83E+04	
1.562	947.4	.624	6.67E+04	
1.613	968.4	.633	6.04E+04	
1.689	992.7	.645	5.27E+04	
1.765	991.6	.655	4.73E+04	
1.816	969.5	.662	4.11E+04	
1.867	935.4	.667	4.19E+04	
1.918	909.7	.673	3.82E+04	
1.994	908.0	.680	2.74E+04	
2.070	847.8	.684	1.58E+04	

.664

.669

3.53E+04

2.82E+04

1.72E+04

892.9

897.7

846.4

1.918

1.994

2.070

```
POINT SERIAL NO. 3113.020 (TIME= 93.50 SEC)
POINT SERIAL NO. 2113.020 (TIME= 93.50 SEC)
                                                                                                              15.37 MPA
                                   15.37 MPA
                                                                          LOOP PRESSURE(PE-3)
LOOP PRESSURE(PE-3)
                                                                          FCV TEMPERATURE (TE-FCV-IT)
                                                                                                              588.9 K
FCV TEMPERATURE (TE-FCV-1T)
                                  588.9 K
                                                                                                          1.428E+06 J/KG
LHP INLET ENTHALPY
                                                                          LHP INLET ENTHALPY
                               1.428E+06 J/KG
TEST SECTION:
                                                                          TEST SECTION:
                                                                                                                .38 MPA
                                                                               PRESSURE
     PRESSURE
                                     . 38 MPA
                                                                               SAT TEMP
                                                                                                            414.47 K
                                  414.47 K
     SAT TEMP
                                                                                                             42.00 KG/SEC-M**2
                                  42.00 KG/SEC-M**2
                                                                               MASS FLUX
     MASS FLUX
                                    . 389
                                                                               INLET QUALITY
                                                                                                               . 389
     INLET QUALITY
                                                                                                          1.428E+06 J/KG
     INLET ENTHALPY
                               1.428E+06 J/KG
                                                                               INLET ENTHALPY
                                                                          QUENCH FRONT:
QUENCH FRONT:
                                                                                                               .165 M
                                     . 165 M
                                                                               ELEVATION
     ELEVATION
                                   .0091 M/SEC
                                                                                                              .0091 M/SEC
     VELOCITY
                                                                               VELOCITY
                                                                                                               .421
                                                                               QUALITY
     QUALITY
                                    .421
                                                                                                                0.0 W
NET LHP POWER TO FLUID
                                     0.0 %
                                                                          NET LHP POWER TO FLUID
                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             DZQF
                      TV
                               XE XA
                                                                          ELEVATION
                                                                                      DZQF
                                                                                                 TV
                                                                                                         XE XA
                                                                                                 (K)
 (M)
             (M)
                       (K)
                                                                            (M)
                                                                                        (M)
1.537
            1.372
                                                                           1.841
                                                                                      1.677
                                                                                                765.4
                                                                                                        .647 .481
                     690.6
                              .606 .477
                                                                          WALL TEMPERATUR" MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
              TEMP
                                                                                                                              HEAT LOSS
                                                                          ELEVATION
                                                                                         TEMP
                                                                                                     XE
                                                                                                               HEAT FLUX
ELEVATION
                          XE
                                    HEAT FLUX
                                                   HEAT LOSS
                                                                                                                M/M**2
                                                                                                                               W/M**2
                                     W/M##2
                                                    W/M##2
                                                                            (M)
                                                                                          (K)
 (M)
               (K)
                                                                                                    .390
                                                                                                               2.40E+04
                                                                                         451.5
  .013
              451.5
                         .390
                                    2.40E+04
                                                                            .013
                                                                                                    . 394
                         . 394
                                                                                                               4.30E+04
  .051
                                    4.30E+04
                                                                            .051
                                                                                         502.8
              502.8
                         . 395
                                                                                                    . 395
  .063
              456.9
                                    3.17E+04
                                                                            .063
                                                                                         456.9
                                                                                                               3.17E+04
                                                                                                               5.08E+04
  .089
              491.3
                          .398
                                    5.08E+04
                                                                            .089
                                                                                         491.3
                                                                                                    .398
                                                                                                               8.09E+04
                                    8.09E+04
                                                                                         486.2
                                                                                                    .403
  .114
              486.2
                          .403
                                                                            . 114
                                                                                         499.6
                                                                                                     .411
                                                                                                               1.51E+05
              499.6
                                    1.51E+05
  . 140
                          .411
                                                                            . 140
                                                                                                               1.15E+05
                          .421
                                    1.15E+05
                                                                                         620.8
                                                                                                    .421
  . 165
              620.8
                                                                            . 165
  .317
              831.9
                          .458
                                    5.85E+04
                                                                            .317
                                                                                         831.9
                                                                                                     .458
                                                                                                               5.85E+04
                                                                                                               5.76E+04
  . 394
              885.2
                          .471
                                    5.76E+04
                                                                            . 394
                                                                                         885.2
                                                                                                     .471
                                    5.45E+04
                                                                                         911.7
                                                                                                     .483
                                                                                                               5. 45E+04
  .470
              911.7
                          .483
                                                                            .470
                                                                                                     . 494
                                    5.11E+04
                                                                                         926.6
                                                                                                               5.11E+04
  .546
              926.6
                          .494
                                                                            .546
                                                                                                     .505
                                                                                                               5.09E+04
  .622
              929.5
                          .505
                                    5.09E+04
                                                                            .622
                                                                                         929.5
                          .516
  .698
              941.8
                                    4.74E+04
                                                                            .698
                                                                                         941.8
                                                                                                     .516
                                                                                                               4.74E+04
  .775
              946.8
                          .526
                                    4.73E+04
                                                                            .775
                                                                                         946.8
                                                                                                     .526
                                                                                                               4.73E+04
              954.3
  .851
                          .536
                                    4.42E+04
                                                                            .851
                                                                                         954.3
                                                                                                     .536
                                                                                                               4.42E+04
  .927
              950.4
                          .545
                                    4.20E+04
                                                                            .927
                                                                                         950.4
                                                                                                     .545
                                                                                                               4.20E+04
 1.003
              906.4
                          .554
                                    3.56E+04
                                                                           1,003
                                                                                         906.4
                                                                                                     . 554
                                                                                                               3.56E+04
 1.067
              811.4
                          .559
                                    2.06E+04
                                                                           1,067
                                                                                         811.4
                                                                                                     .559
                                                                                                               2.06E+04
                                                                                                               2.78E+04
 1.156
              862.2
                          .565
                                    2.78E+04
                                                                           1.156
                                                                                         862.2
                                                                                                     .565
                          .572
                                                                                                    .572
 1.232
              811.9
                                    3.72E+04
                                                                           1.232
                                                                                         811.9
                                                                                                               3.72E+04
                                                                                                     .575
 1.257
              796.8
                          .575
                                    4.03E+04
                                                                           1.257
                                                                                         796.8
                                                                                                               4.03E+04
 1.321
              837.4
                          .582
                                    3.66E+04
                                                                           1.321
                                                                                         837.4
                                                                                                     .582
                                                                                                               3.66E+04
                                    4.67E+04
 1.384
              924.9
                          .589
                                                                           1.384
                                                                                         924.9
                                                                                                     .589
                                                                                                               4.671+04
 1.460
                          .599
                                    4.51E+04
                                                                                                    .599
                                                                                                               4.61E+04
              946.5
                                                                           1.460
                                                                                         946.5
              946.0
                                    4.39E+04
 1.511
                          .606
                                                                           1.511
                                                                                         946.0
                                                                                                     .606
                                                                                                               4.39E+04
 1.562
              912.5
                          .613
                                    5.53E+04
                                                                           1.562
                                                                                         912.5
                                                                                                    .613
                                                                                                               5.53E+04
              937.6
                                    5.16E+04
 1.613
                          .620
                                                                           1.613
                                                                                         937.6
                                                                                                     .620
                                                                                                               5.16E+04
 1.689
              966.5
                          .631
                                    4.71E+04
                                                                           1.689
                                                                                         966.5
                                                                                                     .631
                                                                                                               4.71E+04
 1.765
              969.0
                          . 641
                                    4.27E+04
                                                                           1.765
                                                                                         969.0
                                                                                                     .641
                                                                                                               4.27E+04
 1.816
              950.2
                          .647
                                    3.81E+04
                                                                                         950.2
                                                                                                     .647
                                                                           1.816
                                                                                                               3.81E+04
 1.867
              915.5
                          .652
                                    3.98E+04
                                                                           1.867
                                                                                         915.5
                                                                                                     .652
                                                                                                               3.98E+04
```

1.918

1.994

2.070

892.9

897.7

846.4

.658

.664

.669

3.53E+04

2.82E+04

1.722+04

842.3

2.070

.655

.660

2.91E+04

1.99E+04

2.070

842.3

.660

1.99E+04

```
POINT SERIAL NO. 2113.030 (TIME= 101.50 SEC)
                                                                       POINT SERIAL NO. 3113.030 (TIME= 101.50 SEC)
                                 15.35 MPA
                                                                      LOOP PRESSURE(PE-3)
                                                                                                         15.35 MPA
LOOP PRESSURE(PE-3)
                                                                                                      589.4 K
                                                                       FCV TEMPERATURE (TE-FCV-11)
FCV TEMPERATURE (TE-FCV-1T)
                                 589.4 K
LHP INLET ENTHALPY
                             1.431E+06 J/KG
                                                                      LHP INLET ENTHALPY
                                                                                                    1.431E+06 J/KG
TEST SECTION:
                                                                      TEST SECTION:
                                  .37 MPA
     PRESSURE
                                                                            PRESSURE
                                                                                                          .37 MPA
                                                                                                      414.35 K
     SAT TEMP
                               414.35 K
                                                                            SAT TEMP
     MASS FLUX
                              41.25 KG/SEC-M**2
                                                                           MASS FLUX
                                                                                                      41.25 KG/SEC-M**2
     INLET QUALITY
                                 . 391
                                                                            INLET QUALITY
                                                                                                         . 391
                                                                            INLET ENTHALPY
     INLET ENTHALPY
                             1,431E+06 J/KG
                                                                                                    1.431E+06 J/KG
QUENCH FRONT:
                                                                      QUENCH FRONT:
     ELEVATION
                                   .237 M
                                                                           ELEVATION
                                                                                                          .237 M
     VELOCITY
                                 .0091 M/SEC
                                                                           VELOCITY
                                                                                                         .0091 M/SEC
     QUALITY
                                 .426
                                                                           QUALITY
                                                                                                         .426
NET LHP POWER TO FLUID
                                   0.0 W
                                                                      NET LHP POWER TO FLUID
                                                                                                          0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
          DZQF
                     TV
                            XE XA
                                                                      ELEVATION DZQF
                                                                                            TV
                                                                                                    XE XA
 (M)
            (M)
                     (K)
                                                                       (M)
                                                                                   (M)
                                                                                            (K)
 1.537
                    664.2 .597 .480
            1.299
                                                                       1.841 1.604
                                                                                         745.7 .637 .481
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                     XE
                                                HEAT LOSS
                                  HEAT FLUX
                                                                      ELEVATION TEMP
                                                                                           XE
                                                                                                         HEAT FLUX
                                                                                                                        HEAT LOSS
                                   W/M##2
 (M)
              (K)
                                                 M/M##5
                                                                        (M)
                                                                                                          W/M**2
                                                                                     (K)
                                                                                                                         W/M##2
  .013
                        .392
             443.2
                                  2.10E+04
                                                                                               . 392
                                                                        .013
                                                                                    443.2
                                                                                                         2.10E+04
                        .395
             479.0
                                                                        .051
                                                                                               .395
  .051
                                  3.40E+04
                                                                                    479.0
                                                                                                         3.40E+04
                        . 396
                                                                                               .396
  .063
             444.7
                                  2.37E+04
                                                                                                         2.37E+04
                                                                        .063
                                                                                    444.7
                                                                                               .398
  .089
             469.4
                        . 398
                                  3.11E+04
                                                                        .089
                                                                                    469.4
                                                                                                         3.11E+04
  .114
             458.3
                         .400
                                  3.38£+04
                                                                                               ,400
                                                                        . 114
                                                                                    458.3
                                                                                                         3.38E+04
  .140
                         .403
                                  6.248+04
                                                                        . 140
             456.2
                                                                                    456.2
                                                                                               .403
                                                                                                         6.24E+04
              491.1
                         .409
                                  8.04E+04
                                                                        . 165
                                                                                    491.1
  . 165
                                                                                               . 409
                                                                                                         8.04E+04
  .317
              766.0
                         . 446
                                  9.04E+04
                                                                                                .446
                                                                        .317
                                                                                    766.0
                                                                                                         9.04E+04
  . 394
             846.3
                         .462
                                  5.81E+04
                                                                        .394
                                                                                               .462
                                                                                    846.3
                                                                                                         5.81E+04
  .470
                                  5.43E+04
             876.3
                        .474
                                                                        .470
                                                                                    876.3
                                                                                               .474
                                                                                                          5.43E+04
  .546
             894.4
                         .486
                                  5.08E+04
                                                                        .546
                                                                                    894.4
                                                                                               .486
                                                                                                          5.08E+04
  .622
             898.0
                         .497
                                  5.00E+04
                                                                        .622
                                                                                    898.0
                                                                                               .497
                                                                                                          5.00E+04
  .698
                         .508
                                                                        .698
                                                                                               .508
             913.2
                                  4.69E+04
                                                                                    913.2
                                                                                                         4.69E+04
  .775
                         .518
                                  4.64E+04
                                                                                               .518
             918.7
                                                                        .775
                                                                                    918.7
                                                                                                         4.64E+04
  .851
                        .528
             929.0
                                  4.34E+04
                                                                        .851
                                                                                    929.0
                                                                                               .528
                                                                                                         4.34E+04
                         .537
  .927
             926.5
                                  4.18E+04
                                                                        .927
                                                                                    926.5
                                                                                               .537
                                                                                                         4.18E+04
 1.003
             887.2
                         .546
                                  3.64E+04
                                                                       1.003
                                                                                    887.2
                                                                                               .546
                                                                                                         3.64E+04
 1.067
             804.0
                         .551
                                  2.32E+04
                                                                                               .551
                                                                       1.067
                                                                                    804.0
                                                                                                         2.32E+04
 1.156
             849.4
                         .558
                                  2.88E+04
                                                                                               .558
                                                                       1.156
                                                                                    849.4
                                                                                                         2.88E+04
                        .565
 1.232
              791.3
                                  3.56E+04
                                                                       1.232
                                                                                    791.3
                                                                                               .565
                                                                                                         3.56E+04
 1.257
              776.4
                         .568
                                  3.62E+04
                                                                       1.257
                                                                                    776.4
                                                                                               .568
                                                                                                         3.62E+04
                        .574
 1.321
             818.5
                                  3.44E+04
                                                                                               .574
                                                                       1.321
                                                                                    818.5
                                                                                                         3.44E+04
 1.384
                        .581
             898.1
                                  4.44E+04
                                                                       1.384
                                                                                    898.1
                                                                                               .581
                                                                                                         4.44E+04
                        .591
 1,460
             920.4
                                  4.40E+04
                                                                                               .591
                                                                       1.460
                                                                                    920.4
                                                                                                         4.40E+04
 1.511
             920.8
                        .597
                                  4.21E+04
                                                                       1.511
                                                                                    920.8
                                                                                               .597
                                                                                                         4.21E+04
 1.562
             879.7
                                  5.02E+04
                        .604
                                                                       1.562
                                                                                    879.7
                                                                                               .604
                                                                                                         5.02E+04
 1.613
             907.5
                                  4.80E+04
                        .611
                                                                       1.613
                                                                                    907.5
                                                                                               .611
                                                                                                         4.80E+04
 1.689
             939.9
                                  4.47E+04
                        .622
                                                                       1.689
                                                                                    939.9
                                                                                               .622
                                                                                                         4.47E+04
 1.765
             945.7
                        .631
                                  4.10E+04
                                                                       1.765
                                                                                    945.7
                                                                                               .631
                                                                                                         4.10E+04
 1.816
             929.6
                        .637
                                  3.71E+04
                                                                                    929.6
                                                                       1.816
                                                                                               .631
                                                                                                         3.71E+04
 1.867
             893.6
                        .642
                                  3.91E+04
                                                                                               .642
                                                                       1.867
                                                                                    893.6
                                                                                                         3.91E+04
 1.918
             874.6
                        .648
                                  3.50E+04
                                                                       1.918
                                                                                    874.6
                                                                                               .648
                                                                                                         3.50E+04
 1.994
             885.0
                        .655
                                  2.91E+04
                                                                       1.994
```

VELOCITY QUALITY NET LHP POWER TO FLUID

LOOP PRESSURE(PE-3,

LHP INLET ENTHALPY

PRESSURE

ELEVATION

TEST SECTION:

QUENCH FRONT:

1.511

1.562

1.613

1.689

1.765

1.816 1.867

1.918

1.994 2,070

FCV TEMPERATURE (TE-FCV-1T)

.0099 M/SEC .432 0.0 W

HEAT FLUX

4.13E+04

4.64E+04

4.56E+04

4.32E+04

4.03E+04

3.70E+04

3.84E+04 3.51E+04

3.00E+04

2.24E+04

HEAT LOSS

15.37 MPA

.37 MPA

41.36 KG/SEC-M**2

590.1 K

1.435E+06 J/KG

414.28 K

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZCF TV XE XA (M) (K) (M)

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

INEL POST-CHE EXPERIMENT NO. 113

POINT SERIAL NO. 2113.040 (TIME= 109.50 SEC)

1.537 1.221 634.8 .597 .491

896.1

849.6

879.0

914.2

923.0

909.1

872.1

856.3

871.7

836.5

ELEVATION TEMP XE W/M##2 W/M##2 (M) (K) .013 436.9 . 394 1,91E+04 . 396 .051 461.4 2.72E+04 436.7 .397 1.96E+04 .063 .399 2.30E+04 .089 456.1 2.22E+04 445.1 .400 . 114 . 140 .402 2.33E+04 432.8 . 165 440.4 .404 3.76E+04 9.19E+04 . 317 646.4 .433 1.08E+05 . 394 786.0 .455 .470 840.3 473 5.47E+04 862.1 . 484 5.06E+04 .546 4.93E+04 .622 866.6 .495 884.8 .506 4.64E+04 .698 . 775 890.9 .516 4.56E+04 .851 993.9 .525 4.27E+04 4.15E+04 .927 902.6 .535 1.003 .543 3.68E+04 867.4 1,067 795.0 .549 2.51E+04 1.156 835.9 .556 2.96E+04 1.232 770.0 .563 3.80E+04 1.257 752.5 .566 4.77E+04 1.321 800.7 .574 3.35E+04 1.384 872.1 .581 4.35E+04 1.460 895.0 .590 4.31E+04

.597

.603

.610

.619

.629

.634

.640

.645 .652

.658

POINT SERIAL NO. 3113.040 (TIME= 109.50 SEC)

15.37 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 590.1 K 1.435E+06 J/KG LHP INLET ENTHALPY TEST SECTION: PRESSURE . 37 MPA 414.28 K SAT TEMP 41.36 KG/SEC-M**2 MASS FLUX INLET QUALITY . 393 INLET ENGLALPY 1.435E+06 J/KG QUENCH FRONT: ELEVATION .316 M VELOCITY .0099 M/SEC QUALITY .432 NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K) (M)

0.0 W

1.525 720.7 .634 .488 1.841

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	436.9	. 394	1.91E+04	
.051	461.4	. 396	2.72E+04	
.063	436.7	. 397	1.96E+04	
.089	456.1	. 399	2.30E+04	
. 114	445.1	. 400	2.22E+04	
. 140	432.8	.402	2.33E+04	
. 165	41,0.4	.404	3.76E+04	
. 317	646.4	.433	9.19E+04	
. 394	786.0	.455	1.08E+05	
.470	840.3	.473	5.47E+04	
.546	862.1	. 484	5.06E+04	
.622	866.6	. 495	4.93E+04	
.698	884.8	.506	4.64E+04	
.775	890.9	.516	4.56E+04	
.851	903.9	.525	4.27E+04	
.927	902.6	.535	4.15E+04	
1.003	867.4	.543	3.68E+04	
1.067	795.0	.549	2.51E+04	
1.156	835.9	.556	2.96E+04	
1.232	770.0	.563	3.80E+04	
1.257	752.5	.566	4.77E+04	
1.321	800.7	.574	3.35E+04	
1.384	872.1	.581	4.35E+04	
1.460	895.0	.590	4.31E+04	
1.511	896.1	.597	4.13E+04	
1.562	849.6	.603	4.64E+04	
1.613	879.0	.610	4.56E+04	
1.689	914.2	.619	4.32E+04	
1.765	923.0	.629	4.03E+04	
1.816	909.1	.634	3.70E+04	
1.867	872.1	. 640	3.84E+04	
1.918	856.3	.645	3.51E+04	
1.994	871.7	.652	3.00E+04	
2.070	836.5	.658	2.24E+04	

						THEE TOO	I-CHI EXPE	MINEMI NO. 113	
POINT SERI	AL NO. 211	3.050 (TIME= 115.50 SE	c)	POINT SEE	HAL NO. 31	13.050 (TIME= 115.50 SEC)
LOOP PRESS	URE(PE-3)		15.36 MPA		LOOP PRES	SURE(PE-3)		15.36 MPA	
FCV TEMPER	ATURE (TE-FC	V-11)	590.7 K		FCV TEMPE	RATURELTE-F	CV-1T1	590.7 K	
LHP INLET	ENTHALPY		1.439E+06 J/KG		LHP IN ET	ENTHALPY		1.439E+06 J/KG	
TEST SECTI	ON:				TEST SECT	ION:			
PRESS	URE		.37 MPA		PRES	SURE		.37 MPA	
SAT I	EMP		414.21 K		SAT	TEMP		414.21 K	
MASS	FLUX		41.16 KG/SE	C-M**2	MASS	FLUX		41,16 KG/SEC	-M**2
INLET	QUALITY		. 395		INLE	T QUALITY		. 395	
INLET	ENTHALPY		1.439E+06 J/KG		INLE	T ENTHALPY		1.439E+06 J/KG	
TOFNCH FRO	NI:				QUENCH FR	ONT:			
VELOC	ITON		.3/3 M		ELEV	ATION		.373 M	
OHALL	TV		.0087 M/SEC		VELO	CITY		.0087 M/SEC	
IFT THE PO	WER TO FILL	0	.440		QUAL	114		. 440	
ici ciii ro	MER TO FEDI		0.0 W		NET LIP P	OWER TO FLU	10	0.0 W	
VAPOR TEMP	ERATURE MEA	SUREMENT	LOCATION INFORM	ATION	MAT RCAN	PERATURE ME	ASUREMENT I	OCATION INFORMA	1108
(M)	(M)	(K)	01. 00		(M)	(M)	(K)	KE. XA	
1.537	1.164	607.1 .	599 .504		I COP PRES FCV TEMPE LHP IN ET TEST SECT PRES SAT MASS INLE INLE QUENCH FF ELEV VELO QUAL NET LHP P VAPOR TEM ELEVATION (M) 1.841	1,468	700.3 .6	537 .498	
ALL TEMPE	RATURE MEAS	UREMENT L	OCATION INFORMA	TION	WALL TEMP	FRATURE MEAS	SURFMENT 10	CATION INFORMAT	LON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XF	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	H/M**2	(M)	(K)		W/M**2	W/M##2
.013	433.3	. 396	1.80£+04		.013	433.3	. 396	1.80E+04	
.051	452.2	. 398	2.378+04		.051	452.2	. 398	2.37E+04	
.003	432.9	. 199	1.82E+04		.063	432.9	. 399	1.82E+04	
.009	430.1	.400	2.06E+04		.089	450.1	.400	2.06E+04	
140	439.7	.402	1.978+04		. 114	439.7	, 402	1.97E+04	
165	427.3	.403	1.901+04		. 140	427.3	.403	1.90E+04	
317	635.0	404	7.991.404		. 165	433.9	. 404	1.99E+04	
394	761 3	hh6	1 215405		. 31/	535.9	.425	7.21E+04	
470	812.2	467	6 635+04		. 394	761.3	. 446	1.21E+05	
.546	837.7	480	5 065+04		.470	812.2	.467	6.63E+04	
.622	843.3	490	h 80F+0h		. 546	837.7	.480	5.06E+04	
.698	863.6	501	h 59F+0h		,022	843.3	. 490	4.89E+04	
.775	870.3	.511	4.50F+04		. 696	803.0	.501	4.59E+04	
.851	885.4	.521	4.22E+04		851	885 4	.511	4.50E+04	
.927	884.9	.530	4.11E+04		927	884 0	530	4.221.404	
1.003	852.4	.538	3.71E+04		1.003	852 h	530	4.11E+04	
1.067	787.3	.544	2.61E+04		1.067	787 3	5hh	2 615+04	
1.156	825.3	.551	3.02E+04		1.156	825.3	551	3 025+04	
1.232	751.4	.559	4.22E+04		1.232	751.4	559	h 22F+0h	
1.257	722.8	.563	6.34E+04		1.257	722.8	563	6 3hF+0h	
1.321	782.4	.574	5.55E+04		1.321	782.4	.574	5.55E+04	
	852.4	.583	4.42E+04		1.384	852.4	.583	4.42E+04	
1.384	8/5.8	.593	4.38E+04		1.460	875.8	. 593	4.38E+04	
1.384	0.2.2		14 16F+04		1.511	877.5	,599	4.16E+04	
1.384 1.460 1.511	877.5	.599	4.101.04						
1.384 1.460 1.511 1.562	877.5 828.5	.606	4.45E+04		1.562	828.5	.606	4.45E+04	
1.384 1.460 1.511 1.562 1.613	877.5 828.5 858.4	.606	4.45E+04 4.47E+04		1.562	828.5 858.4	.606	4.45E+04 4.47E+04	
1.384 1.460 1.511 1.562 1.613 1.689	877.5 828.5 858.4 895.3	.606 .612 .622	4.45E+04 4.47E+04 4.29E+04		1.562 1.613 1.689	828.5 858.4 895.3	.606 .612 .622	4.45E+04 4.47E+04 4.29E+04	
1.384 1.460 1.511 1.562 1.613 1.689 1.765	877.5 828.5 858.4 895.3 906.0	.606 .612 .622	4.45E+04 4.47E+04 4.29E+04 4.04E+04		1,562 1,613 1,689 1,765	828.5 858.4 895.3 906.0	.606 .612 .622 .631	4.45E+04 4.47E+04 4.29E+04 4.04E+04	
1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816	877.5 828.5 858.4 895.3 906.0 893.5	.599 .606 .612 .622 .631	4.45E+04 4.47E+04 4.29E+04 4.04E+04 3.74E+04		1.562 1.613 1.689 1.765 1.816	828.5 858.4 895.3 906.0 893.5	.606 .612 .622 .631 .637	4.45E+04 4.47E+04 4.29E+04 4.04E+04 3.74E+04	
1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867	877.5 828.5 858.4 895.3 906.0 893.5 856.1	.599 .606 .612 .622 .631 .637	4.45E+04 4.47E+04 4.29E+04 4.04E+04 3.74E+04 3.82E+04		1.562 1.613 1.689 1.765 1.816	828.5 858.4 895.3 906.0 893.5 856.1	.606 .612 .622 .631 .637	4.45E+04 4.47E+04 4.29E+04 4.04E+04 3.74E+04 3.82E+04	
1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867	877.5 828.5 858.4 895.3 906.0 893.5 856.1 842.3	.599 .606 .612 .622 .631 .637 .642	4. 45E+04 4. 47E+04 4. 29E+04 4. 04E+04 3. 74E+04 3. 82E+04 3. 56E+04		1.562 1.613 1.689 1.765 1.816 1.867	828.5 858.4 895.3 906.0 893.5 856.1 842.3	.606 .612 .622 .631 .637 .642	4,45E+04 4,47E+04 4,29E+04 4,04E+04 3,74E+04 3,82E+04 3,56E+04	
1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	877.5 828.5 858.4 895.3 906.0 893.5 856.1 842.3 861.0	. 599 . 606 . 612 . 622 . 631 . 637 . 642 . 648	4. 45E+04 4. 47E+04 4. 29E+04 4. 04E+04 3. 74E+04 3. 82E+04 3. 56E+04 3. 11E+04		1.841 WALL TEMPELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	828.5 858.4 895.3 906.0 893.5 856.1 842.3 861.0	.606 .612 .622 .631 .637 .642 .648	4.45E+04 4.47E+04 4.29E+04 4.04E+04 3.74E+04 3.56E+04 3.11E+04	

1,994

2.070

830.1

851.5

824.5

.652

.660

.666

3.65E+04

3.20E+04

2.61E+04

```
POINT SERIAL NO. 2113.060 (TIME= 120.50 SEC)
                                                                           POINT SERIAL NC. 3113.060 (TIME= 120.50 SEC)
LOOP PRESSURE(PE-3)
                                                                           LOOP PRESSURE (PE-3)
                                    15.36 MPA
                                                                                                               15.36 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                   591.2 K
                                                                           FCV TEMPERATURE (TE-FCV-1T)
                                                                                                               591.2 K
LHP INLET ENTHALPY
                                1.442E+06 J/KG
                                                                           LHP INLET ENTHALPY
                                                                                                           1.442E+06 J/KG
TEST SECTION:
                                                                           TEST SECTION:
     PRESSURE
                                      .37 MPA
                                                                                PRESSURE
                                                                                                                 .37 MPA
     SAT TEMP
                                   414.08 K
                                                                                SAT TEMP
                                                                                                              414.08 K
     MASS FLUX
                                   40.86 KG/SEC-M**2
                                                                                MASS FLUX
                                                                                                              40.86 KG/SEC-M**2
     INLET QUALITY
                                                                                INLET QUALITY
                                    . 396
                                                                                                                . 396
     INLET ENTHALPY
                                1.442E+06 J/KG
                                                                                INLET ENTHALPY
                                                                                                           1.442E+06 J/KG
QUENCH FRONT:
                                                                           QUENCH FRONT:
     ELEVATION
                                     .417 M
                                                                                ELEVATION
                                                                                                                .417 M
     VELOCITY
                                    .0087 M/SEC
                                                                                VELOCITY
                                                                                                               .0087 M/SEC
     QUALITY
                                    444
                                                                                QUALITY
                                                                                                                141414
NET LHP POWER TO FLUID
                                     0.0 W
                                                                           NET LHP POWER TO FLUID
                                                                                                                 0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                           VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             DZQF
                       TV
                               XE XA
                                                                           ELEVATION
                                                                                        DZQF
                                                                                                  TV
                                                                                                          XE XA
  (M)
             (M)
                       (K)
                                                                            (M)
                                                                                        (M)
                                                                                                  (16)
 1.537
            1,120
                     584.3
                             .603 .517
                                                                           1.841
                                                                                       1,425
                                                                                                 682.7 .641 .508
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                           WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                           XE
                                    HEAT FLUX
                                                   HEAT LOSS
                                                                           ELEVATION
                                                                                         TEMP
                                                                                                      XE
                                                                                                                HEAT FLUX
                                                                                                                               HEAT LOSS
                                                    W/M*#2
  (M)
               (K)
                                     W/M##2
                                                                                          (K)
                                                                                                                 W/M##2
                                                                                                                                W/M##2
                                                                             (M)
                                                                                                     .397
  .013
               430.8
                          .397
                                     1.74E+04
                                                                             .013
                                                                                         430.8
                                                                                                                1.74E+04
  .051
               446.5
                          .399
                                    2.17E+04
                                                                             .051
                                                                                         446.5
                                                                                                     .399
                                                                                                                2.17E+04
  .063
              430.4
                                     1.75E+04
                          .400
                                                                             .063
                                                                                         430.4
                                                                                                     .400
                                                                                                                1.75E+04
                          .401
  .089
              446.3
                                     1.91E+04
                                                                             .089
                                                                                         446.3
                                                                                                     .401
                                                                                                                1.91E+04
                                                                             . 114
  .114
                          .403
                                     1.84E+04
              436.4
                                                                                         436.4
                                                                                                     .403
                                                                                                                1.84E+04
  . 140
                                                                             . 140
              424.6
                          .404
                                     1.74E+04
                                                                                         424.6
                                                                                                     .404
                                                                                                                1.74E+04
  . 165
              430.6
                          .405
                                    1.82E+04
                                                                             .165
                                                                                         430.6
                                                                                                     .405
                                                                                                                1.82E+04
 .317
              466.6
                                    4.74E+04
                          .420
                                                                             .317
                                                                                         466.6
                                                                                                     .420
                                                                                                                4.74E+04
  . 394
              541.0
                          .438
                                    1.15E+05
                                                                             . 394
                                                                                         541.0
                                                                                                     .438
                                                                                                                1.15E+05
  .470
               756.6
                          .459
                                    7.87E+04
                                                                             .470
                                                                                         756.6
                                                                                                     .459
                                                                                                                7.87E+04
  .546
              816.9
                          .474
                                    5.14E+04
                                                                             .546
                                                                                         816.9
                                                                                                     .474
                                                                                                                5.14E+04
  .622
              823.9
                          .485
                                    4.86E+04
                                                                             .622
                                                                                         823.9
                                                                                                     .485
                                                                                                                4.861+04
  .698
              846.1
                          .495
                                    4.55E+04
                                                                             .698
                                                                                         846.1
                                                                                                     .495
                                                                                                                4.55 € +04
  .775
                                    4.45E+04
              853.4
                          .505
                                                                             .775
                                                                                         853.4
                                                                                                     . 505
                                                                                                                4.45E+04
  .851
              870.1
                          .515
                                    4.19E+04
                                                                             .851
                                                                                         870.1
                                                                                                     .515
                                                                                                                4.19E+04
  .927
              870.2
                          .524
                                    4.08E+04
                                                                             .927
                                                                                         870.2
                                                                                                     .524
                                                                                                                4.08E+04
 1.003
              839.7
                          .533
                                    3.70E+04
                                                                            1.003
                                                                                         839.7
                                                                                                     .533
                                                                                                                3.70E+04
 1.067
              780.4
                          .539
                                    2.68E+04
                                                                            1.067
                                                                                         780.4
                                                                                                     .539
                                                                                                               2.68E+04
 1.156
              816.3
                          .546
                                    3.02E+04
                                                                            1.156
                                                                                         816.3
                                                                                                     .546
                                                                                                                3.02E+04
 1.232
              733.2
                          .554
                                    4.59E+04
                                                                                         733.2
                                                                            1.232
                                                                                                     .554
                                                                                                               4.59E+04
 1.257
              689.7
                          .559
                                    7.38E+04
                                                                            1.257
                                                                                         689.7
                                                                                                     .559
                                                                                                                7.38E+04
 1.321
              774.5
                          .573
                                    8.36E+04
                                                                                                     .573
                                                                            1.321
                                                                                         774.5
                                                                                                                8.36E+04
 1.384
              834.9
                          .586
                                    5.04E+04
                                                                            1.384
                                                                                         834.9
                                                                                                     .586
                                                                                                                5.04E+04
 1.460
              859.1
                          .596
                                    4.52E+04
                                                                           1.460
                                                                                         859.1
                                                                                                     .596
                                                                                                               4.52E+04
 1.511
              861.6
                          .603
                                    4.26E+04
                                                                            1.511
                                                                                         861.6
                                                                                                     .603
                                                                                                               4.26E+04
              811.7
 1.562
                          .609
                                    4.37E+04
                                                                           1.562
                                                                                         811.7
                                                                                                     .609
                                                                                                               4.37E+04
                          .616
 1.613
              841.6
                                    4.42E+04
                                                                            1.613
                                                                                         841.6
                                                                                                     .616
                                                                                                               4.42E+04
 1.689
              879.6
                          .626
                                    4.31E+04
                                                                           1.689
                                                                                         879.6
                                                                                                     .626
                                                                                                               4.31E+04
 1.765
              891.7
                          .635
                                    4.09E+04
                                                                           1.765
                                                                                         891.7
                                                                                                     .635
                                                                                                               4.09E+04
 1.816
              880.2
                          .641
                                    3.82E+04
                                                                           1.816
                                                                                         880.2
                                                                                                     . 641
                                                                                                               3.82E+04
 1.867
              842.7
                          . 646
                                    3.84E+04
                                                                           1.867
                                                                                                     .646
                                                                                         842.7
                                                                                                               3.84E+04
```

1.918

1.994

2.070

830.1

851.5

824.5

.652

.660

.666

3.65E+04

3.20E+04

2.61E+04

POINT SERIAL NO. 3113.070 (TIME= 127.50 SEC) 15.21 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 591.8 K 1.446E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .37 MPA PRESSURE 413.96 K SAT TEMP 40.65 KG/SEC-M**2 MASS FLUX INLET QUALITY . 398 1.446E+06 J/KG INLET ENTHALPY QUENCH FRONT: . 474 M ELEVATION .0080 M/SEC VELOCITY . 445 QUALITY 0.0 W NET LIP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA TV DZQF ELEVATION (M) (K) (M)

642.5 .656 .537 1.841 1.368 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS XE HEAT FLUX TEMP ELEVATION W/M##2 W/M##2 (K) (M) 1.68E+04 428.1 .399 .013 1.97E+04 401 440.3 .051 1.66E+04 427.8 .402 .063 1.79E+04 . 403 .089 442.3 1.74E+04 .11 404 432.9 .406 1.62E+04 422.2 - 14/ 1.70E+04 427.4 .407 . 165 .416 2.43E+04 446.3 .317 7.38E+04 .427 . 394 . 4444 8.03E+04 .470 659.4 8.20E+04 .462 .546 768.1 796.2 .477 4.96E+04 .622 4.51E+04 821.6 .487 .698 .497 4.39E+04 829.9 .775 4.14E+04 .507 848.9 .851 .516 4.01E+04 849.8 .927 3.68E+04 821.9 .525 1.003 770.3 .531 2.73E+04 1.067 3.03E+04 803.6 .538 1.156 704.6 .547 4.83E+04 1.232 7.65E+04 635.6 .551 1.257 .568 1.07E+05 682.5 1.321 .590 1.28E+05 1.384 770.6 5.03E+04 .610 1.460 833.2 4.49E+04 .617 1.511 838.0 4.41E+04 .624 1,562 788.0 4.45E+04 .630 817.9 1.613 4.40E+04 .640 1.689 856.9 .650 4.23E+04 870.7 1.765 3.97E+04 1.816 860.4 . 656 3.89E+04 .662 823.6 1.867 3.74E+04 812.3 .668 1.918 3.34E+04 837.2 .675 1.994

.682

814.5

2.070

2.83E+04

INEL POST-CHE EXPERIMENT NO. 114

POINT SERIAL NO. 2114.020 (TIME= 259.50 SEC) LOOP PRESSURE(PE-3) 16.00 MPA 613.0 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.589E+06 J/KG TEST SECTION: .48 MPA PRESSURE 423.40 K SAT TEMP 16.86 KG/SEC-M**2 MASS FLUX INLET QUALITY . 452 1.589E+06 J/KG INLET ENTHALPY QUENCH FRONT: .311 M ELEVATION .0017 M/SEC VELOCITY QUALITY .568 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMEN: LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

797.3 .721 .524 1.537 1.226 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVALION TEMP XE W/M**2 W/MHH2 (M) (K) 425.8 . 454 1.95E+04 .013 431.2 .450 1.97E+04 .051 428.3 .46 i 1.97E+04 .063 .465 1.99E+04 .089 436.0 1.98E+04 429.6 .469 . 114 . 140 1.96E+04 .472 427.8 1.98E+04 .476 . 165 428.9 .317 4.29E+04 621.4 .510 .530 3.09E+04 830.0 . 394 2.84E+04 .470 875.5 .546 2.74E+04 .561 .546 907.6 2.66E+04 .622 925.9 .576 944.5 .591 2.61E+04 .698 .775 956.3 .605 2.56E+04 2.52E+04 .619 .851 966.6 2.43E+04 .632 .927 968.2 .645 2.27E+04 952.6 1.003 1.88E+04 1.80E+03 870.4 .654 1.067 .667 1.98E+04 5.20E+02 1.156 915.5 1.96E+04 1.232 880.6 .677 899.8 .681 2.08E+04 1.257 2.13E+04 1.321 913.1 .691 .700 973.9 2.22E+04 1.384 2.25E+04 1009.7 .713 1.460 .721 1012.5 2.13E+04 1.511 2.25E+04 990.9 .729 1.562 .737 1,613 1006.7 2.27E+04 .749 2.25E+04 1.689 1035.8 .761 2.16E+04 1.765 1052.0 .769 1.98E+04 1.816 1040.5 2.03E+04 1001.0 .776 1.867 . 783 1.99E+04 1.918 987.8 1.88E+04 985.9 . 794 1.994 .804 1.71E+04 983.8 2.070

INEL POST-CHE EXPERIMENT NO. 114

. 798

989.5

2.12E+04

INEL POST-CHE EXPERIMENT NO. 114 POINT SERIAL NO. 1114.050 (TIME= 423.50 SEC) POINT SERIAL NO. 2114.050 (TIME= 423.50 SEC) 16.08 MPA LOOP PRESSURE(PE-3) 16.08 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 612.5 K FCV TEMPERATURE (TE-FCV-11) 612.5 K LHP INLET ENTHALPY 1.585E+06 J/KG LHP INLET ENTHALPY 1.585E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE . 48 MPA PRESSURE .48 MPA SAT TEMP 423.17 K SAT TEMP 423.17 K 16.43 KG/SEC-M**2 MASS FLUX 16.43 KG/SEC-M**2 MASS FLUX INLET QUALITY .451 INLET QUALITY .451 INLET ENTHALPY INLET ENTHALPY 1.585E+06 J/KG 1.585E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .546 M ELEVATION .546 M .0014 M/SEC VELOCITY .0014 M/SEC VELOCITY .536 QUAL: TY .536 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZCF TV XE XA XA ELEVATION DZQF TV XE (M) (M) (K) (M) (K) (M) . 685 1,537 .990 720.0 .711 .548 1.232 598.4 .657 .559 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M*#2 W/M##2 W/M**2 (K) (K) W/M##2 (M) (M) 1.90E+04 .013 421.6 .452 .013 421.6 .452 1.90E+04 .051 427.0 .458 1.93E+04 .051 427.0 . 458 1.93E+04 424.9 .460 1.93E+04 424.9 .460 1.93E+04 .063 .063 .463 1.93E+04 1.93E+04 .089 430.2 .089 430.2 .463 . 114 424.6 .467 1.93E+04 .467 1.93E+04 . 114 424.6 424.8 424.8 .470 1.93E+04 1.93E+04 . 140 . 140 .470 425.6 . 165 425.6 . 474 1.93E+04 . 165 .474 1.93E+04 .317 427.5 .496 1.95E+04 .317 427.5 .496 1.95E+04 2.03E+04 . 394 437.2 .507 2.03E+04 .507 . 394 437.2 .519 2.21E+04 .470 451.1 .519 2.21E+04 .470 451.1 3.84E+04 .546 599.9 .536 3.64E+04 .546 599.9 .536 .622 803.4 .554 2.87E+04 .622 803.4 .554 2.87E+04 .570 2.61E+04 .698 843.6 .570 2.61E+04 .698 843.6 .775 .775 .584 2.50E+04 866.5 .584 2.50E+04 866.5 .851 885.7 .598 2.42E+04 .851 885.7 .598 2.42E+04 .927 896.6 .611 2.36E+04 .927 896.6 .611 2.38E+04 2.33E+04 .624 2.33E+04 1.003 895.0 .624 1.003 895.0 834.5 .634 2.01E+04 1.88E+03 1.067 834.5 .634 2.01E+04 1.88E+03 1.067 1, 156 878.7 .648 2.14E+04 8.77E+02 1.156 878.7 .648 2.14E+04 8.77E+02 .660 2.13E+04 1,232 843.9 .660 2.13E+04 1.232 843.9 1.257 858.4 2.30E+04 1.257 858.4 .664 2.30E+04 .664 873.7 .675 2.27E+04 1.321 873 7 .675 2.27E+04 1.321 925.7 2.29E+04 1.384 925.7 .685 2.29E+04 1.384 .685 2.31E+04 959.0 .698 1.460 959.0 .698 2.31E+04 1.460 .707 .707 961.5 2.18E+04 1.511 961.5 2.18E+04 1.511 .715 .715 2.32E+04 940.9 2.32E+04 1,562 940.9 1.562 .724 1.613 956.5 .724 2.30E+04 1.613 956.5 2.30E+04 989.1 .736 2.28E+04 1.689 989.1 .736 2.28E+04 1.689 .749 2.26E+04 2.26E+04 1.765 1012.4 1.765 1012.4 .749 1006.3 .757 .757 2.13E+04 2.13E+04 1.816 1006.3 1.816 .765 974.0 1.867 974.0 .765 2.22E+04 1.867 2.22E+04 .774 1.918 967.1 2.21E+04 1.918 967.1 .774 2.21E+04 2.15E+04 977.2 .786 2.15E+04 1.994 977.2 .786 1.994

2.070

989.5

.798

2.12E+ 4

POINT SERIAL NO. 3114.050 (TIME= 523.50 SEC)

POINT SERIAL NO. 1114.060 (TIME= 476.50 SEC)

1.994

2.070

968.5

982.4

2.070

989.5

.798

2.12E+04

POINT SERIAL NO. 2114.060 (TIME= 476.50 SEC) POINT SERIAL NO. 3114.060 (TIME= 476.50 SEC) LOOP PRESSURE(PE-3) 16.13 MPA LOOP PRESSURE(PE-3) 16.13 MPA FCV TEMPERATURE (TE-FCV-11) 613 0 K FCV TEMPERATURE (TE-FCV-11) 613.0 K LHP INLET ENTHALPY 1.589E+06 J/KG 1.589E+06 J/KG LHP INLET ENTHAL?Y TEST SECTION: TEST SECTION: PRESSURE .48 MPA PRESSURE LIP MPA 423.12 K SAT TEME SAT TEMP 423.12 K 16.29 KG/SEC-H**2 MASS FLUX 16.29 KG/SEC-M**2 MASS FLUX INLET QUALTTY INLET QUALITY 453 453 1.589E+06 J/KG 1.589E+06 J/KG INLET INTHATPY INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION 621 M ELEVATION .621 M VELOCITY .0014 M/SEC VELOCITY .0014 M/SEC .553 .553 QUALITY QUALITY NET LHP POWER TO FLUID NET LIIP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF IV XE XA (M) (M) (K) (M) (M) (K) 1.537 .915 697.3 .717 .563 1.841 1,220 817.1 .766 .549 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M**2 (K) W/M##2 W/M##2 W/M##2 (M) (K) .013 420.0 1.86£+0h .013 420.0 . 454 1.86E+04 .051 426.5 .460 1.93E+04 .051 426.5 .460 1.93E+04 .063 424.6 .462 1 90F+04 .063 424.6 462 1.94E+04 .089 429.5 .465 1.932+04 .089 429.5 . 465 . 114 1.94Es 34 424.2 .469 1.948+04 424.2 .459 114 .140 1.93E+04 . 140 424.5 .473 1.93E+04 424.5 .473 425.2 425.2 . 165 .476 1.94E+04 . 165 .476 498 1 94E+04 .317 .317 426.4 .498 1.94E+04 426.4 . 394 432.6 98E+04 . 394 432.6 .509 1.98E+04 470 439.9 520 2.42E+04 .470 439.9 520 2.23E+04 452.3 2.23E+04 546 452.3 . 532 . 546 532 622 661.1 .554 5.30E+04 .622 661.1 .554 5.30E+04 .576 .576 .698 804.0 2.72E+0h .698 804.0 .775 775 .591 2.50E+04 836.2 .591 2.50E+04 836.2 .851 860.6 .605 2.41E+64 .851 860.6 .605 2.41E+0b 874.5 .618 2.35E+04 .927 874.5 .618 2.35E+04 2.31E+04 2.31E+04 1.103 875.7 .051 1.003 375.7 .631 820.0 820.0 1.991+04 1.95E+03 1.067 .642 1.99E+04 1.95E+03 . 642 2. udc +04 1.156 863.2 1.27E+03 863.2 .655 2.08E+04 1.27E+03 1.156 .655 2.101+04 232 828.3 2.10E+04 1.232 828.3 .667 .667 1.257 .671 2.23E+04 1.257 842.0 .671 2.23E+04 858.6 2.24E+04 858.6 2.24E+04 1.321 687 1.321 .681 1.384 5.9.0 2.25E+04 1.394 909.0 .692 2.25E+04 2.27E+04 .705 1.460 942.2 1.460 7.14E+04 .713 .713 2.14E+04 944.4 1.511 944.4 1.511 924.8 .721 2.21E+04 1.562 924.8 .721 2.21E+04 1.562 .729 1.613 2.22E+04 1.613 940.5 .729 2.22E+04 £.0.5 742 .742 2.22E+04 973.6 2.22E+04 1.689 913.6 1.689 1.765 998.2 .754 2.20E+04 1.765 998.2 . 754 2.20E+04 .762 .762 992.9 2.07E+04 1.816 992.9 2.07E+04 1.816 2.15E+04 .770 1.863 962.5 .770 1.867 962.5 2.15E+04 .739 310 2.13E+04 1.918 956.9 2.13E+04 956.9 .778 7.994 . 790 2. 1. E+64 1.994 .790 2.13E+04 968.5 968.5 2.070 982.4 .602 2. GE+04 2.070 982.4 .802 2.10E+04

INEL POST-CHE EXPERIMENT NO. 114

```
PO:NT SERIAL NO. 2114.070 (TIME= 518.50 SEC)
FCV TOMPERATURE (TE-FCV-11)
                                16.17 MPA
                                613.1 K
                            1.589E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                  .48 MPA
    PRESSURE
                               423.22 KG/SEC-M**2
    SAT TEMP
    MASS FLUX
                                 .452
    INLET QUALITY
                            1.589E+06 J/KG
    INLET ENTHALPY
QUENCH FRONT:
                                 .680 M
    ELEVATION
                                .0014 M/SEC
    VELOCITY
                                 .559
    QUALITY
                                  0.0 W
NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                           XE XA
                    TV
            DZQF
ELEVATION
 (M)
            (M)
                   675.9 .713 .569
            .856
 1.537
```

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE.	HEAT FLUX	HEAT LUSS
(M)	(K)		N/W**5	M/W##5
.013	420.6	. 454	2.00E+04	
.051	426.4	.460	1.94E+04	
.063	424.5	.462	1.93E+04	
.089	429.2	. 466	1.94E+04	
.114	424.1	.469	1.94E+04	
. 140	424.6	. 473	1.93E+04	
. 165	425.2	.477	1.94E+04	
.317	425.9	.499	1.94E+04	
394	430.4	.510	1.97E+04	
.470	436.1	.521	1.99E+04	
.546	441.6	.533	2.05E+04	
.622	439.1	.545	2.20E+04	
.698	741.9	.563	4.14E+04	
.775	806.3	.582	2.71E+04	
.851	838.1	.597	2.50E+04	
.927	855.7	.611	2,42E+04	
1.003	859.6	.625	2.35E+04	
1.067	808.0	635	2.05E+04	1.72E+03
1.156	850.5	.649	2.14E+04	8.86E+02
1.232	816.3	. 561	2.15E+04	
1.257	828.6	.665	2.27E+04	
1.321	846.1	.676	2.26E+04	
1.384	895.5	.687	2.30E+04	
1.460	928.3	.700	2.30E+04	
1.511	930.5	.709	2.18E+04	
1.562	911.8	.717	2.27E+04	
1.613	927.4	.726	2.28E+04	
1.689	961.4	.739	2.27E+04	
1.765	586.3	. 752	2.27E+04	
1.816	981.7	.760	2.12E+04	
1.867	952.9	.768	2.23E+04	
1.918	948.0	.777	2.20E+04	
1.994	960.8	.789	2.19E+04	
2.070	975.5	.801	2.17E+04	

POINT SERIA	L NO. 31	14.070 (T	IME= 518	.50 SEC)	
LOOP PRESSU	RECPE-31		16.16	MPA	
FGV TEMPERA	TURE! IE-F	CV-111	613.1		
LHP INLET I	NTHALPY	1	.589E+06	J/KG	
TEST SECTIO					
PRESSU			,48	MPA	
SAT TE			423.22		
MASS I			16.15	KG/SEC-	-M**2
	QUALITY		.452		
	ENTHALPY	1	.589E+06	J/KG	
QUENCH FROM					
ELEVA	ION		.680		
VELOC	TY			M/SEC	
QUALIT			.559		
NET LHP POL	ER TO FLU	10	0.0	W	
VAPOR TEMPI	RATURE ME	ASUREMENT L	OCATION	INFORMA	TION
ELEVATION		TV X	E XA		
(M)	(M)	(K)			
1.841	1.161	799.5 .7	64 .555		
WALL TEMPER		SUREMENT LO	CATION I	NEORMATI	ION
ELEVATION		X.		FLUX	HEAT LOS
(M)	(K)		W/M	**2	W/M**2
.013	420.6	.454	2.00		
.051	426.4	. 460	1.94		
.063	424.5		1.93		
.089	429.2	.466	1.94		
. 114	424.1	. 469		E+04	
. 140	424.6			E+04	
. 165	425.2	. 477	1.94		
.317	425.9		1.94		
. 394	430.4	.510	1.99		
.470	436.1	.521	2.05		
. 546	441.6	.533	2.20		
.622	439.1	.563	4.14		
.698	741.9	.582	2.71		
.775	806.3	.597	2.50		
.851	838.1 855.7	.611	2.42		
.927					
4 000	OF C			F + 1321	
1.003	859.6 808.0	.625	2.35	E+04	1.72E+03

.649

.661

.665

.687

.700

.709

.717

.726

.739

.752

.760

.768

.777

. 789

.801

850.5

816.3

828.6

846.1

895.5

928.3

930.8

911.8

927.4

961.4

986.3

981.7

952.9

948.0

960.8

975.5

1.156

1.232

1.257

1.321

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

2.14E+04

2.15E+04

2.27E+04

2.26E+04

2.30E+04

2.30E+04

2.18E+04

2.27E+04

2.28E+04

2.27E+04

2.27E+04

2.12E+04

2.23E+04

2.20E+04

2.19E+04

2.17E+04

8.86E+02

1.765

1.816

1.918

1.994

2.070

961.1

952.7

947.8

960.6

975.3

986.0 981.5 .739

.751

.760

.768

.776

.789

.801

2.28E+04

2.26E+04

2.13E+04

2.22E+04

2.20E+04

2.18E+04

2.17E+04

INEL POST-CHE EXPERIMENT NO. 114 INEL POST-CHE EXPERIMENT NO. 114 POINT SERIAL NO. 1114.070 (TIME= 519.50 SEC) POINT SERIAL NO. 2114.080 (TIME= 539.50 SEC) LOOP PRESSURE(PE-3) 16.16 MPA LOOP PRESSURE(PE-3) 15.98 MPA FCV TEMPERATURE (TE-FCV-1T) 613.1 K FCV TEMPERATURE (TE-FCV-1T) 612.9 K LHP INLET ENTHALPY 1.589E+06 J/KG LHP INLET ENTHALPY 1.588E+06 J/KG TEST SECTION: TEST SECTION: .48 MPA .48 MPA PRESSURE PRESSURE 423.23 K 423.14 K SAT TEMP SAT TEMP MASS FLUX 16.15 KG/SEC-M**2 MASS FLUX 16.01 KG/SEC-M##2 INLET QUALITY INLET QUALITY .453 .452 INLET ENTHALPY 1.589E+06 J/KG INLET ENTHALPY 1.538E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION .682 M .710 M .0014 M/SEC .0014 M/SEC VELOCITY VELOCITY .559 .564 QUALITY QUALITY NET LIIP POWER TO FLUID 0.0 W NET LIIP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV ELEVATION DZQF TV XE XA XE XA (M) (M) (M) (K) (M) (K) 1.232 1.537 .827 669.5 .710 .570 .550 553.8 .658 .581 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION HEAT LOSS ELEVATION TEMP XE TEMP HEAT FLUX XE W/M##2 W/M##2 W/M**2 W/M##2 (M) (K) (M) (K) 419.5 .013 420.5 .455 1.99E+04 .013 .454 1.86E+04 .051 1.94E+04 426.2 1.95E+04 426.4 .460 .051 .459 .063 424.5 .462 1.94E+04 .063 424.4 .461 1.95E+04 .089 429.2 .466 1.95E+04 .089 428.9 .465 1.94E+04 1.94E+04 . 114 424.0 .469 1.94E+04 . 114 424.1 .469 . 140 424.6 .473 1.94E+04 . 140 424.6 .472 1.95E+04 425.1 1.94E+04 . 165 .476 1.94E+04 . 165 425.2 .477 .317 425.9 .499 1.948+04 .317 425.6 .499 1.96E+04 1.97E+04 1.96E+04 . 394 429.7 .510 . 394 430.4 .510 .470 436.1 .521 1.99E+04 .470 435.1 .521 1.97E+04 .533 .546 441.5 .533 2.04E+04 .546 438.7 2.04E+04 .622 438.8 .545 2.17E+04 .622 433.6 .544 2.01E+04 543.0 3.90E+04 .698 737.0 .563 4.13E+04 .698 .561 .775 805.5 .582 2.72E+04 .775 788.6 .580 2.74E+04 .597 .851 837.6 2.50E+04 826.4 .595 2.49E+04 .851 .927 855.3 .611 2.43E+04 .927 846.4 .609 2.37E+04 1.003 859.2 .625 2.35E+04 1.003 851.9 .623 2.31F+04 1.067 807.7 .635 2.05E+04 1.75E+03 1.067 802.1 .633 2. u3E+04 1.69E+03 850.2 .649 844.5 1.12E+03 1.156 2.14E+04 8.91E+02 1.156 .647 2.09E+04 1.232 1,232 816.0 .661 2.15E+C4 810.0 .659 2.14E+04 1.257 828.3 2.27E+04 1.257 822.5 .663 2.25E+04 .665 1.321 845.9 .676 2.26E+04 1.321 840.1 .674 2.25E+04 895.2 .687 2.30E+04 1.384 888.9 .685 2.26E+04 1.384 2.30E+04 1.460 921.9 2.25E+04 1.460 928.0 .700 .698 .709 2.18E+04 1.511 924.5 .706 2.12E+04 1.511 930.5 .714 2.25E+04 2.29E+04 .717 1.562 906.0 1.562 911.5 927.1 .726 2.27E+04 1.613 921.6 .723 2.22E+04 1.613

955.5

980.8

276.6

948.2

944.0

956.9

972.1

1.689

1.765

1.816

1.867

1.918

1.994

2.070

.736

.748

.757

.765

.773

.785

.797

2.23E+04

2.20E+04

2.07E+04

2.17E+04

2.14E+04 2.15E+04

2.11E+04

	THE TWO	, com Lon				THE P. LAN	or ann and	LITTLE III		
POINT SERI	AL NO. 31	14.080	(TIME= 539.50	SEC)	POINT SERIA	L NO. 2	114,090	(TIME= 583	.50 SEC)
LOOP PRESS	SURE(PE-3)		15.98 MPA	GSEC-M**2	LOOP PRESSU	RE(PE-3)		16.03	MPA	
FCV TEMPER	RATURE (TE-F	CV-1T)	612.9 K		FCV TEMPERA	TURE (TE-	FCV-1T)	613.2	K	
LHP INLET	ENTHALPY		1.588E+06 J/F	(G	LHP INLET E	NIHALPY		1.590E+06	J/KG	
TEST SECTI	ON:				TEST SECTIO	N:				
PRESS	SURE		. 48 MPA		PRESSU	IRE		. 48	MPA	
SAT I	EMP		423.14 K		SAT TE	MP		423.20	K	
MASS	FLUX		16.01 KG/	SEC-M**2	MASS F	LUX		15.80	KG/SEC	-M##5
INLET	QUALITY		.452		INLET	QUALITY		.453		
INLE	ENTHALPY		1.588E+06 J/K	(G	INLET	ENTHALPY		1.590E+06	J/KG	
QUENCH FRO	ITAC				QUENCH FROM	11:				
ELEVA	ATION		.710 M		FLEVAT	ION		. 112	M	
AFFOC	TIY		.0014 M/S	EC	AFFOCI	TY		.0015	M/SEC	
HET THE DO	WED TO CLU	1.00	. 564		QUALIT	Υ		.5/8		
MET LIP PO	WER TO ILU	10	0.0 W		NET LHP POW	ER TO FL	010	0.0	M	
VAPOR TEMP	PERATURE ME	ASUREMENT	LOCATION INFO	RMATION	VAPOR TEMPE	RATURE M	EASUREMENT	LOCATION	INFORMA	TION
(M)	(M)	(K)	AL AA	RMATION	(M)	(M)	(K)	AL AA		
1.841	1,132	797.7	.761 .553		1.537	. 764	646.8	.721 .589		
WALL TEMPE	RATURE MEA	SUREMENT	LOCATION INFOR	MATION IX HEAT LOSS W/M**2	WALL TEMPER	ATURE ME	ASUREMENT	LOCATION I	NFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLU	X HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)		W/M	**2	W/M**2
.013	419.5	.454	1.86E+04	1.69E+03 1.12E+03	.013	418.6	. 455	1.91	E+04	
.051	426.2	.459	1.95£+04		.051	425.9	. 461	1.94	E+04	
.063	424.4	.461	1.95E+04		.063	424.2	. 463	1.94	E+()4	
.089	428.9	.465	1.94E+04		.089	428.4	. 466	1.95	E+04	
.114	424.0	. 469	1.94E+04		. 114	423.8	.470	1.95	E+04	
. 140	424.6	.472	1.95E+04		. 140	424.3	. 474	1.94	E+04	
. 165	425.1	.8176	1.94E+04		.165	424.9	.478	1.94	E+04	
.317	425.6	.499	1.96E+04		.317	h25.2	.500	1.95	E+04	
. 394	429.7	.510	1.97E+04		. 394	428.3	.512	1.96	E+()4	
546	435.1	.521	1.9/E+04		.470	433.8	.523	198	E+04	
622	430.1	500	2.046+04		.546	434.5	- 535	2.01	E+04	
600	643.0	561	2 005404		.022	428.8	.546	2.00	E+04	
776	799 6	580	2 755405		, 698	453.0	. 229	2.21	E+04	
851	826 1	505	2 195+01		951	705.0	. 2:0	4.51	E +04	
927	846 4	609	2 37F+04		927	823 7	615	2 62	E+04	
1.003	851.9	623	2 31F+04		1 003	833 0	620	2 11	E+0h	
1.067	802.1	.633	2.03E+04	1.69F+03	1.067	788 7	640	2 13	E+Dh	1.31E+03
1.156	844.5	.647	2.09E+04	1.12F+03	1.156	830 6	656	2 20	E+Ols	6.31E+02
1.232	810.0	.659	2.14E+04		1.232	794.5	668	2 19	F+04	0.312.02
1.257	822.5	.663	2.25E+04		1.257	806.5	672	2.32	E+04	
1.321	840.1	.674	2.25E+04		1.321	826.5	. 683	2.28	E+04	
1.384	888.9	.685	2.26E+04		1.384	874.5	.694	2.32	E+04	
1.460	921.9	.698	2.25E+04		1.460	907.9	.708	2.30	E+04	
1.511	924.5	.706	2.12E+04		1.511	910.6	.716	2.17	E+04	
1.562	906.0	.714	2.25E+04		1.562	892.5	. 725	2,28	E+04	
1.613	921.6	.723	2.22E+04		1.613	908.0	. 734	1.28	E+04	
1.689	955.5	. 736	2.23E+04		1.689	942.5	.747	2.27	E+04	
1.765	980.8	. 748	2.20E+04		1.765	968.6	.760	2.27	E+04	
1.816	976.6	. 757	2.07E+04		1.816	965.1	. 769	2.13	E+04	
1.867	948.2	. 765	2.17E+04		1.867	938.1	.777	2.23	E+04	
	944.0	. 113	2.14E+04		1.918	934.4	. 786	2,21	E+04	
1.910										
1.994	956.9	. 785	2.15E+04		1.994	948.2	. 799	2.21	E+04	

INEL POST-CHE EXPERIMENT NO. 114

POINT	SERIAL NO. 31	14.090 (TI	ME= 583.50 SE	C)	POINT SERI	AL NO. 21	14.100	(TIME= 636.50 SEC	2)
LOOP PFCV TE LHP IN TEST S P P P P P P P P P P P P P P P P P P	RESSURE(PE-3) MPERATURE(TE-FC LET ENTHALPY ECTION: RESSURE AT TEMP ASS FLUX NIET QUALITY NLET ENTHALPY FRONT: LEVATION ELOCITY UALITY P POWER TO FLUI	1. (D	16.03 MPA 613.2 K 590E+06 J/KG .48 MPA 423.20 K 15.80 KG/SE .453 590E+06 J/KG .772 M .0015 M/SEC .578 0.0 W	C-M**2	LOOP PRESSIFICATION OF THE PROPERTY OF THE PRESSIFICATION OF THE PROPERTY OF T	URE(PE-3) ATURE(TE-F ENTHALPY ON: URE EMP FLUX QUALITY ENTHALPY NT: FION ITY WER TO FLU	CV-11)	16.10 MPA 612.4 K 1.584E+06 J/KG .47 MPA 422.89 K 15.75 KG/SEC .451 1.584E+06 J/KG .847 M .0014 M/SEC .586 0.0 W	:-M**2
VAPOR ELEVAT (M)	TEMPERATURE MEA ION DZQF (M)	TV XE	CATION INFORM	1.31E+03 6.31E+02	VAPOR TEMPI ELEVATION (M)	DZQF	ASUREMENT TV (K)	LOCATION INFORMA	TION
1.841	1.069	781.2 .77	3 .569		1.537	.690	623.3	.717 .598	
WALL T	EMPERATURE MEAS	SUREMENT LOC	ATION INFORMA	TION	WALL TEMPER	RATURE MEA	SUREMENT	LOCATION INFORMAT	ION
ELEVAT	ION TEMP	XE	W/M**2	HEAT LOSS W/M**2	ELEVATION (M)	TEMP (K)	XE	HEAT FLUX	W/M**2
.013	418.6	.455	1.91E+04		.013	418.3	.453	1.95E+04	
.051	425.9	.461	1.948+04		.051	425.6	.458	1.95E+04	
.063	424.2	.463	1.94E+04		.063	423.9	.460	1.95E+04	
.089	428.4	.466	1.95E+04		.089	428.0	. 464	1.96E+04	
.114	423.8	,470	1.951+04		. 114	423.4	.468	1.94E+04	
. 140	424.3	.4/4	1.941.404		. 140	424.0	.471	1.95E+04	
. 100	424.9	.478	1.946+04		. 165	424.7	.475	1.95E+04	
300	423.2	513	1.956+04		.317	424.0	. 498	1.941+04	
1,70	420.3	523	1.961+04		. 394	421.1	.509	1.961+04	
546	133.0	535	2 015+04		.470	431.5	. 521	1.971.404	
622	1128 8	546	2 005+04		. 240	431.0	. 532	1.981+04	
608	153.0	550	2 27F+04		608	10.00 B	. 244	2 025404	
775	656.0	578	4 51E+04		775	hh3 6	568	2 155 +04	
851	795.0	599	2 775+04		851	686 0	587	h 66E+0h	
.927	823.7	.615	2.52F+04		927	787 3	600	2 715+04	
1.003	833.0	.629	2.41E+04		1.003	806.2	624	2 495+04	
1.067	788.7	.640	2.13E+04	1.31E+03	1.067	770.4	636	2 315+04	
1.156	830.6	.655	2.20E+04	6.31E+02	1.156	812.6	.651	2.305+04	
1.232	794.5	.668	2.19E+04		1.232	776.1	.664	2.14F+04	
1.257	806.5	.672	2.32E+04		1.257	787.5	.669	2.32F+04	
1.321	826.5	.683	2.28E+04		1.321	810.1	.680	2.28E+04	
1.384	874.5	. 694	2.32E+04		1.384	856.6	.691	2.30E+04	
1.460	907.9	.708	2.30E+04		1.460	890.2	.704	2.30E+04	
1.511	910.6	.716	2.17E+04		1.511	893.1	.713	2.19E+04	
1.562	892.5	.725	2.28E+04		1,562	875.3	.722	2.33E+04	
1.613	908.0	. 734	2.28E+04		1.613	891.0	.731	2.31E+04	
1.689	942.5	.747	2.27E+04		1.689	926.2	. 744	2.30E+04	
1.765	968.6	.760	2.27E+04		1.765	952.9	.758	2.28E+04	
1.816	965.1	.769	2.13E+04		1.816	950.1	.766	2.15E+04	
1.867	938.1	.777	2.23E+04		1.867	924.3	.775	2.27E+04	
1.918	934.4	. 786	2.21E+04		1.918	921.5	.784	2.26E+04	
1 004	948.2	.799	2.21E+04		1 994	936 3	797	2 225404	
1.774									

	INEL POS	II-CHE EX	LENIMEN	i no.		
POINT SERI	AL NO. 31	14.100	{TIME=	636.	50 SEC)	
LOOP PRESS FCV TEMPER LHP INLET	ATURE (TE-F	CV-1T)	1 6 1.584	12.4	K	
TEST SECTION PRESS	ON: URE EMP		42	2.89	MPA K KG/SEC-I	u**>
MASS INLET INLET QUENCH FRO	QUALITY ENTHALPY			.451		
VELOC	TION IIY IY			.847 0014 .586 0.0	M/SEC	
NET LHP PO						
VAPOR TEMP ELEVATION (M)	DZQF	TV	I LOCAT	XA XA	INFORMAT	ION
1.841	.994	763.7	.770	.575		
WALL TEMPE ELEVATION (M)	TEMP	ASUREMENT XE		HEAL	FLUX	ON HEAT LOSS W/M**2
.013 .051 .063	418.3 425.6 423.9	.46	0	1.956	C 17 12 17 1	

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LUSS
(M)	(K)		M/W**5	W/M**2

.013	418.3	.453	1.95E+04	
.051	425.6	.458	1.95E+04	
.063	423.9	.460	1.95E+04	
.089	428.0	.464	1.96E+04	
.114	423.4	.468	1.94E+04	
. 140	424.0	.471	1.95E+04	
. 165	424.7	.475	1.95E+04	
. 317	424.6	. 498	1.94E+04	
. 394	427.1	. 509	1.96E+04	
. 470	431.5	.521	1.97E+04	
. 546	431.6	.532	1.98E+04	
.622	426.0	.544	1.97E+04	
.698	440.9	.555	2.02E+04	
.775	443.6	.568	2.15£+04	
.851	686.0	.587	4.66E+04	
.927	787.3	.6.3.	2.71E+04	
1,003	806.2	. 624	2.49E+04	
1.067	770.4	.636	2.31E+04	
1,150	812.6	.651	2.30E+04	
1,232	776.1	.664	2.14E+04	
1.257	787.5	.669	2.32E+04	
1.321	810.1	.680	2.28E+04	
1.384	856.6	.691	2.30E+04	
1,460	890.2	. 704	2.30E+04	
1.511	893.1	.713	2.19E+04	
1.562	875.3	.722	2.33E+04	
1.613	891.0	.731	2.31E+04	
1,689	926.2	. 744	2.30E+04	
1.765	952.9	.758	2.28E+04	
1.816	950.1	.766	2.15E+04	
1.867	924.3	.775	2.27E+04	
1.918	921.5	.784	2.26E+04	
1.994	936.3	.797	2.22E+04	
2.070	952.9	.810	2.21E+04	

INEL POST-CHE EXPERIMENT NO. 114

	INEL PO	ST-CHF EX	PERIME	MI NO	. 114	
POINT SERIA	AL NO. 2	114.110	(TIME	= 687	.50 SEC)
LOOP PRESSU	IRE(PE-3)			16.12	MPA	
FCV TEMPERA	TURELTE-	FCV-11)		612.3	K	
LHP INLET E			1.58	2E+06	J/KG	
TEST SECTIO				6.7	MOA	
PRESSU			In the	22.98	MPA	
SAT TE					KG/SEC	-M##2
	QUALITY			.450	11112 0000	
	ENTHALPY		1.58	2E+06	J/KG	
QUENCH FROM						
ELEVAT				.916		
VELOCI					M/SEC	
QUALII		or n		0.0		
NET LHP POW	IER TO TE	uio		0.0	"	
VAPOR TEMPE				TION	INFORMA	TION
ELEVATION	DZQF	TV	XE	XA		
(M)	(M)	(K)				
1.537	.621	598.8	.710	.604		
	ATURE ME	A CUD CHENT	LOCAT	100 1	NEODMAT	LON
WALL TEMPER	TEMP	ASUKEMENT		HEAT	FLUX	HEAT LOS
(M)	(K)	A.E			**2.	M/M##2
(11)	101					
.013	417.9			1.96		
.051	425.4			1.95		
.063	423.8			1.95		
.089	427.6	. 46		1.96		
.114	423.2			1.96		
2.000						
. 140	423.9		62	1.96	E+04	
. 165	424.4	.47		1.96		
.165	424.4	.47	7	1.96 1.96 1.96	E+04	
. 165 . 317 . 394	424.4 424.2 426.4	.47	17	1.96 1.96 1.97	E+04 E+04	
.165	424.4	. 47 . 49 . 50 . 52	97 19 20 12	1.96 1.96 1.97	E+04 E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622	424.4 424.2 426.4 430.0 429.6 424.2	.47 .49 .50 .52	17 19 10 12	1.96 1.96 1.97 1.97	E+04 E+04 E+04 E+04 E+04	
.165 .317 .394 .470 .546 .622 .698	424.4 424.2 426.4 430.0 429.6 424.2 435.5	.47 .49 .50 .52 .53	17 19 20 12 13	1.96 1.96 1.97 1.97 1.94 1.97	E+04 E+04 E+04 E+04 E+04	
.165 .317 .394 .470 .546 .622 .698 .775	424,4 424,2 426,4 430.0 429.6 424.2 435.5 434.3	. 47 . 49 . 50 . 52 . 53 . 54	17 19 20 12 13 14 16	1.96 1.96 1.97 1.97 1.94 1.97 2.01	E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851	424, 4 424, 2 426, 4 430, 0 429, 6 424, 2 435, 3 445, 1	. 47 . 49 . 50 . 52 . 53 . 54 . 55	7 99 20 12 13 14 16 18	1.96 1.96 1.97 1.97 1.94 1.97 2.01 2.29	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851	424,4 424,2 426,4 430,0 429,6 424,2 435,5 434,3 445,1	. 47 . 49 . 50 . 52 . 53 . 54 . 55 . 56	17 19 19 10 12 13 14 16 16 17	1.96 1.97 1.97 1.97 1.94 1.97 2.01 2.29 4.06	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927	424,4 424,2 426,4 430,0 429,6 424,2 435,5 434,3 445,1 704,5 775,1	. 47 . 49 . 50 . 52 . 53 . 54 . 55 . 56 . 57 . 61	7 9 10 12 13 14 16 18 17	1.96 1.97 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.65	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003	424.4 424.2 426.4 430.0 429.6 424.2 435.3 445.1 704.5 775.1	. 47 . 49 . 50 . 52 . 54 . 55 . 56 . 57 . 59	7 19 10 12 13 14 16 18 17 16 18	1.96 1.96 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.65 2.35	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156	424,4 426,4 430.0 429.6 424.2 435.5 434.3 445.1 704.5 775.1 751.3	.47 .49 .50 .52 .53 .54 .55 .56 .57 .59	7 9 9 10 12 13 14 16 16 16 17 16 18 14	1.96 1.96 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.65 2.35 2.31	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1. 003 1. 067 1. 156	424.4 424.2 426.0 429.6 424.2 435.5 434.3 445.1 704.5 775.3 794.8	.47 .49 .50 .52 .53 .54 .55 .56 .57 .61	7 9 9 12 13 14 16 16 16 18 17 16 18 19 19 19 19 19 19 19 19 19 19 19 19 19	1.96 1.97 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.65 2.35 2.31 2.14	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232	424.4 426.4 430.0 429.6 424.2 435.5 434.3 445.1 704.5 775.1 751.3 794.8 759.0	.47 .49 .50 .52 .53 .54 .55 .56 .51 .61 .62	77 99 10 12 13 14 16 16 18 17 16 17	1.96 1.96 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.65 2.35 2.31	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156	424.4 424.2 426.0 429.6 424.2 435.5 434.3 445.1 704.5 775.3 794.8	.47 .49 .50 .52 .53 .54 .55 .56 .57 .61 .62	77 99 12 13 14 16 16 17 16 18 18 14 17 17 17 17 17 17 17 17 17 17 17 17 17	1.96 1.97 1.97 1.97 1.97 2.01 2.29 4.06 2.65 2.35 2.31 2.34	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321	424,4 426,4 430,0 429,6 424,2 435,3 445,1 704,5 775,1 775,1 775,1 769,2 769,2	.47 .49 .50 .52 .53 .54 .55 .61 .62 .61 .68	7 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	1.96 1.97 1.97 1.97 2.01 2.29 4.06 2.65 2.35 2.31 2.14 2.32 2.29 2.33	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460	424.4 426.4 430.0 429.6 424.2 435.3 445.1 704.5 775.3 794.8 759.0 769.2 789.2 873.1 876.1	.47 .49 .50 .52 .53 .54 .55 .56 .64 .65 .66 .67	77 99 10 10 10 10 10 10 10 10 10 10 10 10 10	1.96 1.96 1.97 1.97 1.97 2.01 2.29 4.06 2.65 2.35 2.31 2.14 2.32 2.32 2.32 2.32	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562	424, 4 424, 2 426, 4 430, 0 429, 6 424, 2 435, 3 445, 1 704, 5 775, 1 751, 3 794, 8 759, 0 769, 2 794, 1 839, 2 873, 1 876, 1 876, 1	.47 .49 .50 .52 .53 .54 .55 .56 .61 .62 .64 .65	77 99 100 102 103 104 105 105 105 105 105 105 105 105 105 105	1.96 1.96 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.35 2.31 2.14 2.32 2.29 2.32 2.33 2.20 2.32	E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1. 003 1. 067 1. 156 1. 232 1. 257 1. 321 1. 460 1. 511 1. 562 1. 613	424.4 424.2 426.0 429.6 424.2 435.5 434.3 445.1 775.3 7794.8 759.0 769.2 794.1 876.1 876.1 876.1	.47 .49 .50 .52 .53 .54 .55 .61 .62 .64 .65 .66 .67	77 99 10 10 12 12 13 14 16 16 16 16 18 18 19 17 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	1.96 1.96 1.97 1.97 2.01 2.29 4.06 2.65 2.31 2.14 2.32 2.22 2.33 2.32 2.32 2.32	E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.257 1.321 1.384 1.460 1.511 1.562 1.613	424.4 424.2 426.0 429.6 424.2 435.5 434.3 445.1 704.5 775.1 3794.8 759.0 769.0 769.1 839.2 873.1 876.1 876.1	.47 .49 .50 .52 .53 .54 .55 .56 .51 .62 .64 .65 .66 .67	79 90 90 90 90 90 90 90 90 90 90 90 90 90	1.96 1.97 1.97 1.94 1.97 2.01 2.29 4.06 2.65 2.35 2.31 2.14 2.32 2.32 2.33 2.30 2.32 2.33 2.30 2.32	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765	424.4 424.2 426.4 430.0 429.6 424.2 435.3 445.1 704.5 775.3 794.8 759.0 769.2 873.1 876.1 876.1 876.1 937.3	.47 .49 .50 .52 .53 .54 .55 .56 .64 .65 .66 .67 .71 .72	77 99 10 10 10 10 10 10 10 10 10 10 10 10 10	1.96 1.97 1.97 1.94 1.97 2.01 1.2.29 4.06 2.65 2.35 2.31 2.14 2.32 2.32 2.32 2.32 2.32 2.32 2.32	E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.384 1.460 1.511 1.562 1.613 1.663 1.765 1.816	424, 4 424, 2 426, 4 430, 0 429, 6 424, 2 435, 3 445, 1 704, 5 775, 1 751, 3 794, 8 759, 0 769, 2 769, 2 873, 1 876, 1 876, 1 876, 1 876, 1 876, 1 937, 3 935, 0	.47 .49 .50 .53 .54 .55 .56 .57 .62 .64 .65 .66 .67 .70	77 99 10 10 10 10 10 10 10 10 10 10 10 10 10	1.96 1.96 1.97 1.97 2.01 1.94 4.06 2.65 2.31 2.14 2.32 2.32 2.32 2.32 2.32 2.32 2.32 2.3	E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1 . 067 1 . 156 1 . 232 1 . 257 1 . 321 1 . 384 1 . 460 1 . 511 1 . 562 1 . 689 1 . 765 1 . 816 1 . 816	424.4 424.2 426.0 429.6 424.2 435.5 434.3 445.1 704.5 775.3 794.8 759.0 769.2 794.1 876.1 876.1 876.1 876.1 876.1	.47 .49 .50 .53 .54 .55 .56 .57 .59 .61 .62 .64 .65 .70 .73	77 99 90 92 92 93 94 96 96 97 96 98 97 98 98 98 98 98 98 98 98 98 98 98 98 98	1.96 1.97 1.97 1.97 2.01 2.29 4.06 2.35 2.31 2.14 2.32 2.33 2.20 2.32 2.33 2.20 2.32 2.32	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	
. 165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.663 1.765 1.816 1.816 1.867	424.4 424.2 426.4 430.0 429.6 424.2 435.3 445.1 704.5 775.3 794.8 759.0 769.2 873.2 873.2 874.1 874.1 937.3 935.0 910.4 908.7	.47 .49 .50 .52 .53 .54 .55 .56 .51 .62 .64 .65 .66 .67 .71 .72 .73	7900223466884771334476654771198866	1.96 1.97 1.97 1.97 2.01 2.29 4.06 2.35 2.31 2.14 2.29 2.32 2.32 2.32 2.32 2.32 2.32 2.32	E+04 E+04	
. 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1 . 067 1 . 156 1 . 232 1 . 257 1 . 321 1 . 384 1 . 460 1 . 511 1 . 562 1 . 689 1 . 765 1 . 816 1 . 816	424.4 424.2 426.0 429.6 424.2 435.5 434.3 445.1 704.5 775.3 794.8 759.0 769.2 794.1 876.1 876.1 876.1 876.1 876.1	.47 .49 .50 .52 .53 .54 .55 .56 .64 .65 .66 .67 .71 .72 .73 .75 .75	79 90 90 90 90 90 90 90 90 90 90 90 90 90	1.96 1.97 1.97 1.97 2.01 2.29 4.06 2.35 2.31 2.14 2.32 2.33 2.20 2.32 2.33 2.20 2.32 2.32	E+04 E+04	

POINT SERIAL NO. 2114.120 (TIME= 730.50 SEC) LOGP PRESSURE(PE-3) 16.11 MPA FCV TEMPERATURE (TE-FCV-TT) 613.3 K LHP INLET ENTHALPY 1.591E+06 J/KG TEST SECTION: PRESSURE .47 MPA SAT TEMP 423.05 K MASS FLUX 15.65 KG/SEC-M**2 INLET QUALITY . 454 INLET ENTHALPY 1.591E+06 J/KG QUENCH FRONT: **ELEVATION** .973 M VELOCITY .0014 M/SEC QUALITY .611 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (K) (M) (M) 1.537 .564 580.6 .720 .650 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION XE W/M##2 W/M##2 (K) (M) .013 418.3 .456 1.95E+04 425.3 .462 1.97E+04 .051 423.7 .464 .063 1.971+04 427.4 .089 .467 1.97E+04 . 114 423.2 .471 1.96E+04 423.9 . 140 . 475 1.96E+04 424.3 1.97E+04 . 165 .479 .317 424.1 .502 1.97E+04 . 394 425.9 .514 1.96E+04 429.1 .525 1.98E+04 .470 1.97E+04 .546 428.7 .537 423.7 .622 .548 1.98E+04 .698 433.1 .560 1.99E+04 430.7 .775 .572 2.02E+04 .851 435.1 . 584 2.07E+04 .598 .927 463.4 2.72E+04 1.003 736.7 .620 4.86E+04 1.067 732.2 .638 2.40E+04 1.156 779.0 2.31E+04 .654 1..32 745.5 .667 2.13E+04 1.257 754.7 .671 2.28E+04

.682

.694

.707

.716

.725

.733

.747

.760

.769

.777

.786

. 799

.812

2.27E+04

2.30E+04

2.31E+04

2.17E+04

2.27E+04

2.28E+04

2.28E+04

2.27E+04

2.14E+04

2.23E+04

2.23E+04

2.23F+04

2.21E+04

1.321

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.994

2.070

781.0

824.7

858.7

861.9

844.5

860.5

896.8

924.6

922.8

899.2

898.0

913.9

931.6

INEL POST-CHE EXPERIMENT NO. 114

POINT SERIA	L NO. 3	114.110	(TIME=	687	.50 SEC)
LOOP PRESSU	RE(PE-3)		1	16.12	MPA
FCV TEMPERA	TURELTE -	FCV-1T)	- 6	12.3	K
LHP INLET E	NTHAL PY	100000	1.582	E+06	J/KG
TEST SECTIO	N:				
PRESSU				.47	MPA
SAT TE			42	2.98	
MACC F	LIIV		-	5 90	MC/SEC-M##2
INLET	OHAL L			450	NO/ OLO II L
INLET	ENTHAL PY		1 582	F+06	L/KG
QUENCH FRON	T.		1, 200		37 110
QUENCH FROM	LON			.916	м
LLLYMI	TV				M/SEC
VELUCI	ION IY Y				
				.594	
NET LHP POW	EK 10 H	010		0.0	M
Trunc	DATHER N	T. COUNTERFAIT	10017	T CON	ALCODMATION:
VAPOR TEMPE					INFURMATION
ELEVATION	DZQF	IV	XE	XA	
(M)	(M)	(K)			
1.841	.926	743.1	.763	.579	

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	417.9	. 452	1.96E+04	
.051	425.4	.457	1.95E+04	
.063	423.8	.459	1.95E+04	
.089	427.6	.463	1.96E+04	
.114	423.2	.467	1.96E+04	
. 140	423.9	.471	1.96E+04	
. 165	424.4	.475	1.96E+04	
.317	424.2	.497	1.96E+04	
. 394	426.4	.509	1.96E+04	
.470	430.0	.520	1.97E+04	
.546	429.6	.532	1.97E+04	
.622	424.2	.543	1.94E+04	
.698	435.5	.554	1.97E+04	
.775	434.3	.566	2.01E+04	
.851	445.1	.578	2.29E+04	
.927	704.5	.597	4.06E+04	
1.003	775.1	.616	2.65E+04	
1.067	751.3	.628	2.35E+04	
1.156	794.8	.644	2.31E+04	
1.232	759.0	.657	2.14E+04	
1,257	769.2	.661	2.32E+04	
1.321	794.1	.673	2.29E+04	
1.384	839.2	. 684	2.32E+04	
1,460	873.1	.697	2.33E+04	
1.511	876.1	.706	2.20E+04	
1.562	858.1	.715	2.32E+04	
1.613	874.1	.724	2.32E+04	
1.689	910.0	.737	2.30E+04	
1.765	937.3	.751	2.29E+04	
1.816	935.0	.759	2.16E+04	
1.867	910.4	.768	2.24E+04	
1.918	908.7	.776	2.23E+04	
1.994	924.2	.789	2.22E+04	
The second second	AT THE . T. P. 181	2 2.50 (2)	THE R. SEC. SEC. S. LEWIS CO., LANSING.	

.802

2.22E+04

941.5

2.070

POINT SERIAL NO. 3114.130 (TIME= 800.50 SEC) POINT SERIAL NO. 3114.120 (TIME= 730.50 SEC) LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 16.11 MPA 613.3 K LHP INLET ENTHALPY TEST SECTION: 1.591E+06 J/KG .47 MPA PRESSURE 423.05 K SAT TEMP 15.65 KG/SEC-M**2 MASS FLUX INLET QUALITY .454 INLET ENTHALPY 1.591E+06 J/KG QUENCH FRONT: .973 M ELEVATION VELOCITY .0014 M/SEC QUALITY .611 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) 724.6 .773 .594 .869 1.841 ATHER MEASUREMENT LOCATION INFORMATION

ELEVATION (K) (M) (K) (K) (K) (K) (WALL TEMPER	ATURE MEASU	REMENT LOC	CATION INFORMAT	
.013	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
.051	(M)	(K)		W/M**2	M/W**2
.051	.013	418.3	.456	1.95E+04	
.063			.462	1.97E+04	
.089		423.7	.464	1.97E+04	
114					
140			.471		
165				1.968+04	
317 424.1 502 1.97E+04 394 425.9 514 1.96E+04 470 429.1 525 1.98E+04 546 428.7 537 1.97E+04 622 423.7 548 1.98E+04 698 433.1 560 1.99E+04 775 430.7 572 2.02E+04 851 435.1 584 2.07E+04 927 463.4 598 2.72E+04 1.003 736.7 620 4.86E+04 1.067 732.2 638 2.40E+04 1.156 779.0 .654 2.31E+04 1.232 745.5 .667 2.13E+04 1.257 754.7 .671 2.28E+04 1.321 781.0 .682 2.27E+04 1.321 781.0 .682 2.27E+04 1.321 781.0 .682 2.27E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.689 896.8 .747 <td></td> <td></td> <td></td> <td>1.97E+04</td> <td></td>				1.97E+04	
.394 425.9 .514 1.96E+04 .470 429.1 .525 1.98E+04 .546 428.7 .537 1.97E+04 .622 423.7 .548 1.98E+04 .698 433.1 .560 1.99E+04 .775 430.7 .572 2.02E+04 .927 463.4 .598 2.72E+04 .927 463.4 .598 2.72E+04 1.003 736.7 .620 4.86E+04 1.156 779.0 .654 2.31E+04 1.232 745.5 .667 2.13E+04 1.232 745.5 .667 2.13E+04 1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.360 858.7 .707 2.31E+04 1.561 844.5 .725 2.27E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 </td <td></td> <td></td> <td></td> <td>1.97E+04</td> <td></td>				1.97E+04	
. 470			.514	1.96E+04	
.546 428.7 .537 1.97E+04 .622 423.7 .548 1.98E+04 .698 433.1 .560 1.99E+04 .775 430.7 .572 2.02E+04 .927 463.4 .598 2.72E+04 .927 463.4 .598 2.72E+04 .003 736.7 .620 4.86E+04 1.067 732.2 .638 2.40E+04 1.156 779.0 .654 2.31E+04 1.232 745.5 .667 2.13E+04 1.257 754.7 .671 2.28E+04 1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.669 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.816 922.8 .769 2.14E+04 1.816 922.8 .769 2.14E+04 1.816 922.8 .769 2.23E+04			. 525	1.98E+04	
.622				1.97E+04	
.698				1.98E+04	
.775 430.7 .572 2.02E+04 .851 435.1 .584 2.07E+04 .927 463.4 .598 2.72E+04 1.003 736.7 .620 4.86E+04 1.067 732.2 .638 2.40E+04 1.156 779.0 .654 2.31E+04 1.232 745.5 .667 2.13E+04 1.257 754.7 .671 2.28E+04 1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.994 913.9 .799 2.23E+04				1.99E+04	
1.003				2.02E+04	
.927				2.07E+04	
1.003	927			2.72E+04	
1.067 732.2 .638 2.40E+04 1.156 779.0 .654 2.31E+04 1.232 745.5 .667 2.13E+04 1.257 754.7 .671 2.28E+04 1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.663 860.5 .733 2.28E+04 1.669 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.867 899.2 .777 2.23E+04 1.994 913.9 .799 2.23E+04				4.86E+04	
1.156			.638		
1.232 745.5 .667 2.13E+04 1.257 754.7 .671 2.28E+04 1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04				2.31E+04	
1.257 754.7 .671 2.28E+04 1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.669 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04				2.13E+04	
1.321 781.0 .682 2.27E+04 1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04					
1.384 824.7 .694 2.30E+04 1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04					
1.460 858.7 .707 2.31E+04 1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04					
1.511 861.9 .716 2.17E+04 1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04					
1.562 844.5 .725 2.27E+04 1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04			.716	2.17E+04	
1.613 860.5 .733 2.28E+04 1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04			.725	2.27E+04	
1.689 896.8 .747 2.28E+04 1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04			733	2.28E+04	
1.765 924.6 .760 2.27E+04 1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04					
1.816 922.8 .769 2.14E+04 1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04			.760	2.27E+04	
1.867 899.2 .777 2.23E+04 1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04			.769	2.14E+04	
1.918 898.0 .786 2.23E+04 1.994 913.9 .799 2.23E+04				2.23E+04	
1.994 913.9 .799 2.23E+04				2.23E+04	
1.1.5 (1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.					

PUINT SERIAL NO. 3114.130	fille- ooo	. 30 5001
LOOP PRESSURE(PE-3)	16.02	MPA
FCV IEMPERATURE (TE-FCV-11)	613.4	K
LHP INLET CATHALPY	1.592E+06	J/KG
TEST SECT ON	2.7	****
PRESSURE		MPA
SAT TEMP	423.06	K
MASS FLUX		KG/SEC-M**2
INLET QUALITY	.454	
INLET ENTHALPY	1.592E+06	J/KG
QUENCH FRONT:		
ELEVATION	1.066	M
VELOCITY	.0013	M/SEC
QUALLIY	.625	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA DZQF TV (K)

201 1 271 608

1.841	. 776	701.1 .771	.604	
WALL TEMPER	ATURE MEA	SUREMENT LOCA	TION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M'.W 5	M/W**5

.013	418.9	.457	2.03E+04	
.051	425.1	.462	1.98E+04	
.063	423.6	.464	1.97E+04	
.089	427.1	.468	1.97E+04	
.114	423.2	.472	1.97E+04	
.140	423.8	.476	1.97E+04	
. 165	424.2	,480	1.97E+04	
.317	423.6	.504	1.98E+04	
. 394	425.3	.515	1.98£+04	
.470	428.0	.527	1.98£+04	
.546	427.5	.539	1.99E+04	
.622	422.9	.551	1.98E+04	
.698	430.5	.562	1.99E+04	
.775	428.0	.574	2.00E+04	
. 851	429.2	.586	2.02E+04	
.927	442.7	.598	2.06E+04	
1,003	432.8	.611	2.07E+04	
1,067	649.5	.625	3.86E+04	
1.156	748.4	.647	2.45E+04	
1.232	722.9	.661	2.19E+04	
1.257	729.9	.666	2.37E+04	
1.321	761.0	.677	2.29£+04	
1.384	802.6	.688	2.31E+04	
1,460	836.7	.702	2.34E+04	
1,511	838.3	.711	2.22E+04	
1.562	819.8	.720	2.38E+04	
1.613	838.4	.730	2.35E+04	
1.689	876.7	.744	2.33E+04	
1.765	905.7	. 758	2.32E+04	
1.816	904.8	.766	2.18E+04	
1.867	882.5	.775	2.29E+04	
1.918	882.1	. 784	2.29E+04	
1.994	898.6	.798	2.26E+04	
2.070	916.9	.811	2.26E+04	

900.9

.807

2.28E+04

1.994

2.070

868.3

886.7

.826

2.34E+04

2.33E+04

.715

.726

.732

.739

.745

.753

.760

2.80E+04

2.63E+04

2.38E+04

2.42E+04

2.25E+04

1.91E+04

1.35E+04

1005.9

1016.1

1001.6

960.4

943.9

932.0

903.3

1.689

1.765

1.816

1.867

1.918

1.994

2.070

INEL POST-CHE EXPERIMENT NO. 115 POINT SERIAL NO. 1115.020 (TIME= 192.50 SEC) POINT SERIAL NO. 2115.020 (TIME= 192.50 SEC) LOOP PRESSURE(PE-3) 16.06 MPA 16.06 MPA FCV TEMPERATURE(TE-FCV-1T) 16.06 MPA 614.1 K 614.1 K FCV TEMPERATURE(TE-FCV-TT) 614.T K LHP INLET ENTHALPY 1.598E+06 J/KG LHP INLET ENTHALPY 1.598E+06 J/KG TEST SECTION: .49 MPA 424.03 K TEST SECTION: .49 MPA .49 MPA PRESSURE PRESSURE SAT TEMP MASS FLUX .49 MPA 424.03 K 23.20 KG/SEC-M**2 SAT TEMP MASS FLUX 23.20 KG/SEC-M**2 .456 INLET QUALITY INLET QUALITY .456 INLET QUALITY .456
INLET ENTHALPY 1.598E+06 J/KG INLET ENTHALPY 1.598E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .252 M ELEVATION .252 M VELOCITY .0032 M/SEC VELOCITY .0032 M/SEC .494 .495 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF IV XE XA (M) (M) (K) (M) (M) (K) 1,284 767.0 .688 .512 1.232 .980 692.3 .650 .513 1.537 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 W/M##2 (M) (K) (M) (K) W/M##2 2.03E+04 2.15E+04 .013 433.3 .013 433.2 .457 .457 2.03E+04 2.16E+04 .461 .051 .461 .051 441.7 441.7 434.9 .063 2.01E+04 434.9 .463 .063 .463 2.02F+04 .089 2.11E+04 447.0 .465 2.11E+04 .089 447.1 .465 . 114 2.14E+04 441.3 .468 .468 2.14E+04 . 114 441.3 2.15E+04 . 140 .471 .140 436.2 .471 2.20E+04 435.8 3.81E+04 . 165 4441.4 .475 . 165 440.7 .475 3.94E+04 .317 781.2 .509 4.91E+04 .317 773.4 .509 4.79E+04 3.69£+04 . 394 845.9 .526 843.1 .526 3.68E+04 . 394 3.54E+04 .540 .470 878.0 880.3 .540 3.52E+04 .470 3.41E+04 .546 902.9 .546 905.0 .554 . 554 3.38E+04 .567 .567 .622 916.2 3.32E+04 .622 914.4 3.30E+04 3.20E+04 .698 929.8 .698 931.5 .580 .580 3.19E+04 3.16E+04 940.2 .593 .775 938.6 .593 3.135+04 -775 3.05E+04 948.0 .605 .851 946.5 3.03E+04 .851 .605 .927 945.1 .617 2.90E+04 .927 943.7 .616 2.84E+04 2.46E+04 1 003 914.0 1.003 914.9 .628 .627 2.45E+04 825.3 825.8 .635 1.96E+04 3.09E+02 1.067 .634 1.657 1.94E+04 4.56E+02 1.156 2.00E+04 1.99E+04 867.0 .644 1.156 866.6 1.99E+04 .643 .652 1.232 837.8 1.232 838.3 .651 1.99E+04 2.27E+04 .654 1.257 851.6 .655 1.257 851.0 2.24F+04 1.321 875.4 .663 2.37E+04 1,321 874.7 .662 2.36E+04 1.384 941.0 .671 2.67E+04 1.384 940.1 2.64E+04 .670 1.460 975.5 .682 2.76E+04 1.460 974.6 .680 2.74E+04 2.661+04 1.511 986.2 .689 1.511 979.2 .688 2.65E+04 958.7 .696 2.84E+04 1.562 1,562 957.8 .695 2.85E+04 1.613 .704 1.613 977.2 2.88E+04 976.2 .702 2.87E+04

1.689

1.765

1.816

1.867

1.918

1.994

2.070

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.724

.731

.737

. 743

.751

.758

2.78E+04

2.61E+04

2.36E+04

2.40E+04

2.23E+04

1.90E+04

1.35E+04

1005.0

1015.3

1000.9

959.8

943.5

931.9

903.6

1.918

1.994

2.070

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.752

.758

INEL POST-CHF EXPERIMENT NO. 115 INEL POST-CHF EXPERIMENT NO. 115 POINT SERIAL NO. 3115.020 (TIME= 193.50 SEC) POINT SERIAL NO. 1115.030 (TIME= 215.50 SEC) LOOP PRESSURE (PE-\$) 16.10 MPA LOOP PRESSURE(PE-3) 16.05 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 614.2 K 614.8 K LHP INLET ENTHALPY 1.598E+06 J/KG 1.603E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE .49 MPA PRESSURE . 49 MPA SAT TEMP SAT TEMP 424.02 K 424.06 K 23.13 KC/SEC-M**2 23.08 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY .458 .456 INLET ENTHALPY INLET ENTHALPY 1.598E+06 J/KG 1.603E+06 J/KG QUENCH FRONT: QUENCH FRONT: .255 M ELEVATION .325 M ELEVATION .0032 M/SEC VELOCITY .0032 M/SEC VELOCITY QUALITY .505 .495 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZQF TV XE XA ELEVATION DZQF (M) (M) (M) (K) (M) (K) 1.232 .906 661.5 .645 .521 1.841 1.586 845.6 .731 .513 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP ELEVATION TEMP XE HEAT FLUX XE HEAT FLUX HEAT LOSS W/M##2 W/M**2 (M) (K) W/M**2 (M) (K) W/M##2 433.3 2.03E+04 .013 430.7 .459 1.94E+04 .013 .457 441.6 .461 2.16E+04 .051 436.1 .463 2.00E+04 .051 2.02E+04 .063 431.9 .465 1.96E+04 .063 434.8 .463 .089 .465 2.11E+04 442.3 .467 2.01E+04 .089 446.9 . 114 .114 441.2 .468 2.14E+04 435.7 .470 2.02E+04 . 140 .471 436.1 2.20E+04 . 140 431.1 .473 1.97E+04 . 165 441.2 .475 3.89E+04 . 165 433.3 .475 2.02E+04 .317 .317 769.1 .509 4.80E+04 532.7 .503 4.95E+04 . 394 .526 .521 842.1 3.69E+04 . 394 799.7 4.13E+04 .540 .536 .470 877.2 3.52E+04 .470 841.0 3.50E+04 546 902.2 .554 3.38E+04 .546 870.0 .550 3.30E+04 3.30E+04 .622 .622 913.7 .567 883.9 .563 3.20E+04 3.18E+04 .698 .698 929.1 .580 902.1 .575 3.08E+04 .775 .593 3.13E+04 .775 912.3 938.0 .588 3.02E+04 3.02E+04 .851 .851 946.0 .605 922.5 .600 2.94E+04 .927 2.84E+04 923.5 .617 .927 943.3 . 511 2.80E+04 913.7 .627 2.45E+04 1,003 901.6 1.003 .622 2.52E-04 1.067 825.3 .634 1.94E+04 4.90E+02 1.067 822.7 .629 2.04E+04 9.45E+02 1.99E+04 1.156 1.156 866.6 . 643 864.1 .639 2.12E+04 1.68E+02 1.232 837.7 .651 1.99E+04 1.232 832.7 .647 2.10E+04 1.257 850.8 .654 2.24E+04 1.257 843.4 .650 2.36E+04 1.321 874.5 .662 2.36E+04 1.321 865.0 .658 2.39E+04 2.64E+04 939.7 .670 1.384 924.6 1.384 .666 2.58E+04 974.2 .681 2.74E+04 1.460 957.3 1.460 .677 2.67E+04 978.8 .688 2.64E+04 1.511 1.511 961.6 .684 2.56E+04 957.3 .695 2.84E+04 1.562 938.7 .691 1,562 2.77E+04 .703 2.87E+04 1.613 1.613 975.8 956.5 .698 2.79E+04 1004.6 .714 2.77E+04 1.689 1.689 987.1 .709 2.74E+04 .725 2.61E+04 1.765 1014.9 1.765 1000.6 .720 2.59E+04 .731 .726 1.816 1000.6 2.37E+04 1.816 988.8 2.36E+04

1.867

1.918

1.994

2.070

.733

.739

.748

.755

2.41E+04

2.31E+04

2.04E+04

1.66E+04

949.7

936.8

931.9

915.0

2.39E+04

2.23E+04

1.91E+04

1.36E+04

914.2

.756

1.65E+04

```
POINT SERIAL NO. 2115.030 (TIME= 215.50 SEC)
                                                                          POINT SERIAL NO. 3115.030 (TIME= 215.50 SEC)
                                                                          FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

16.10 MPA
614.6 K
1.601E+06 J/KG
LOOP PRESSURE(PE-3) 16.10 MPA
FCY TEMPERATURE(TE-FCV-1T) 614.6 K
LHP INLET ENTHALPY 1.601E+06 J/KG
TEST SECTION:
   PRESSURE
SAT TEMP
MASS FLUX
INLET QUALITY
INLET ENTHALPY
CH (RONT:

49 MPA
424.06 K
23.08 KG/SEC-M**2
1.601E+06 J/KG
                                                                              QUENCH TRONT:
                                                                          QUENCH FRONT:
    ELEVATION
                                    .325 M
                                                                              VELOCITY .0032 M/SEC
                             .325 M
.0032 M/SEC
    VELOCITY
    QUALITY
                                .503
                                                                          QUALITY .503
NET LHP POWER TO FLUID 0.0 W
NET LHP POWER TO FLUID
                                   0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV
                           XE XA
                                                                          ELEVATION DZQF TV XE XA
 (M)
             (M)
                      (K)
                                                                           (M)
                                                                                      (M)
                                                                                                 (K)
1.537
            1.211 738.4 .685 .521
                                                                                     1.516 821.9 .727 .519
                                                                           1.841
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          WALL TEMPERATURE MEASUREMENT LOCATION IMPORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                          ELEVATION TEMP XE HEAT FLUX HEAT LOSS
 (M)
              (K)
                                   M/WH#5
                                                   W/M*#2
                                                                                         (K)
                                                                           (M)
                                                                                                                W/M**2
                                                                                                                               W/M##2
                      .459 1.95E+04
.463 2.02E+04
.464 1.97E+04
.467 2.01E+04
.469 2.03E+04
.472 1.99E+04
                                                                                        430.6 .459 1.95£+04

436.4 .463 2.02£+04

432.0 .464 1.97£+04

442.4 .467 2.01£+04

435.9 .469 2.03£+04

431.4 .470 1.99£+04

433.6 .475 2.04£+04
 .013
              430.6
                                                                            .013
 .051
              436.4
                                                                            .051
 .063
              432.0
                                                                            .063
  .089
              442.4
                                                                            .089
  . 114
              435.9
                                                                            .114
  . 140
              431.4
                                                                            .140
 .165
              433.6
                         .475
                                  2.04E+04
                                                                            . 165
  .317
              562.0
                                  4.50E+04
                         .501
                                                                                                    .501
                                                                            .317
                                                                                         562.0
                                                                                                              4.50E+04
                         .520
  394
              797.0
                                  5.18E+04
                                                                            .394
                                                                                         797.0
                                                                                                     .520 5.18E+04
                               3.52E+04
3.32E+04
3.31E+04
3.09E+04
3.04E+04
2.94E+04
2.81E+04
                         .537
  . 70
              840.5
                                                                                                    .537 3.52E+04
.551 3.32E+04
.564 3.21E+04
                                                                            .470
                                                                                         840.5
                         .551
  Sec. 1
              869.8
                                                                            .546
                                                                                         869.8
 .62
              883.8
                         .564
                                                                            .622
                                                                                         883.8
                                                                                                          3.09E+04
3.04E+04
2.9hE+0h
  .69
              902.0
                         .576
                                                                                         902.0
                                                                                                    .576
                                                                            .698
                         .58.
 .77
              912.3
                                                                            .775
                                                                                         912.3
                                                                                                    .589
  .851
                         .600
              922.5
                                                                            .851
                                                                                         922.5
                                                                                                    .600
                                                                                                               2.9hE+04
                                                                                                    .600 2.9hE+04
.612 2.81E+04
.623 2.53E+04
.630 2.04E+04
.640 2.12E+04
 .927
              923.4
                         .612
                                                                            .927
                                                                                         923.4
                                2.53E+04
2.04E+04
2.12E+04
2.11E+04
2.35E+04
 1.003
              901.3
                         .623
                                                                                         901.3
                                                                           1.003
                         .630
 1.067
              822.3
                                                                           1.067
                                                                                         822.3
                                                                                                                              9.79E+02
 1.156
                         .640
              863.6
                                                                           1.156
                                                                                         863.6
                                                                                                                              1.58E+02
 1.232
              832.4
                         648
                                                                           1.232
                                                                                         832.4
                                                                                                    .648
                                                                                                          2.11E+04
 1.257
              943.0
                         -651
                                                                           1.257
                                                                                         843.0
                                                                                                    .651 2.35E+04
                         .659
 1.321
              864.8
                                  2.40E+04
                                                                                                    .659
                                                                           1.321
                                                                                         864.8
                                                                                                              2.40E+04
 1.384
                         .667
              924.5
                                   2.60E+04
                                                                           1.384
                                                                                         924.5
                                                                                                    .667
                                                                                                           2.60E+04
2.67E+04
 1,460
              957.3
                         .678
                                   2.67E+04
                                                                           1.460
                                                                                         957.3
                                                                                                    .678
 1.511
              961.6
                         .685
                                   2.57E+04
                                                                           1.511
                                                                                         961.6
                                                                                                               2.57E+04
                                                                                                    .685
 1.562
              938.7
                         .692
                                   2.74E+04
                                                                           1.562
                                                                                         938.7
                                                                                                    .692
                                                                                                              2.74E+04
 1.613
              956.6
                         .699
                                    2.76E+04
                                                                                                    .699
                                                                           1.613
                                                                                         956.6
                                                                                                               2.76E+04
 1.689
              987.1
                         .710
                                    2.71E+04
                                                                                                    .710
                                                                           1.689
                                                                                         987.1
                                                                                                              2.71E+04
 1.765
             1000.5
                         .721
                                    2.59E+04
                                                                           1.765
                                                                                        1000.5
                                                                                                    .721
                                                                                                              2.59E+04
 1.816
              988.6
                         .727
                                    2.38E+04
                                                                                                    .727
                                                                           1.816
                                                                                         988.6
                                                                                                               2.38E+04
 1.867
                         . 734
              949.5
                                    2.40E+04
                                                                           1.867
                                                                                         949.5
                                                                                                    . 734
                                                                                                               2.40E+04
 1.918
              936.5
                         . 740
                                 2.29E+04
                                                                           1.918
                                                                                                    . 740
                                                                                         936.5
                                                                                                               2.29E+04
1.994
              931.5
                         .749
                                 2.04E+04
                                                                           1.994
                                                                                                    .749
                                                                                         931.5
                                                                                                               2.04E+04
```

2.070

914.2

.756

1.651+04

918.8

.758

1.89E+04

```
POINT SERIAL NO. 1115.040 (TIME= 233.50 SEC)
                                                                         POINT SERIAL NO. 2115.040 (TIME= 233.50 SEC)
                                  16.05 MPA
LOOP PRESSURE(PE-3)
                                                                         LOOP PRESSURE ( PE-3)
                                                                                                            16.05 MPA
FCV TEMPERATURE ( IE-FCV-1T)
                                  614.0 K
                                                                         FCV TEMPERATURE (TE-FCV-1T)
                                                                                                           614.1 K
LHP INLET ENTHALPY
                              1.596E+06 J/KG
                                                                                                        1.598E+06 J/KG
                                                                         LHP INLET ENTHALPY
TEST SECTION:
                                                                         TEST SECTION:
     PRESSURE
                                    .49 MPA
                                                                                                              .49 MPA
                                                                              PRESSURE
     SAT TEMP
                                 423.92 K
                                                                                                           423.92 K
                                                                              SAT TEMP
     MASS FLUX
                                 23.27 KG/SEC-M**2
                                                                                                           23.27 KG/SEC-M**2
                                                                              MASS FLUX
     INLET QUALITY
                                                                                                             . 456
                                   . 455
                                                                              INLET QUALITY
     INLET ENTHALPY
                              1.596E+06 J/KG
                                                                              INLET ENTHALPY
                                                                                                        1.598E+06 J/KG
QUENCH FRONT:
                                                                         QUENCH FRONT:
     ELEVATION
                                   .383 M
                                                                                                             .383 M
                                                                              ELEVATION
     VELOCITY
                                  .0033 M/SEC
                                                                                                            .0033 M/SEC
                                                                              VELOCITY
     QUALITY
                                   .509
                                                                                                            .509
                                                                              QUALITY
NET LHP POWER TO FLUID
                                    0.0 W
                                                                         NET LHP POWER TO LUID
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             DZQF
                      TV
                                                                                                             XA
                              XE
                                  XA
                                                                         ELEVATION
                                                                                     DZQF
                                                                                               IV
                                                                                                        XE
 (M)
             (M)
                      (K)
                                                                                      (M)
                                                                                               (K)
                                                                          (M)
1.232
             .849
                     643.7
                             .647 .530
                                                                         1.537
                                                                                    1, 153
                                                                                             721.3
                                                                                                      .683 .526
                                                                         WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP
                        XE
                                   HEAT FLUX
                                                  HEAT LOSS
                                                                                       TEMP
                                                                                                 XE
                                                                                                            HEAT FLUX
                                                                                                                           HEAT LOSS
                                                                         ELEVATION
                                    W/M**2
                                                   W/M**2
                                                                                                              W/M**2
                                                                                                                            W/M##2
 (M)
               (K)
                                                                          (M)
                                                                                        (K)
  .013
              429.2
                         .456
                                   1.94E+04
                                                                                                             1.94E+04
                                                                                       429.2
                                                                                                  .457
                                                                           .013
                                                                                                             1.97E+04
                         .460
                                                                                                  .461
  .051
              433.8
                                   1.96E+04
                                                                           .051
                                                                                       434.0
  .063
              430.4
                         .462
                                   1.93E+04
                                                                                                  .462
                                                                                                             1.94E+04
                                                                                       430.5
                                                                           .063
  .089
              439.8
                         .464
                                   2.00E+04
                                                                                                  .465
                                                                                                             1.97E+04
                                                                                       439.9
                                                                           .089
  . 114
              433.0
                         .467
                                    1.97E+04
                                                                                                             1.98E+04
                                                                          .114
                                                                                       433.2
                                                                                                  .467
  . 140
              429.5
                         .469
                                   1.945+04
                                                                          .140
                                                                                       429.6
                                                                                                  .470
                                                                                                             1.94E+04
                                                                                                            1.96E+04
  . 165
              430.9
                         .472
                                   1.95E+04
                                                                          . 165
                                                                                       431.1
                                                                                                  .473
  .317
                         .491
                                                                                                            3.15E+04
              452.9
                                   2.76E+04
                                                                                                  .493
                                                                          .317
                                                                                       462.7
                         .512
  . 394
              746.8
                                   8.28E+04
                                                                                                  .512
                                                                                                            6.37E+04
                                                                                       714.4
                                                                          . 394
                         .536
  .470
                                                                                                  .533
              807.3
                                   3.75E+04
                                                                                       805.8
                                                                                                            4.31E+04
                                                                           .470
  .546
              841.9
                         .550
                                   3.42E+04
                                                                                                  .548
                                                                                                             3.39 € +04
                                                                           .540
                                                                                       841.3
  .622
              858.6
                         .564
                                   3.25E+04
                                                                                       358.3
                                                                                                  .561
                                                                                                             3.24E+04
                                                                          .622
              879.5
                         .576
                                   3.13E+04
                                                                                                  .574
                                                                                                             3.09E+04
  .698
                                                                          .698
                                                                                       879.2
              891.1
                         .588
                                   3.04E+04
                                                                                                             3.03E+04
  .775
                                                                          .775
                                                                                       891.0
                                                                                                  .586
              903.1
                         .600
                                   2.95E+04
                                                                                                  .597
                                                                                                             2.92E+04
  .851
                                                                          .851
                                                                                       903.0
                         .612
  .927
              906.6
                                   2.83E+04
                                                                                       906.4
                                                                                                  .609
                                                                                                             2.82E+04
                                                                           .927
 1.003
              889.3
                         .622
                                   2.63E+04
                                                                                       889.0
                                                                                                  .020
                                                                                                             2.618+04
                                                                          1.003
              817.3
                         .630
                                   2.14E+04
                                                                                                             2.12E+04
 1.067
                                                  1.26E+03
                                                                                                  .627
                                                                                                                           1.26E+03
                                                                          1.067
                                                                                       816.9
                         .640
                                   2.23E+04
                                                                                                             2.21E+04
                                                                                                                           3.98E+02
 1.156
              858.6
                                                  3.53E+02
                                                                                       858.2
                                                                                                  .637
                                                                          1.156
                         .649
 1,232
              826.0
                                   2.21E+04
                                                                                       825.7
                                                                                                  .646
                                                                                                             2.21E+04
                                                                          1.232
 1.257
              834.6
                         .652
                                   2.46E+04
                                                                                                             2.44E+04
                                                                          1.257
                                                                                       834.1
                                                                                                  .649
 1.321
              855.7
                         .660
                                   2.46E+04
                                                                          1.321
                                                                                       855.5
                                                                                                  .657
                                                                                                             2.43E+04
 1.384
              911.9
                         .669
                                   2.63E+04
                                                                                       911.7
                                                                                                             2.61E+04
                                                                          1.384
                                                                                                  . 665
 1.460
              943.2
                         .679
                                   2.67E+04
                                                                          1.460
                                                                                       943.1
                                                                                                  .676
                                                                                                             2.67E+04
 1.511
              947.3
                         .686
                                   2.59E+04
                                                                          1.511
                                                                                       947.2
                                                                                                  .683
                                                                                                             2.56E+04
                                                                                                  .690
 1.562
              923.5
                         .693
                                   2.76E+04
                                                                          1.562
                                                                                       923.2
                                                                                                            2.71E+04
                         .700
 1.613
              941.0
                                   2.77E+04
                                                                          1.613
                                                                                       940.9
                                                                                                  .697
                                                                                                            2.73E+04
                         .711
 1.680
              972.5
                                   2.72E+04
                                                                                       972.4
                                                                                                  .708
                                                                                                            2.70E+04
                                                                          1.689
 1.765
              988.0
                         .722
                                   2.65E+04
                                                                                       987.8
                                                                                                  .718
                                                                                                            2.61E+04
                                                                         1.765
              977.8
                         .728
                                   2.44E+04
                                                                                                  .725
 1.816
                                                                         1.816
                                                                                       977.6
                                                                                                            2.41E+04
 1.867
              940.6
                         . 735
                                   2.47E+04
                                                                                       940.2
                                                                                                  . 731
                                                                                                             2.45E+04
                                                                         1.867
              929.5
                         .741
                                   2.4)E+04
 1.918
                                                                         1.918
                                                                                       929.1
                                                                                                  . 737
                                                                                                            2.36E+04
 1.994
              929.2
                         .750
                                   2.17E+04
                                                                                                            2.15E+04
                                                                         1.994
                                                                                       928.7
                                                                                                  .746
```

2.070

918.1

. 754

1.86E+04

POINT SERIAL NO. 3115.040 (TIME= 233.50 SEC) 16.05 MPA LOOP PRESSURE(PE-3) 614.1 K FCV TEMPERATURE (TE-FCV-11)

1.598E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.92 K SAT TEMP 23.27 KG/SEC-M**2 MASS FLUX INLET QUALITY .456 INLET ENTHALPY 1.598E+06 J/KG QUENCH FRONT: .383 M FLEVATION .0033 M/SEC VELOCITY .509

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K) (M)

0.0 W

1.841 1,458 811.6 .725 .522

QUALITY

2.070

NET LHP POWER TO FLUID

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT LOSS TEMP HEAT FLUX ELEVATION W/M##2 W/M**2 (M) (K) 1.94E+04 .013 429.2 .457 434.0 .461 1.97E+04 .051 1.94E+04 .063 430.5 .462 1.97E+04 .089 439.9 .465 1.981+04 433.2 .467 .114 429.6 .470 1.94E+04 .140 431.1 .473 1.96E+04 . 165 3.15E+04 .317 462.7 .493 6.37E+04 714.4 .512 . 394 .533 4.31E+04 805.8 .470 3.395+04 .546 841.3 -548 858.3 .561 3.24E+04 .622 .574 879.2 3.09E+04 .698 .586 .775 891.0 3.03E+04 2.92E+04 903.0 .597 .851 2.82E+04 .927 906.4 .609 .620 2.61E+04 1.003 889.0 2.12E+04 1.26E+03 1.067 816.9 .627 2.21E+04 3.98E+02 1.156 858.2 .637 2.21E+04 1.232 825.7 .646 .649 834.1 2.44E+04 1.257 2.43E+04 1.321 855.5 .657 2.611+04 1.384 911.7 .665 2.67E+04 1.460 943.1 .676 2.56E+04 947.2 .683 1.511 .690 923.2 2.71E+04 1.562 .697 2.73E+04 940.9 1.613 2.70E+04 1.689 972.4 .708 2.61E+04 .718 987.8 1.765 .725 977.6 2.41E+04 1.816 .731 940.2 2.45F+04 1.867 2.36E+04 1.918 929.1 .737 2.15E+04 1.994 928.7 . 746 . 754 1.86E+04 918.1

POINT SERIAL NO. 1115.050 (TIME= 260.50 SFC)

LOOP PRESSURE (PE-3) 16.04 MPA FCV TEMPERATURE (TE-FCV-11) 614.4 K LHP INLET ENTHALPY 1.600E+06 J/KG TEST SECTION: .48 MPA PRESSURE SAT TEMP 423.79 K 23.14 KG/SEC-M**2 .457 MASS FLUX INLET QUALITY INLET ENTHALPY 1.600E+06 J/KG QUENCH FRONT: ELEVATION .470 M VELOCITY .0032 M/SEC QUALITY .519 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUPEMENT LOCATION INFORMATION ELEVATION DZQF IV XE Y (M) (M; (K)

1,232 .762 612.3 .638 .537

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2
.013	427.3	. 458	1.92E+04	
.051	431.7	.462	1.94E+04	
.063	429.0	.463	1.93E+04	
.089	437.2	.466	1.96E+04	
. 114	430.4	.469	1.97E+04	
. 140	428.0	.471	1.93E+04	
. 165	429.1	. 474	1.93E+04	
.317	439.1	.490	2.11E+04	
. 394	468.1	.499	2.39E+04	
,470	663.5	.519	7.52E+04	
.546	793.5	.541	3.65E+04	
.622	818.0	.554	3.26E+04	
.698	844.2	.567	3.09E+04	
.775	858.7	.579	3.01E+04	
.851	874.4	.591	2.88E+04	
.927	880.3	.602	2.82E+04	
1.003	868.2	.613	2.67E+04	
1.067	805.2	.621	2.20E+04	1.56E+03
1.156	846.3	.632	2.29E+04	8.38E+02
1.232	812.7	.641	2.29E+04	
1.257	818.4	.644	2.45E+04	
1.321	840.3	.652	2.45E+04	
1.384	892.0	.660	2.59E+04	
1.460	922.1	.671	2.63E+04	
1.511	925.8	.677	2.51E+04	
1.562	901.1	. 684	2.60E+04	
1.613	918.3	.691	.64E+04	
1.689	950.8	.702	2.63E+04	
1.765	968.5	.712	2.58E+04	
1.816	960.2	.719	2.39E+04	
1.867	925.1	.725	2.44E+04	
1.918	916.2	.731	2.36E+04	
1.994	921.3	. 741	2.24E+04	
2.070	917.9	.749	2.05E+04	

.743

.752

916.3

921.3

917.6

1.918

1.994

2.070

2.41E+04

2.26E+04

2.07E+04

POINT SERIAL NO. 3115.050 (TIME= 260.50 SEC) POINT SERIAL NO. 2115.050 (TIME= 260.50 SEC) LOOP PRESSURE (PE-3) 16.04 MPA LOOP PRESSURE(PE-3) 16.04 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-11) 614.3 K 614.3 K LHP INLET ENTHALPY 1.600E+06 J/KG 1.600E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: . 48 MPA PRESSURE .48 MPA PRESSURE 423.79 K SAT TEMP 423.79 K SAT TEMP 23.14 KG/SEC-M**2 23.14 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .457 INLET QUALITY .457 INLET ENTHALPY 1.600E+06 J/KG 1.600E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION ,470 M .470 M ELEVATION .0032 M/SEC VELOCITY .0032 M/SEC VELOCITY .519 QUALITY .519 JUAL ITY NET LHP POWER TO FLUID 0.0 W 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF IV XE XA ELEVATION DZQF TV (M) (14) (K) (K) (M) (M) 1.841 1.371 790.2 .724 .530 1.537 690.9 .679 .536 1.067 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP HEAT FLUX XE HEAT FLUX HEAT LOSS TEMP XE ELEVALION W/M##2 W/M##2 (K) W/M##2 (M) W/M##2 (K) (M) 1.94E+04 .013 427.5 .458 .013 427.5 .458 1.94E+04 1.94E+04 .051 431.8 .462 .462 1.94E+04 431.8 .051 .463 1.93E+04 .063 429.1 .463 1.93E+04 429.1 .063 .089 .466 1.95E+04 437.3 .466 1.95E+04 437.3 .089 1.95E+04 . 114 430.5 . 114 .468 430.5 .468 1.958+04 1.92E+04 . 140 428.1 .471 .471 1.92E+04 . 140 428.1 .473 1.93E+04 . 165 429.2 429.2 .473 .93E+04 . 165 .317 439.6 .489 2.12E+04 439.6 .489 2.12E+04 .317 . 394 3.49E+04 470.7 470.7 .501 .501 3.49E+04 . 394 5.90E+04 .470 654.2 .519 .519 .470 654.2 5. 90E+04 .540 4.32E+04 . 546 792.2 .540 792.2 4. J2E+04 .546 817.8 .555 3.34E+04 .622 817.8 .555 3.341+04 .622 .698 844.2 .568 3.12E+04 .698 844.2 .568 3.12E+04 .580 3.03E+04 .775 858.7 .580 .775 858.7 3.03E+04 .592 2.91E+04 .851 874.3 .592 2.91E+04 .851 874.3 880.4 .603 2.83E+04 .927 880.4 .603 2.83E+04 .927 1,003 868.2 .614 2.67E+04 1.003 868.2 .614 2.67E+04 .622 2.22E+04 1.40E+03 805.1 1.067 805.1 .622 2.22E+04 1.40E+03 1.067 4.11E+02 .633 2.33E+04 1.156 846.2 1.156 846.2 .633 2.33E+04 4.11E+02 812.7 .642 2.29E+04 1.232 812.7 1.232 .642 2.29E+04 2.51E+04 818.5 .645 1.257 818.5 . 645 2.51E+04 1.257 2.47E+04 840.3 .653 1.321 840.3 .653 2.47E+04 1.321 2.61E+04 1.384 892.1 .662 892.1 2.61E+04 1.384 .662 2.66E+04 922.2 .672 1.460 922.2 1.460 .672 2.66E+04 2.54E+04 1.511 925.9 .679 1.511 925.9 2.54E+04 .679 2.68E+04 1,562 901.3 .686 1.562 901.3 .686 2.68E+04 .693 2.69E+04 1.613 918.5 1.613 918.5 .693 2.69E+04 .704 2.67E+04 1.689 1.689 951.0 951.0 .704 2.67E+04 .714 2.61E+04 1.765 1.765 968.6 968.6 .714 2.61E+04 . 721 960.3 2.43E+04 1.816 960.3 1.816 .721 2.43E+04 2.48E+04 925.2 .727 1.867 .727 1.867 925.2 2.48E+04

1.918

1.994

2.070

916.3

921.3

917.6

734

2 41E+04

2.26E+04

2.07E+04

POINT SERIAL NO. 1115.060 (TIME= 286.50 SEC) 15.98 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 614.2 K 1.599E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .49 MPA PRESSURE 423.91 K SAT TEMP 23.03 KG/SEC-M##2 MASS FLUX INLET QUALITY .456 INLET ENTHALPY 1.599E+06 J/KG QUENCH FRONT: .554 M ELEVATION .0033 M/SEC VELOCITY .527 QUALITY 0.0 W NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.232 .678 587.0 .634 .544

			ATION INFORMAT	
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**S	M/M**2
.013	426.6	.458	1.928+04	
.051	430.7	.462	1.93F+04	
.063	428.2	.463	1.93E+04	
.089	435.5	.465	1.95E+04	
. 114	429.0	.468	1.92E+04	
. 140	427.4	.471	1.93E+04	
.165	428.4	.473	1.93E+04	
.317	434.2	.489	2.00E+04	
. 394	455.4	.497	2.14E+04	
.470	474.9	.507	2.78E+04	
.546	574.9	.525	6.38E+04	
.622	772.7	.546	3.96E+04	
.698	809.0	.560	3.25E+04	
.775	827.4	.573	3.08E+04	
.851	846.8	.585	2.94E+04	
.927	855.3	.596	2.85E+04	
1.003	847.0	.608	2.73E+04	
1.037	791.5	.616	2.29E+04	1,42E+03
1.156	832.0	.627	2.39E+04	7.37E+02
1.232	798.8	.636	2.34E+04	
1.257	802.6	.639	2.54E+04	
1.321	825.3	.648	2.51E+04	
1.384	873.8	.656	2.61E+04	
1.460	903.0	.667	2.64E+04	
1.511	906.5	.674	2.54E+04	
1.562	881.8	.681	2.64E+04	
1.613	898.7	.688	2.65E+04	
1.689	931.9	.698	2.63E+04	
1.765	950.7	.709	2.61E+04	
1.816	>44.0	.715	2.43E+04	
1.867	911.0	.722	2.47E+04	
1.918	903.8	.728	2.42E+04	
1.994	912.3	.738	2.32E+04	
2.070	913.3	.747	2,19E+04	

POINT SERIAL NO. 2115.060 (TIME= 285.50 SEC)

15.98 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-11) 614.2 K 1.599E+06 J/KG LHP INLET ENTHALPY TEST SECTION: PRESSURE .49 MPA 423.95 K SAT TEMP 23.02 KG/SEC-M##2 MASS FLUX INLET QUALITY .456 INLET ENTHALPY 1.599E+06 J/KG QUENCH FRONT: .551 M ELEVATION .0033 M/SEC VELOCITY .527 QUALITY NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.537 .986 669.2 .678 .545

WALL TEMPERA	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION (M)	TEMP (K)	XE	HEAT FLUX	HEAT LOSS
(41)	101		11/11-2	11/11-2
.013	426.6	, 458	1.92E+04	
.051	430.7	.462	1.93E+04	
.063	428.2	.463	1.93E+04	
.089	435.6	.465	1.94E+04	
.114	429.0	.468	1.94E+04	
. 140	427.4	.471	1.92E+04	
. 165	428.4	.473	1.92E+04	
.317	. 434.5	.489	2.01E+04	
. 394	456.3	.497	2.19E+04	
.470	480.5	.508	3.52E+04	
.546	621.3	.526	5.24E+04	
.622	771.1	.546	4.61E+04	
.698	809.9	.561	3.25E+04	
.775	828.3	.574	3.08E+04	
.851	847.8	.586	2.93E+04	
.927	856.2	.598	2.84E+04	
1.003	847.7	.609	2.72E+04	
1.067	791.9	.617	2.28£+04	1.49E+03
1.156	832.4	.628	2.38E+04	7.75E+02
1,232	799.2	.637	2.34E+04	
1.257	803.0	.641	2.53E+04	
1.321	825.7	. 649	2.51E+04	
1.384	874.4	.657	2.61E+04	
1.460	903.7	.668	2.64E+04	
1.511	907.3	.675	2.52E+04	
1.562	882.6	.682	2.64E+04	
1.613	899.5	.689	2 64E+04	
1.689	932.7	.699	2.64E+04	
1.765	951.4	.710	2.60E+04	
1.816	944.7	.716	2.43E+04	
1.867	911.5	. 723	2.48E+04	
1.918	904.2	.729	2.42E+04	
1.994	912.6	. 739	2.31E+04	
2.070	913.3	.748	2.19E+04	

.745

2.37E+04

2.24E+04

906.8

909.6

.738

.747

2.31E+04

2.19E+04

912.2

913.1

1.994

2.070

POINT SERIAL NO. 1115.070 (TIME= 300.50 SEC) POINT SERIAL NO. 3115.060 (TIME= 286.50 SEC) LOOP PRESSURE(PE-3) 16.14 MPA 15.99 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 614.2 K 613.7 K 1.594E+06 J/KG LHP INLET ENTHALPY 1.599E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .49 MPA PRESSURE PRESSURE .49 MPA 423.89 K 423.91 K SAT TEMP SAT TEMP 23.18 KG/SEC-M**2 23.03 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY 454 INLET QUALITY . 456 INLET ENTHALPY 1.594E+96 J/KG INLET ENTHAL PY 1.599E+06 J/KG QUENCH FRONT: QUENCH FRONT: .554 M ELEVATION .601 M ELEVATION .0036 M/SEC VELOCITY .0033 M/SEC VELOCITY .527 .531 **QUALITY** QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LUCATION INTERMA. ON VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF TV XE XA ELEVATION DZQF TV (M) (K) (M) (M) (K) (M) 1.841 1.288 758.4 .719 .539 1.232 .631 570.7 .631 .550 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LS-3 ELEVATION XE W/M##2 W/M##2 W/M##2 (M) (K) W/M##2 (K) (M) .013 .013 .455 1.93E+04 426.6 . 458 1.92E+04 426.1 .459 1.95E+04 .051 430.7 .461 1.93E+04 .051 430.2 427.8 .461 1.92E+04 .063 428.2 .463 1.93E+04 .063 434.8 .463 1.95E+04 .089 435.5 .465 1.94E+04 .089 . 114 428.9 .468 1.946+04 428.4 .466 1.96E+04 .114 . 140 427.4 .470 . 140 427.1 .468 1.92E+04 1.92E+04 . 165 .471 1.93E+04 423.4 .473 1.92E+04 . 165 428.1 .489 .486 1.98E+04 .317 434.3 2.01E+04 .317 432.6 . 394 .497 2.18E+04 451.5 . 4915 2.10E+04 455.9 . 394 .470 478.8 .508 3.40E+04 .470 462.9 .503 2.40[+04 600.1 .525 5.22E+04 .546 489.7 .516 3.96E+04 .546 6.53E+04 .622 766.3 .545 4.70E+04 .622 694.8 .537 808.4 .561 3.26E+04 786.9 .557 3.44E+04 .698 .698 .775 827.0 .574 3.08E+04 809.0 .570 3.15E+04 .775 .851 846.7 .586 2.93E+04 831.3 .582 2.98E+04 .851 .927 855.2 .597 2.84E+04 841.2 .594 2.89E+04 .927 846.0 2.74E+04 1.003 .608 2.72E+04 1.003 834.8 .605 2.33E+04 1.067 791.3 .617 2.28E+04 783.2 .613 1.24E+03 1.54E+03 1.067 1.156 831.8 .627 2.38E+04 7.89E+02 823.3 .624 2.45E+04 4.88E+02 1.156 1.232 798.6 .637 2.34E+04 1.232 790.4 .634 2.38E+04 1.257 802.4 .640 2.53E+04 792.9 .637 2.60E+04 1.257 1.321 825.1 .648 2.51E+04 816.4 . 646 2.53E+04 1,321 1.384 873.7 .657 2.61E+04 .654 2.63E+04 1.384 863.6 1.460 902.9 .667 2.63E+04 1.460 892.5 .665 2.67E+04 1,511 906.5 .674 2.52E+04 1.511 896.1 .672 2.53E+04 1.562 881.8 .681 2.63E+04 1.562 871.3 .678 2.64E+04 1.613 898.8 .688 2.64E+04 1.613 888.2 .685 2.66E+04 921.8 1.689 932.0 .699 2.63E+04 1.689 .696 2.63E+04 .709 1.765 950.8 2.59E+04 1.765 941.2 .706 2.59F+04 .713 1.816 944.0 .716 2.42E+04 1.816 935.1 2.43E+04 910.9 1.867 .722 2.48E+04 1.867 900.2 .719 2.49E+04 .729 1,918 903.7 2.42E+04 . 726 1.918 896.7 2.44E+04

1.994

2.070

.745 2.24E+04

909.4

2.070

POINT SERIAL NO. 3115.076 (TIME= 300.50 SEC) POINT SERIAL NO. 2115.070 (TIME= 300.50 SEC) LOOP PRESSURE(PE-3) 16.14 MPA
FCV TEMPERATURE(TE-FCV-TT) 614.0 K
LHP INLET ENTHALPY 1.596E+06 J/KG
TEST SECTION:
PRESSURE .49 MPA FCV IEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION

16.14 MPA
614.0 K
1.596E+06 J/KG TEST SECTION: PRESSURE .49 MPA

SAT TEMP .423.89 K

MASS FLUX .23.18 KG/SEC-M**2
INLET QUALITY .455
INLET ENTHALPY 1.596E+96 J/KG PRESSURE .49 MFA
SAT TEMP 423.89 K
MASS FLUX 23.18 KG/SEC-M**2
INLET QUALITY .455
INLET ENTHALPY 1.596E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION .601 M
VELOCITY .0036 M/SEC
QUALITY .532
NET LHP POWER TO FLUID 0.0 W VELOCITY .0036 M/SEC QUALITY .532 NET LHP POWER TO FLUID 0.0 W .601 M .601 M VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (14) (M) (K) (N) (K) (M) 1.841 1.240 751.9 .716 .539 1.537 .936 647.2 .675 .552 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS

(M) (K) W/M**2 W/M**2 (M) (K) 1.92E+04 1.94E+04 1.93E+04 1.96E+04 1.94E+0h . 100 427.1 . 469 1.92F+04 165 428.1 472 1.93E+04
317 432.7 .487 1.98E+04
318 451.6 495 2.11E+04
470 464.2 505 2.43E+04
.546 519.2 518 4.25E+04
.622 660.2 538 5.62E+04
.628 785.7 557 3.90E+04
.775 808.6 571 3.16E+04
.851 831.0 583 2.98E+04
.927 841.2 594 2.87E+04
1.003 834.8 606
1.067 783.1 614 2.34E+04
1.156 823.2 625 2.45E+04
1.232 790.3 635 2.38E+04
1.257 793.0 638 2.55E+04 . 165 428.1 .472 1.93E+04 0 464...

46 519.2

22 660.2 .538

785.7 .557 3.16E+0+

775 808.6 .571 3.16E+0+

851 831.0 .583 2.98E+04

.927 841.2 .594 2.87E+04

1.003 834.8 .606 2.75E+04

1.067 783.1 .614 2.34E+04 1.24E+03

1.156 823.2 .625 2.45E+04 5.17E+02

1.156 823.2 .635 2.38E+04

793.0 .638 2.55E+04

793.0 .636 2.52E+04

655 2.63E+04

2.64E+04

2.52E+04 451.6 .394 .1195 2.11E+04 .505 2.43E+04 .518 4.25E+04 .538 5.62E+04 .557 3.90E+04 1.24E+03 5.17E+02 .646 1.321 816.5 2.52E+04 1.384 863.6 .655 2.63E+04 1.460 892.5 .665 2.64E+04 1.511 .672 896.1 2.52E+04 .679 1.562 871.4 2.63E+04 2.63E+04 1.613 888.3 1.613 888.3 -686 .686 2.63E+04 .696 2.62E+04 1.689 921.8 1.689 921.8 .696 2.62E+04 .707 2.59E+04 1.765 941.2 .707 1.765 941.2 2.59E+04 2.42E+04 1.816 935.2 1.816 935.2 .713 .713 2.42E+04 2.48E+04 1.867 903.1 .720 1.867 903.1 .720 2.48E+04 .726 2.43E+04 896.7 1.918 896.7 1.918 .726 2.43E+04 906.7 .736 2.34E+04 909.4 .745 2.24E+04 .736 2.34E+04 1.994 906.7 1.994

2.070

INEL POST-CHE EXPERIMENT NO. 115 INEL POST-CHE EXPERIMENT NO. 115 POINT SERIAL NO. 3115.080 (TIME= 327.50 SEC) POINT SERIAL NO. 2115.080 (TIME= 327.50 SEC) LOOP PRESSURE (PE-3) 16.07 MPA 16.07 MPA LOOP PRESSURE(PE-3) FCV TEMI ERATURE (IE-FCV-1T) 614.4 K FCV TEMPERATURE (TF-FCV-1T) 614.4 K LHP INLET ENTHALPY 1.600E+06 J/KG 1.600E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE .49 MPA .49 MPA PRESSURE SAT TEMP 423.92 K 423.92 K SAT TEMP 22.73 KG/SEC-M**2 22.73 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .457 INLET QUALITY .457 1.600E+06 J/KG 1.600E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRUN :: ELEVATION .697 M .697 M ELEVATION VELOCITY .0035 M/SEC .0035 M/SEC VELOCITY QUALITY .546 .546 QUALITY NET LHP POWER TO FLUID 0.0 W 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF TV XE XA ELEVATION TV DZQF (M) (M) (K) (K) (M) (M) 1.841 1.145 730.6 .721 .552 622.7 .679 .566 1.537 .840 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	M/W**5
.013	425.7	.458	1.94E+04	
.051	429.3	.462	1.94E+04	
.063	427.1	. 463	1.94E+04	
.089	433.7	.466	1.96E+04	
,114	427.4	.469	1.95E+04	
. 140	426.6	.471	1.93E+04	
. 165	427.6	. 474	1.94E+04	
.317	430.6	.489	1.97E+04	
. 394	445.4	.498	2.09E+04	
.470	453.1	.506	2.11E+04	
.546	462.0	.515	2.40E+04	
.622	461.8	.527	3.67E+04	
.698	649.8	.547	5.85E+04	
.775	766.3	.568	4.61E+04	
.851	798.5	.583	3.12E+04	
.927	813.1	.596	2.94E+04	
1.003	810.5	.607	2.80E+04	
1.067	766.4	.616	2.41E+04	8.88E+02
1.156	805.5	.628	2.53E+04	2.66E+02
1.232	773.1	.638	2.425+04	
1.257	774.8	.641	2.5.1+04	
1.321	800.0	.650	2.51E+04	
1.384	844.4	.658	2.61E+04	
1.460	873.0	.669	2.64E+04	
1.511	876.7	.676	2.51E+04	
1.562	852.1	. 683	2.64E+04	
1.613	868.9	.690	2.64E+04	
1.689	903.0	.701	2.61E+04	
1.765	923.6	.711	2.59E+04	
1.816	918.6	.718	2.43E+04	
1.867	888.5	. 724	2.49E+04	
1.918	883.4	.731	2.45E+04	
1.994	895.6	.741	2.39E+04	
2.070	901.0	.750	2.31E+04	

.013	(M)	(K)		W/M**2	W/M**2
.063	.013	425.7	. 458	1.94E+04	
.089	.051	429.3	.462	1.94E+04	
.114	.063	427.1	.463	1.94E+04	
.140	.089	433.7	.466	1.96E+04	
.140	.114	427.4	.469	1.951+04	
.317	. 140	426.6	.471	1.93E+04	
.394	. 165		.474	1.94E+04	
.470	.317	430.6	.489	1.97E+04	
.546 462.0 .515 2.40E+04 .622 461.8 .527 3.67E+04 .698 649.8 .547 5.85E+04 .775 766.3 .568 4.61E+04 .851 798.5 .583 3.12E+04 .927 813.1 .596 2.94E+04 1.003 810.5 .607 2.80E+04 1.067 766.4 .616 2.41E+04 8.88E+02 1.156 805.5 .628 2.53E+04 2.66E+02 1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.563 852.1 .683 2.64E+04 1.689 903.0 .701 2.61E+04 1.816 918.6 .718 2.43E+04 1.816 918.6 .718 2.43E+04 1.894 885.6 .724 2.49E+04	. 394	445.4	.498	2.09E+04	
.546 462.0 .515 2.40E+04 .622 461.8 .527 3.67E+04 .698 649.8 .547 5.85E+04 .775 766.3 .568 4.61E+04 .851 798.5 .583 3.12E+04 .927 813.1 .596 2.94E+04 1.003 810.5 .607 2.80E+04 1.067 766.4 .616 2.41E+04 8.88E+02 1.156 805.5 .628 2.53E+04 2.66E+02 1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.562 852.1 .683 2.64E+04 1.689 903.0 .701 2.61E+04 1.867 888.5 .724 2.49E+04 1.994 885.6 .741 2.39E+04	.470	453.1	.506	2.11E+04	
.622	.546	462.0	.515		
.698	.622		.527	3.67E+04	
.851	.698			5.85E+04	
. 927 813.1 .596 2.94E+04 1.003 810.5 .607 2.80E+04 1.067 766.4 .616 2.41E+04 8.88E+02 1.156 805.5 .628 2.53E+04 2.66E+02 1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.568 990 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.816 918.6 .718 2.43E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	.775	766.3	.568	4.61E+04	
1.003 810.5 .607 2.80E+04 1.067 766.4 .616 2.41E+04 8.88E+02 1.156 805.5 .628 2.53E+04 2.66E+02 1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.994 885.6 .741 2.39E+04	.851		.583	3.12E+04	
1.003	.927	813.1	.596	2.94E+04	
1.156 805.5 .628 2.53E+04 2.66E+02 1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.994 885.6 .741 2.39E+04	1.003	810.5		2.80E+04	
1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.067	766.4	.616	2.41E+04	8.88E+02
1.232 773.1 .638 2.42E+04 1.257 774.8 .641 2.57E+04 1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.156	805.5	.628	2.53E+04	2.66E+02
1.257	1.232	773.1	.638	2.42E+04	
1.321 800.0 .650 2.51E+04 1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.257	774.8	.641	2.57E+04	
1.384 844.4 .658 2.61E+04 1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.321		.650		
1.460 873.0 .669 2.64E+04 1.511 876.7 .676 2.51E+04 1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.384			2.61E+04	
1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.460	873.0	.669	2.64E+04	
1.562 852.1 .683 2.64E+04 1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.511	876.7	.676	2.51E+04	
1.613 868.9 .690 2.64E+04 1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.562		.683		
1.689 903.0 .701 2.61E+04 1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.613		.690	2.64E+04	
1.765 923.6 .711 2.59E+04 1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.689			2.61E+04	
1.816 918.6 .718 2.43E+04 1.867 888.5 .724 2.49E+04 1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.765	923.6	.711	2.59E+04	
1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.816	918.6	.718	2.43E+04	
1.918 883.4 .731 2.45E+04 1.994 895.6 .741 2.39E+04	1.867	888.5	. 724	2.49E+04	
1.994 895.6 .741 2.39E+04	1.918				
	1.994				
	2.070				

. 735

.745

871.6

885.4

892.6

2.49E+04

2.43E+04

2.36E+04

.725

. 735

.745

872.1

885.9

892.9

1.918

1.994

2.070

PGINT SERIAL NO. 3115.090 (TIME= 350.50 SEC) POINT SERIAL NO. 2115,090 (TIME= 349.50 SEC) FCV TEMPERATURE(TE-FCV-1T) 16.13 MPA LHP INLET ENTHALPY 614.3 K 16.14 MPA FCV TEMPERATURE(TE-FCV-1T)

16.14 MP.
614.3 K LHP :NLET ENTHALPY 1.598E+05 J/KG LHP INLET ENTHALPY 1.599E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA . 49 MPA PRESSURE 423.99 K 423.99 K 23.25 KG/SEC-M**2 PRESSURE 424.01 K SAT TEMP SAT TEMP MASS FLUX 23.23 KG/SEC-M**2 .456 MASS FLUX INLET QUALITY .456 INIET QUALITY .456 INLET ENTHALPY 1.599E+06 J/KG INLET QUALITY
INLET ENTHALPY
1.598E+06 J/KG QUENCH FRONT: QUENCH FRONT: .777 M ELEVATION .774 M ELEVATION AFFOCITA .0034 M/SEC VELOCITY .0034 M/SEC .555 .555 0,0 W QUALITY QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (11) (K) (M) (M) (M) 1.841 1.064 713.3 .716 .555 1.537 .763 603.2 .674 .571 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS XE HEAT FLUX HEAT LOSS ELEVATION TEMP ELEVATION W/M*#2 W/M##2 (K) W/M##2 W/M**2 (M) (M) (K) 425.5 .457 1.93f+04 428.9 .461 1.95E+04 426.7 .463 1.95E+04 .457 1.51.4 .461 1.9..+04 .463 1.95E+04 .465 1.96E+04 .468 1.96E+04 .470 1.94E+04 .473 1.94E+04 .489 1.97E+04 .497 2.05E+04 .013 .013 425.5 .051 .051 428.9 .053 .063 426.7 .465 1.96E+04 .089 432.8 .089 432.8 1.95E+04 .468 426.8 426.8 .114 .114 .470 1.94E+04 . 140 . 140 426.4 426.4 . 165 427.3 . 165 427.3 .317 429.5 429.4 .317 . 394 441.4 441.3 .394 448 7 2.08E+04 .470 .470 448.9 .505 .514 .514 2.20E+04 .546 451.3 .546 451.7 2.21E+04 3.99E+04 6.24E+04 4.39E+04 3.09E+04 2.20E+04 .622 .522 441.1 .522 .622 441.5 3.86E+04 .535 .698 .534 486.9 484.0 .698 . 554 6.24E+04 - 555 .775 634.3 .775 654.6 .576 4.50E+04 .576 758.6 .851 763.0 851 .591 3.108+04 786.4 .927 787.7 .591 .92? 2.89E+04 .603 2.88E+04 788.3 789.3 .603 1,003 1.003 2.49E+04 2.59E+04 2.46E+04 7.49E+02 .612 2.48E+04 7.59E+02 .611 1.067 751.8 1.067 751.1 .623 6.27E+01 789.5 1.156 790.3 .623 2.591+04 6.19E+01 1.156 .633 757.3 .633 1.232 758.0 2.46E+04 1.232 2.63E+04 758.6 .637 1,257 759.3 .637 2.62E+04 1.257 2.53E+04 .645 786.1 .645 786.7 2.53E+04 1.321 1.321 2.62E+04 .654 2.63£+04 .654 828.2 1.384 828.9 1.384 .664 1.460 2.66E+04 .664 856.6 1.460 857.3 2.65E+04 2.65E+04 2.52E+04 2.53E+04 1.511 860.3 .671 1.511 861.0 .671 2.68E+04 2.66E+04 1.562 835.1 .678 1,562 835.9 .678 2.67E+04 852.3 .685 1.613 853.0 .685 2.65E+04 1.613 .695 .695 2.65E+04 887.1 1.689 887.8 2.64E+04 1.689 .706 .706 908.6 2.61E+04 1.765 1.765 909.2 2.60E+04 904.5 .712 2.45E+04 .712 2.44E+04 1.816 1.816 905.1 .719 .719 2.51E+04 875.8 2.52E+04 1.867 1.867 376.3 2.47E+04 2.42E+04 2.35E+04

-1.918

1.994

2.070

2.070

875.6

884.0

.734

. 744

2.43E+04

INEL POST-CHE EXPERIMENT NO. 115

INEL POST-CHE EXPERIMENT NO. 115 POINT SERIAL NO. 3115.100 (TIME= 370.50 SEC) POINT SERIAL NO. 2115.100 (TIME= 370.50 SEC) 16.00 MPA LOOP PRESSURE(PE-3) 16.00 MPA LOOP PRESSURE(PE-3) 613.8 K 613.8 K FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-11) 1.596E+06 J/KG 1.596E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .49 MPA .49 MPA PRESSURE PRESSURE SAT TEMP 423,92 K SAT TEMP 423.92 K 22.76 KG/SEC-M**2 22.76 KG/SEC-M**2 MASS FLUX MASS FLUX .455 INLET QUALITY INLET QUALITY .455 1.596E+06 J/KG INLET ENTHALPY 1.596E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .851 M .851 M ELEVATION ELEVATION .0040 M/SEC VELOCITY .0040 M/SEC VELOCITY .561 .561 QUALITY QUALITY 0.0 W NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF TV XE XA ELEVATION DZQF IV (M) (M) (M) (K) (M) (K) 697.8 .714 .562 579.0 .672 .581 1.841 .991 1.537 -686 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS XE ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP W/M**2 W/M**2 W/M**2 H/M##2 (M) (K) (M) (K) 1.94E+04 .456 .013 425.4 , 456 .013 425.4 1.94E+04 .460 1.95E+04 .051 428.6 .460 1.95E+04 .051 428.6 .461 1.941+04 .063 426.4 .461 1.94E+04 .063 426.4 1.96E+04 .089 432.3 .464 .089 432.3 .464 1.96E+04 .114 1.95E+04 .467 .114 426.4 .467 1.95E+04 426.4 1.94E+04 . 140 426.3 .469 . 140 426.3 .469 1.94E+04 1.94E+04 .472 . 165 427.0 .472 1.94E+04 . 165 427.0 .487 1.96E+04 .317 428.7 .487 1.96E+04 .317 428.7 .495 2.03E+04 438.5 .394 438.5 .495 2.03E+04 . 394 .470 2.07E+04 444.9 .504 .470 444.9 .504 2.07E+04 2.10E+04 .512 .546 4115.7 .512 .546 445.7 2.10E+04 .520 2.06E+04 .622 435.8 435.8 .520 2.06E+04 .622 .529 461.7 2.39E+04 .698 2.39E+04 461.7 .529 .698 .542 .775 4.14E+04 480.0 .775 480.0 .542 4.14E+04 5.25E+04 .561 621.6 5.25E+04 .851 521.6 .561 .85 i .581 4.64E+04 .921 .581 4.64E+08 .927 750.9 750.9 .597 3.10E+04 765.2 3.10E+04 1.003 1.003 765.2 .597 2.67E+04 .606 2 67E+04 1.067 736.1 .606 1.067 736.1 2.66E+04 .619 2.66E-04 1.156 774.4 .619 1.156 774.4 .629 2.50E+04 .629 742.7 1,232 742.7 2.50E+04 1.232 .633 742.6 2.71E+04 1.257 742.6 .633 2.718+04 1.257 .641 2.58E+04 773.1 773.1 .641 2.58E+04 1,321 1.321 .650 2.68E+04 2.68E+04 1.384 813.3 .650 813.3 1.384 2.71E+04 841.3 .661 2.71E+04 1.460 841.3 .661 1,460 .668 2.58E+04 1.511 845.0 2.58E+04 1.511 845.0 .668 .675 819.4 .675 2.72E+04 -1.562 819.4 2.72E+04 1.562 .682 2.70E+04 1.613 837.0 .682 2.70E+04 1.613 837.0 .693 2.69E+04 .693 872.4 1.689 872.4 2.69E+04 1.689 .704 894.7 2.67E+04 .704 1.765 894.7 2.67E+04 1. 05 .711 891.3 .711 2.50E+04 891 2.50E+04 1.816 1.816 .718 2.57E+04 1.867 2.57E+04 1.867 865.7 .718 803.7 . 724 .724 2.54E+04 1.918 2.54E+04 1.918 860.3 860.3 875.6 . 734 2.47E+04 2.47E+04 1.994

2.070

. 744

884.0

2.43E+04

2.58E+04

2.53E+04

2.50E+04

1.918

1.994

2.070

849.0

865.5

874.8

.737

.747

2.50E+04

2.47E+04

POINT SERIAL NO. 3115, 120 (TIME= 408, 50 SEC) POINT SERIAL NO. 3115.110 (TIME= 389.50 SEC) FCV TEMPERATURE(TE-FCV-IT)

LHP INLET ENTHALPY
TEST SECTION:

16.19 MPA
614.4 K
1.599E+06 J/KG FOUR PRESSURE(PE-3)
FOUR TEMPERATURE(TE-FCV-TT)
LHP INLET ENTHALPY
TEST SECTION:

16.09 MPA
614.3 K
1.599E+06 J/KG ,49 MPA PRESSURE .49 MPA
SAT TEMP 423.92 K
MASS FLUX 22.73 KG/SEC-M**2
INLET QUALITY .457
INLET ENTHALPY 1.599E+06 J/KG PRESSURE QUENCH FRONT: QUENCH FRONT: | THE COLUMN | THE .927 M .0040 M/SEC .572 0.0 W ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.841 .915 674.6 .716 .573 1.841 .839 656.2 .712 .578 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) W/M**2 (M) (K) (K) W/M**2 425.1 .458 1.96E+04
428.3 .462 1.95E+04
426.3 .463 1.95E+04
431.9 .466 1.96E+04
426.2 .468 1.95E+04
426.2 .471 1.94E+04
426.9 .474 1.95E+04
436.4 .498 2.01E+04
431.9 .506 2.04E+04
441.9 .506 2.04E+04
442.0 .514 2.07E+04
432.7 .522 2.03E+04
432.7 .522 2.03E+04
432.7 .522 3.0E+04
432.7 .522 2.03E+04
452.8 .531 2.20E+04
452.8 .531 2.20E+04
452.8 .531 2.20E+04
452.8 .531 2.20E+04
452.8 .533 2.36E+04
452.8 .643 2.52E+04
4759.8 .643 2.52E+04 424.8 .458 1.96E+04 428.2 .462 1.95E+04 426.1 .463 1.95E+04 431.5 .466 1.96E+04 425.9 .468 1.95E+04 426.0 .471 1.95E+04 426.8 .474 1.95E+04 427.5 .489 1.97E+04 431.3 .497 2.00E+04 439.6 .506 2.03E+04 439.2 .514 2.04E+04 430.7 .522 2.01E+04 447.2 .530 2.12E+04 447.2 .530 2.12E+04 444.9 .539 2.18E+04 501.9 .561 4.22E+04 629.4 .582 6.22E+04 .013 .013 .051 .051 .063 .063 .089 .089 .114 .114 . 140 .140 . 165 . 165 .317 .317 . 394 . 394 .470 .470 .546 .546 .622 .622 .698 .698 .775 .775 .851 .851 .927 .927 .561 4.22E+04 .599 3.80E+04 .615 2.83E+04 .626 2.55E+04 .629 2.76E+04 .638 2.65E+04 1.003 1.003 629.4 1.067 1.06/ 694.1 1.156 1.156 740.8 1.232 1.232 712.6 1.257 :.257 709.1 .643 2.62E+04 745.7 1,321 759.8 1.321 .652 2.69E+04 1.384 798.5 1.384 783.2 2.73E+04 1.460 .658 826.1 .663 1.460 810.3 2.75E+04 .670 1.511 829.7 2.61E+04 1.511 .666 2.64E+04 813.8 .677 2.70E+04 2.70E+04 1,562 804.4 1.562 789.3 .673 2.72E+04 .684 1.613 822.3 1.613 807.6 .680 2.701+04 2.71E+04 2.69E+0h .695 857.9 2.70E+04 1.689 .691 1.689 843.2 .706 2.68E+04 1.765 881.0 1.765 .702 866.9 .713 1.816 878.1 2.52E+04 1.816 864.6 2.54E+04 . 709 .720 2.60E+04 1.867 651.6 1.867 838.9 .716 2.62E+04 2.56E+04 .727

1.918

1.994

2.070

837.1

854.9

864.8

.723

. 743

.733

1.994

2.070

825.9

844.8

855.4

.717

.728

.738

2.61E+04

2.55E+04

2.53E+04

INEL POST-CHE EXPERIMENT NO. 115

INEL POST-CHE EXPERIMENT NO. 115 POINT SERIAL NO. 3115.140 (TIME= 444.50 SEC) POINT SERIAL NO. 3115, 130 (TIME= 425.50 SEC) 16.12 MPA LOOP PRESSURE (PE-3) 15.98 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 614.0 K 614.2 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY LHP INLET ENTHALPY 1.596E+06 J/KG 1.599E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE . 49 MPA PRESSURE 48 MPA SAT TEMP 423.94 K SAT TEMP 423.83 K 23.05 KG/SEC-M**2 22.57 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY . 456 INLET QUALITY .455 INLET ENTHALPY 1.596E+06 J/KG 1.599E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION 1.070 M 1.155 M ELEVATION .0050 M/SEC .0040 M/SEC VELOCITY VELOCITY .586 .597 QUALITY QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF TV XE XA TV ELEVATION DZQF (M) (M) (K) (K) (M) (M) 1.841 .686 .772 645.1 .707 .579 626.8 .708 .589 1.841 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT LOSS ELEVATION HEAT FLUX XE HEAT FLUX HEAT LOSS TEMP XE ELEVATION W/M**2 W/M*#2 (M) (K) W/M**2 W/M*#2 (M) (K) .013 425.3 1.92E+04 .458 1.94E+04 425.0 .457 .013 .460 .051 427.8 428.0 1.95E+04 .462 1.96E+04 .051 .063 425.8 .462 1.95E+04 .463 1.95E+04 .063 426.0 .089 1.96E+04 430.9 .465 1.96E+04 .089 431.2 .464 .467 1.95E+04 . 114 425.7 .468 1.96E+04 425.8 . 114 .470 . 140 1.95E+04 425.9 .471 1.95E+04 426.0 . 140 1.95E+04 . 165 .472 426.5 .473 1.96E+04 . 165 426.6 1.96E+04 .317 426.7 427.0 .488 .489 1.96E+04 .317 1.99E+04 . 394 432.7 433.7 .496 .497 1.99E+04 . 394 .504 .505 2.01E+04 .470 436.5 2.01E+04 437.9 .470 2.02E+04 .546 .512 435.7 .513 2.01E+04 .546 437.2 2.00E+04 .622 .622 428.3 .521 1.99E+04 429.3 .520 .529 2.07E+04 .698 441.1 2.05E+04 .529 .698 443.7 2.09E+04 .775 437.7 .538 .537 2.06E+04 .775 440.6 .851 2.18E+04 .851 .546 441.5 .546 2.11E+04 446.0 2.54E+04 .927 .927 469.2 .555 459.2 .555 2.29E+04 .570 4.72E+04 1,003 439.8 2.26E+04 483.8 .564 1.003 643.6 .586 4.88E+04 1.067 541.6 .575 4.49E+04 1.067 .606 3.82E+04 1.156 634.7 1.156 716.7 .597 4.46E+04 2.63E+04 1.232 697.7 .619 678.9 .612 2.84E+04 1.232 .623 2.85E+04 1.257 1.257 692.3 669.4 .617 5.60E+04 .632 2.66E+04 1.321 718.7 732.4 .631 2.75E+04 1.321 . 541 2.72E+04 1.384 1.384 769.1 754.7 .640 2.79E+04 795.8 .652 2.76E+04 1.460 781.0 1.460 .652 2.83E+04 2.67E+04 .659 1.511 .659 1.511 798.8 783.3 2.73E+04 774.8 667 2.79E+04 1.562 1.562 759.0 .667 2.88E+04 793.9 -674 2.73E+04 1.613 779.6 .674 2.79E+04 1.613 829.5 .685 2.74E+04 1.689 .686 1.689 815.3 2.81E+04 2.72E+04 1.765 853.7 .696 1.765 840.1 .697 2.79E+04 .703 852.0 2.57E+04 1.816 2.64E+04 1.816 838.8 .704 827.0 .710 2.65E+04 1.867 2.70E+04 1.867 814.7 .711

1.918

1.994

2.070

.718

.729

.740

814.2

834.2

845.4

2.661+04

2.61E+04

2.59E+04

POINT SERIAL NO. 3115, 150 (TIME= 458, 50 SEC) LOOP PRESSURE(PE-3) 16.14 MPA FCV TEMPERATURE (TE-FCV-11) 614.6 K 1.601E+06 J/KG LHP INLET ENTHALPY TEST SECTION: PRESSURE .48 MPA 423.77 K SAT TEMP MASS FLUX 23.07 KG/SEC-M**2 INLET QUALITY . 458 INLET ENTHALPY 1.601E+06 J/KG QUENCH FRONT: 1.238 M ELEVATION VELOCITY .0070 M/SEC QUALITY .614

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

0.0 W

1.841 .603 609.3 .714 .602

NET LHP POWER TO FLUID

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX HEAT LOSS ELEVATION TEMP W/M##2 W/M**2 (M) (K) 1.95E+04 .013 425.6 . 459 427.7 .463 1.96E+04 .051 1.96E+04 .063 425.8 .464 1.96E+04 .089 430.8 .467 1.96E+04 425.6 .469 .114 1.96E+04 425.9 .472 .140 . 165 .475 1.96£+04 426.5 1.96E+04 .317 426.6 .491 1.99E+04 . 394 432.3 .499 .507 436.1 2.00E+04 470 435.2 .515 2.02E+04 .546 1.99E+04 .622 427.9 .525 .698 440.1 .531 2.04E+04 2.05E+04 .775 436.7 .539 2.09[+04 .851 439.9 .548 2.23E+04 2.15E+04 .927 456.2 .556 .565 1.003 436.9 1.067 510.1 .575 3.61E+04 1.156 596.2 .595 5.14E+04 1,232 .612 3.07E+04 653.2 1.257 7.24E+04 633.5 .619 1.321 712.7 .636 2.80E+04 2.82E+04 1.384 748.5 . 645 774.6 2.87E+04 1,460 .657 1.511 776.7 2.77E+04 .664 2.94[+04 1,562 752.1 .672 1.613 773.4 .680 2.84E+04 1.689 809.2 .691 2.85E+04 1.765 834.2 .703 2.84E+04 .710 1.816 833.1 2.68E+04 .717 1.867 809.5 2.73E+04 2.68E+04 1.918 809.2 . 725 829.7 . 735 2.641+04 1.994 .746 2.070 841.1 2.63E+04

POINT SERIAL NO. 1116.010 (TIME= 181.50 SEC) 16.03 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 613.8 K LHP INLET ENTHALPY 1.595E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.98 K 18.94 KG/SEC-M**2 MASS FLUX INLET QUALITY . 455 INLET ENTHALPY 1.595E+06 J/KG QUENCH FRONT: ELEVATION .237 M VELOCITY .0035 M/SEC .479 QUALITY

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA (M) (M) (K)

0.0 W

1.232 .995 644.7 .613 .502

NET LHP POWER TO FLUID

ELEVATION	TEMP	XE XE	HEAT FLUX W/M**2	HEAT LOSS W/M**2
(M)	(K)		W/M2	M/M2
.013	439.7	.456	1.08E+04	
.051	445.4	.458	1.26E+04	
.063	435.9	. 459	1.05E+04	
.089	448.6	.461	1.158+04	
.114	441.6	.463	1.12E+04	
. 140	432.5	.465	1.03£+04	
. 165	435.7	.467	1.648+04	
.317	745.0	.493	3.55E+04	
. 394	800.4	.508	2.57E+04	
.470	827.1	.520	2.471+04	
.546	847.9	.532	2.39E+04	
.622	855.8	.544	2.32E+04	
.698	870.9	.555	2.22E+04	
.775	879.5	.565	2.16E+04	
.851	889.3	.576	2.08E+04	
.927	891.1	.585	1.97E+04	
1. 03	864.3	.594	1.72E+04	
1.067	781.9	.600	1,27E+04	
1.156	832.0	.608	1,45E+04	2.12E+02
1,232	798.6	.615	1.30E+04	
1.257	804.0	.617	1.44E+04	
1,321	823.9	.623	1.50E+04	
1.384	886.7	.630	1.76E+04	
1.461	913.2	.638	1.79E+04	
1.511	914.4	.644	1.73E+04	
1.562	894.2	.650	1.91E+04	
1.613	911.4	.656	1.94E+04	
1.689	938.0	.665	1.841+04	
1.765	947.8	.674	1.72E+04	
1.816	935.3	.679	1.58E+04	
1.867	902.3	.684	1.53E+04	
1.918	887.9	.689	1.49E+04	
1.994	886.3	.696	1.29E+04	
2.070	860.4	,701	8.82E+03	

INEL POST-CHE EXPERIMENT NO. 116

				eres	DOLLA CER	IAL NO. 311	6 010 /	TIME= 181	50 SEC	,
POINT SERIA	AL NO. 21	16.010	(TIME= 181.50	SEC)	LOOP PRES FCV TEMPE LHP INLET TEST SECT PRES SAT MASS INLE UNLE QUENCH FR ELEV VELO QUAL NET LHP F	THE NO. 311	0.010	101	MOA	
LOOP PRESSI	URE (PE-3)		16.03 MP	A	LOOP PRES	SURE(PE-3)		16.03	MPA	
FCV TEMPERA	ATURE (TE-F	CV-11)	613.8 K		FCV TEMPE	RATURE (TE-FC	V-11)	613.8	K	
LHP INLET	ENTHALPY		1.595E+06 J/	KG	LHP INLET	ENTHALPY		1.595E+00	3/86	
TEST SECTION	ON:				TEST SECT	ION:		ho	MDA	
PRESSI	URE		.49 MF	A	PRES	SURE		1.27 08	MEA	
SAT T	EMP		423.98 K		SAI	TEMP		18 04	KE/SEC	-M##2
MASS	FLUX		18.94 KG	/SEC-M**2	MASS	NULT OHALLTY		10.94	KO/ SEC	
INLET	QUALITY		. 455		INLE	T ENTUAL DV		1 5055+06	1/KG	
INLET	ENTHALPY		1.595E+06 J/	KG	INLE	LIENTHALFY		1.3936.00	37 110	
QUENCH FROM	NI:		227.46		QUENCH FR	ONT:		237	м	
LLLVA	TION		.231 M	cen	ELLY	CLIV		0035	M/SEC	
VELOC	ITY		.0035 M/	SEC	DIST	LIV		479	112	
NET LHP PO	WER TO FLU	10	0.0 W		NET LHP F	OWER TO FLUI	D	0.0	W	
			0.0 "				CHRENENT	LOCATION	LNEODMA	TION
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATION INF	ORMATION	VAPOR TEM	PERATURE MEA	SUREMENT	XF XA	INTURMA	1104
ELEVATION	DZQF	IV	XE XA		ELEVALION	(DZQF	()	VE VU		
(M)	(M)	(K)			(17)	(11)	(0)			
1.537	1.300	726.4	.644 .494		VAPOR TEM ELE_ATION (M) 1.841	1.605	823.5	.679 .485		
WALL TEMPE	RATURE MEA	SURFMENT	LOCATION INFO	RMATION	WALL TEMP ELEVATION (M)	PERATURE MEAS	UREMENT I	LOCATION I	NEORMAT	ION
ELEVATION	TEMP	XE	HEAT FL	UX HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2	(M)	(K)		W/M	1**5	M/W**5
011	620. 7	266	1 0954		017	h30 7	1156	1.08	E+04	
.013	439.1	-420	1.000.10	6	.913	hh5 h	458	1.26	E+04	
.051	449.4	450	1.056+0	12	063	435.0	459	1.05	E+04	
.003	1118 6	161	1 15546	11	089	148 6	461	1.15	E+04	
114	440.0	16.2	1.12540		114	440.6	1163	1.12	E+04	
100	632.5	166	1.125+0	11	100	432.5	465	1.03	E+04	
166	435.7	167	1 6554	it.	165	435 7	467	1.64	E+04	
317	745 0	107	2.55E40	ili.	317	745.0	493	3.55	E+04	
304	900 h	504	2.576+0	di .	394	800.4	.508	2.57	E+04	
470	827 1	520	2 h75+6	il.	470	827.1	.520	2.47	E+04	
546	847 9	532	2 39F+0	da	546	847.9	.532	2.39	E+04	
622	855.8	544	2 32F+6	14	622	855.8	.544	2.32	E+04	
698	870 9	555	2 225+6	14	698	870.9	. 555	2.22	E+04	
775	879 5	565	2 165+6	h	775	879.5	.565	2.16	E+04	
851	889 3	576	2 08E+0	ita	851	889.3	,576	2.08	E+04	
927	891 1	585	1.975+6	da	927	891.1	. 585	1.97	E+04	
1 003	864 3	594	1 72F+6	th .	1.003	864.3	. 594	1.72	E+04	
1 067	781 9	600	1 275+0	14	1.067	781.9	.600	1.27	E+04	
1.156	832.0	.608	1.45E+0	4 2.12E+02	1.156	832.0	.608	1.45	E+04	2.12E+02
1.232	798.6	615	1.30F+0	da	1.232	798.6	.615	1.30	E+04	
1 257	804.0	617	1 445+6	14	1.257	804.0	.617	1.44	E+04	
1 321	823 9	623	1.50E+0	14	1.321	823.9	.623	1.50	E+04	
1 384	886.7	630	1 76F+0	IA .	1 384	886.7	.630	1.76	E+04	
1 660	913 2	638	1 795+6	14	1.460	913.2	.638	1.79	E+04	
1 511	914 4	644	1.735+0	14	1.511	914.9	. 644	1.73	E+04	
1 562	894 2	650	1.91E+0	14	1.562	894.2	.650	1.91	E+04	
1 613	911 4	656	1.94E+0	144	1.613	911.4	. 656	1.94	E+04	
1 689	938 0	665	1 8/4E+0	da	1.689	938.0	.665	1.84	E+04	
1 765	947.8	676	1 72FH	14	1.765	947.8	.674	1.72	E+04	
1 816	935 3	670	1 585+0	141	1.816	935.3	.679	1.58	E+G4	
1.867	902.3	684	1.535+0	ida	1.867	902.3	. 684	1.53	E+04	
1.007	887 0	680	1 405+0	di.	1 018	887.9	.689	1.49	E+04	
	001.9	.009	1.49671		1.7.0	301.3	606	1 20	EARL	
1.910	886 3	6.016	1 2515 40	We.	1 00h	HHO. C			F T1364	
1.994	886.3	.695	1.29E+0	14	ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 .1003 .1067 .1156 .1.232 .1.257 .1.321 .1.384 .1.460 .1.511 .1.562 .1.613 .1.689 .1.765 .1.816 .1.867 .1.988 .1.994 .2.070	860.4	701	8 83	F+03	

1.594E+06 J/KG

16.01 MPA

613.6 K

QUENCH FRONT: ELEVATION VELOCITY

.324 M .0023 M/SEC .487 0.0 W

HEAT FLUX

1.64E+04

1.57E+04

1.46E+04

1.45E+04

1.37E+04

1.01E+04

1.25E+04

HEAT LOSS

HET LHP POWER TO FLUID

QUALITY

ELEVATION

1.689

1.765

1.816

1.867

1.918

1.994

2.070

LOO" PRESSURE(PE-3)
FGV TEMPERATURE(TE-FGV-1T)

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

XE

INEL POST-CHE EXPERIMENT NO. 116

POINT SERIAL NO. 1116.020 (TIME= 219.50 SEC)

LHP INLET ENTHALPY 1.594E+06 J/KG

1.232 .908 608.2 .604 .510

TEMP

913.9

926.5

915.9

885.1

873.1

875.5

859.8

W/M**2 W/M##2 (M) (K) .455 9.901+03 434.5 .013 1.04E+04 9.72E+03 .051 436.6 .457 .063 431.5 .458 1.02E+04 .089 441.5 .460 1.02E+04 .462 .114 434.8 9.56E+03 . 140 428.6 .463 .165 430.2 .465 9.781+03 .317 3.15E+04 589.6 .486 2.81E+04 .394 750.0 .501 .514 2.21E+04 .470 781.8 .525 2.13E+04 .546 805.6 2.06E+04 .622 815.9 .536 2.01E+04 .698 833.3 .546 .556 1.97E+04 .775 843.3 .566 1.89E+04 .351 856.3 1.83E+04 .927 .576 860.1 1.65E+04 1.003 840.1 . 585 1.32E+04 1.067 768.8 .591 1.41E+04 .599 2.98E+02 1.156 813.7 .606 1.33E+04 1.232 783.2 1.43E+04 1,257 787.8 .608 1.44E+04 .614 1,321 806.5 .621 1.63E+04 1.384 862.6 .629 1.460 638.8 1.65E+04 1.59E+04 1,511 890.2 .635 1.67E+04 868.8 .640 1.562 .646 885.3 1.68E+04 1.613

.655

.663

.668

.678

.684

.690

INEL POST-CHF EXPERIMENT NO. 116

POINT SERIAL NO. 2116.020 (TIME= 217.50 SEC)

LOOP PRESSURE(PE-3) 16.05 MPA FCV TEMPERATURE (TE-FCV-1T) 613.7 K LHP INLET ENTHALPY 1.594E+06 J/KG TEST SECTION: .49 MPA PRESSURE SAT TEMP 423.92 K 18.09 KG/SEC-M**2 MASS FLUX INLET QUALITY .454 INLET ENTHALPY 1.594E+06 J/KG QUENCH FRONT: ELEVATION .320 M

VELOCITY .0023 M/SEC .487

NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K)

1.537 1.217 701.2 .635 .497

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M\W**5	W/M**2
.013	434.8	.455	9.89£+03	
.051	437.0	.458	1.05E+04	
.063	431.7	.459	9.75E+03	
.089	441.9	.460	1.03E+04	
. 114	435.1	.462	1.02E+04	
. 100	428.8	. 464	9.61E+03	
. 165	430.4	. 465	9.86E+03	
. 317	625.4	.487	3.271+04	
. 394	753.6	.502	2.69E+04	
.470	784.9	.515	2.221+04	
.546	808.4	.526	2.13E+04	
.622	818.6	.536	2.07E+04	
.698	835.8	.547	2.018+04	
.775	845.7	.557	1.98E+04	
.851	858.5	.567	1.90E+04	
.927	862.2	.576	1.84E+04	
1.003	841.8	. 585	1.65E+04	
1.067	769.7	.591	1.32E+04	
1.156	815.0	.600	1.41E+04	2.79E+02
1.232	784.3	.606	1.33E+04	
1.257	789.0	.609	1.42E+04	
1.321	807.7	.615	1.44E+04	
1.384	864.2	.621	1.63E+04	
1.460	890.5	.630	1.65E+04	
1.511	891.8	.635	1.60E+04	
1.562	870.4	.641	1.68E+04	
1.613	887.0	. 646	1.69E+04	
1.689	915.5	.655	1.65E+04	
1.765	927.9	.663	1.57E+04	
1.816	917.2	.668	1.46E+04	
1.867	886.2	.673	1.45E+04	
1.918	874.2	.678	1.37E+04	
1.994	876.2	.685	1.26E+04	
2.070	860.0	.690	9.96E+03	

INEL POST-CHE EXPERIMENT NO. 116

POINT SERI	AL NO. 31	16.020	(TIME= 218.5	O SEC)				TIME= 249.5	
1009 7555	URFIPE-31		16.04 M	PA	LOOP PRESS FCV TEMPER LHP INLET TEST SECTI- PRESS SAT T MASS INLET INLET QUENCH FRO ELEVA	URE(PE-3)		16.10 M	PA
ECV PER	ATURE I TE-F	CV-1T1	613.7 K		FCV TEMPER	ATURE (TE-FO	CV-11)	613.7 K	
LUP INIFT	ENTHAL PY		1.594E+06 J	/KG	LHP INLET	ENTHALPY		1.594E+06 J	/KG
TEST SECTI	ON:				TEST SECTI	ON:			
PEESS	URE		.49 M	PA	PRESS	URE		.49 M	PA
SAT T	EMP		423.91 K		SAT T	EMP		423.87 K	
MASS	FLUX		18.05 h	G/SEC-M**2	MASS	FLUX		17.84 K	G/SEC-M**2
INLE	QUALITY		, 454		INLET	QUALITY		. 454	
INLET	ENTHALPY		1.594E+06 J	/KG	INLEI	ENTHALPY		1.594E+06 J	/46
QUENCH FRO	NT:				QUENCH FRO	NI:		206 14	
ELEVA	TION		.322 M	1050	VELOC	ITUN		. 390 M	1850
VELOC	114		.0023 M	SEC	OUALL	TV		,0029 M	SEC
QUAL!	IY	LD.	.322 M .0023 M .487		QUENCH FRO ELEVA VELOC QUALI NET LHP PO	WER TO FLU	D	0.0 W	
NET LHE PU	WER TO TES	10	0.0 #		VAPOR TEMP ELEVATION (M)	COATONE ME	CHOCMENT	LOCATION	FORMAT LOW
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATION IN	FORMATION	FLEVATION	DZOE MEA	SUREMENT	LOCATION IN	FORMATION
ELEVATION	DZQF	IV	XE XA		(M)	(M)	() .	AL AM	
(M)	(M)	(K)			(m)	(111)	(6)		
			.668 .495		1.232	.836	582.5 .	598 .515	
WALL TEMPE	RATURE MEA	SUREMENT	LOCATION INF	ORMATION	WALL TEMPE EL: ATION (M)	RATURE MEAS	SUREMENT L	OCATION INF	ORMATION
FLEVATION	TEMP	XE	HEAT F	LUX HEAT LOSS	ELI ATION	TEMP	XE	HEAT F	LUX HEAT LOS
(M)	(K)		W/M**	2 W/M**2	(M)	(K)		W/M**	5 M/W**5
			0.0151	0.2	013	1121 h	115.5	0.5254	0.2
.013	434.7	. 455	9.91E+	03	051	431.4	455	9,536+	0.3
.051	436.8	, 458	1.046+	0.2	063	h28 0	158	9.000+	03
.063	431.6	.458	9.7314	03	089	h37 2	0.60	9,400.	03
.089	441.7	.460	1.0354	04	114	437.2	162	9.746+	03
.114	434.9	.462	0.5854	03	140	426 6	1163	9.000	03
. 140	428.7	. 404	0 825+	03	165	427.7	465	9.326+	03
. 165	607 0	467	3 216+	04	. 317	442.6	.476	1.26E+	04
.394	751 8	502	2.75F+	04	. 394	576.8	. 491	4.72E+	04
.470	783 3	514	2.22E+	04	.470	736.3	. 509	2.25E+	04
.546	807.0	.525	2. 60	74	.546	765.2	.520	2.04E+	04
.622	817.3	.536	6,075+	04	.622	778.1	.531	1.94E+	04
.698	834.5	. 546	2.01E+	04	.698	797.9	.541	1.38E+	04
.775	844.5	.557	1.97E+	04	.775	809.2	.550	1.85E+	04
.851	857.4	.566	1.89E+	04	.851	824.3	.560	1.82E+	04
.927	861.2	.576	1.84E+	04	.927	830.1	. 569	1.77E+	04
1.003	840.9	.585	1.65E+	04	1.003	815.3	.578	1.62E+	04
1.067	769.3	. 591	1.33E+	04	1.067	753.8	. 584	1.34E+	04 1.22E+02
1.156	814.4	.599	1.41E+	04 2.89E+02	1.190	794.7	.592	1.43E+	04 3.44E+02
1.232	783.7	. 606	1.33E+	04	1 257	760.0	.600	1.3/6+	04
1.257	788.4	.609	1.42E+	04	1 321	788 6	.002	1.446+	04
1.321	807.1	.615	1.4467	04	1 384	830 3	615	1.431.4	04
1.384	80:	.021	1.6564	04	1 460	865 3	623	1.500+	04
1.460	889.0	. 630	1.6054	04	1 511	866.6	628	1.536+	04
1.511	860 6	.035	1.5961	04	1.562	844 5	634	1 595+	04
1.562	886 1	646	1.685+	04	1,613	861.0	639	1.616+	04
1.689	914 7	655	1.646+	04	1,689	891.1	.647	1.58E+	04
1.765	927.2	.663	1.576+	04	1.765	906.0	.655	1.52E+	04
	916.5	.668	1.46E+	04	1.816	896.8	.660	1.43E+	04
1.816	885 7	.673	1.45E+	04	1.867	867.8	.665	1,426+	04
1.816		2 20 2 20		000		25.0	6.30		0.4
1.816 1.867 1.918	873.6	.678	1.37E+	04	1.918	858.2	.670	1.3/6+	04
1.816 1.867 1.918 1.994	873.6 875.9	.678	1.37E+ 1.26E+	LUX HEAT LOSS 2 W/M**2 03	1.918	863.8	.677	1.37E+	04

842.6

.689

3.76E+04

```
POINT SERIAL NO. 2116.030 (TIME= 247.50 SEC)
                                                                   POINT SERIAL NO. 3116.030 (TIME= 248.50 SEC)
LOOP PRESSURE(PE-3)
                                16.16 MPA
                                                                   LOOP PRESSURE(PE-3)
                                                                                                   16.13 MPA
                            613.6 K
                                                                                                 613.7 K
FCV TEMPERATURE(TE-FCV-1T)
                                                                   FCV TEMPERATURE (TE-FCV-1T)
                                                                   LHP INLET ENTHALPY 1.594E+06 J/KG
LHP INLET ENTHALPY 1.593E+96 J/KG
TEST SECTION:
                                                                   TEST SECTION:
    PRESSURE
                                                                                                      .49 MPA
                                  .49 MPA
                                                                        PRESSURE
                                                                                                423.88 K
    SAT TEMP
                             423.87 K
                                                                        SAT TEMP
                            17.88 KG/SEC-M**2
                                                                                                17.86 KG/SEC-M**2
.454
    MASS FLUX
                                                                        MASS FLUX
    INLET QUALITY
                                                                        INLET QUALITY
    INLET ENTHALPY
                         1.593E+06 J/KG
                                                                        INLET ENTHALPY
                                                                                            1.594E+06 J/KG
QUENCH FRONT:
                                                                   QUENCH FRONT:
    ELEVATION
                                 391 M
                                                                        ELEVATION
                                                                                                      .393 M
                                                                                                 .0025 M/SEC
    VELOCITY
                                .0025 M/SEC
                                                                        VELOCITY
                               .491
                                                                                                   .491
    QUALITY
                                                                        QUALITY
NET LHP POWER TO FLUID
                                 0.0 W
                                                                   NET LHP POWER TO FLUID
                                                                                                      0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                  IV
                           XE XA
                                                                   ELEVATION DZQF IV
                                                                                              XE XA
 (M)
            (M)
                                                                     (M)
                                                                               (M)
                                                                                         (K)
1.537
           1.146 676.5 .628 .501
                                                                    1.841
                                                                               1.448 751.9 .660 .497
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                   WALL TEMPERATURE MEASUREMENT LOGATION INFORMATION
                   XE HEAT FLUX
ELEVATION
            TEMP
                                            HEAT LOSS
                                                                                TEMP XE
                                                                                                    HEAT FLUX
                                                                                                                  HEAT LOSS
                                                                   ELEVATION
 (M)
             (K)
                                 W/M##2
                                                                                                                   W/M##2
                                               W/M##2
                                                                                                      W/M##2
                                                                    (M)
                                                                                 (K)
 .013
             431.6
                       .455
                                 9.63E+03
                                                                                                     9.60E+03
                                                                     .013
                                                                                 431.5
                                                                                           . 455
                       .457
 .051
             432.5
                                 9.62E+03
                                                                                                     9.62E+03
                                                                     .051
                                                                                 432.4
                                                                                           .457
 .063
             429.0
                       .458
                                9.47E+93
                                                                                                     9.39E+03
                                                                     .063
                                                                                 428.9
                                                                                           .458
 .089
             437.4
                       .460
                                9.72E+03
                                                                     .089
                                                                                                     9.73E+03
                                                                                 437.3
                                                                                           .460
 . 114
                                9.82E+03
             430.8
                       .461
                                                                                                     9.65E+03
                                                                     . 114
                                                                                 430.8
                                                                                           .461
 . 140
             126.7
                       .463
                                9.26E+03
                                                                                                     9.27E+03
                                                                     -140
                                                                                 426.6
                                                                                           .463
 . 165
             427.8
                       . 464
                                9.22E+03
                                                                                                     9.25E+03
                                                                     . 165
                                                                                 427.8
                                                                                           . 465
 .317
             443.6
                       .476
                                 1.30E+04
                                                                                                     1.28£+04
                                                                     .317
                                                                                 443.1
                                                                                           .476
 .394
             635.0
                               4.77E+04
                       .491
                                                                     .394
                                                                                 603.4
                                                                                           .491
                                                                                                     4.75E+04
 .470
             739.5
                       .509
                                2.22E+04
                                                                                                     2.24E+04
                                                                     .470
                                                                                 737.9
                                                                                            .509
 .546
             767.8
                       .520
                               2.04E+04
                                                                                                     2.04E+04
                                                                     .546
                                                                                 766.5
                                                                                            .520
 .622
             780.4
                       .531
                               1.95E+04
                                                                                 779.2
                                                                                            .531
                                                                                                    1.94E+04
                                                                     .622
 .698
             800.1
                       .540
                              1.89£+04
                                                                                                    1.88E+04
                                                                     .698
                                                                                 739.0
                                                                                            . 540
                              1.86E+04
1.82E+04
1.78E+04
 .775
                       .550
             811.3
                                                                     .775
                                                                                 810.3
                                                                                            .550
                                                                                                    1.86E+04
                       .560
 .851
             826.3
                                                                                                    1.82E+04
                                                                     .851
                                                                                 825.3
                                                                                           . 559
  .927
             832.0
                        .569
                                                                                                   1.77E+04
                                                                                 831.1
                                                                                            .569
                                                                     .927
                                                                                                 1.62E+04
 1.003
             816.9
                        .578
                               1.63E+04
                                                                    1.003
                                                                                 816.1
                                                                                           .577
 1.067
             754.9
                        .584
                                 1.33E+04
                                              2.19E+02
                                                                     1.067
                                                                                 754.3
                                                                                            .584
                                                                                                                   1.60E+02
 1.156
             796.0
                       .592
                                 1.41E+04
                                              2.55E+02
                                                                                                     1.42E+04
                                                                    1.156
                                                                                 795.4
                                                                                            .592
                                                                                                                   3.51E+02
 1.232
             767.2
                       .599
                                 1.37E+04
                                                                                                     1.37E+04
                                                                     1.232
                                                                                 766.6
                                                                                            599
 1.257
             770.8
                       .602
                                 1.45E+04
                                                                                                     1.45E+04
                                                                     1.257
                                                                                 770.1
                                                                                            .6.02
 1.321
             789.7
                       .608
                                 1.43E+04
                                                                    1.321
                                                                                 789.1
                                                                                           .608
                                                                                                     1.43E+04
 1.384
             840.8
                       .614
                                 1.60E+04
                                                                     1.384
                                                                                 840.1
                                                                                                     1.59E+04
                                                                                           .614
 1.460
             866.8
                       .623
                                 1.60E+04
                                                                                                     1.59E+04
                                                                    1,460
                                                                                 866.0
                                                                                           .623
 1.511
             868.1
                       .628
                                 1.54E+04
                                                                    1.511
                                                                                 867.4
                                                                                           .628
                                                                                                     1.53F+04
 1.562
             846.0
                       .633
                                 1.59E+04
                                                                    1.562
                                                                                 845.3
                                                                                           .633
                                                                                                     1.58E+04
 1.613
             862.5
                       .639
                                 1.60E+04
                                                                                                     1.60E+04
                                                                    1.613
                                                                                 861.8
                                                                                           .639
 1.689
             892.5
                       .647
                                 1.57E+04
                                                                    1.689
                                                                                 871.8
                                                                                           .647
                                                                                                     1.576+04
 1.765
             907.3
                       .655
                                 1.52E+04
                                                                                                     1.51E+04
                                                                    1.765
                                                                                 906.7
                                                                                           .655
 1.816
             898.0
                       .660
                                1.42E+04
                                                                                 897.4
                                                                                                     1.42E+04
                                                                    1.816
                                                                                           .660
 1.867
             868.9
                       .665
                                1.43E+04
                                                                    1.867
                                                                                 868.3
                                                                                           .665
                                                                                                     1.42E+04
                       .670
 1.918
             859.1
                                1.35E+04
                                                                     1,918
                                                                                                     1.35E+0#
                                                                                 858.7
                                                                                           .669
 1.994
             864.6
                       .676
                                1.28E+04
                                                                    1.994
                                                                                                     1.29E+04
                                                                                 864.2
                                                                                           .676
```

2.070

839.2

.690

4.08E+04

.668

.698

1.37E+04

1.30E+04

1.02E+05

848.7

856.0

624.2

1.38E+04

1.30E+04

9.81E+04

1.918

1.994

2.070

847.7

855.2

596.5

.660

.667

.696

POINT SERIAL NO. 1116.040 (TIME= 270.50 SEC) POINT SERIAL NO. 2116.040 (TIME= 268.50 SEC) LOOP PRESSURE(PE-3) 16.02 MPA LOOP PRESSURE(PE-3) 16.01 MPA FCV TEMPERATURE (TE-FCV-1T) 613.8 K FCV TEMPERATURE (TE-FCV-1T) 613.9 K LHP INLET ENTHALPY 1.596E+06 J/KG LHP INLET ENTHALPY 1.596E+06 J/KG TEST SECTION: TEST SECTION: . 48 MPA PRESSURE .48 MPA PRESSURE 423.77 K SAT TEMP 423.81 K SAT TEMP 17.76 KG/SEC-M**2 MASS FLUX 17.79 KG/SEC-M**2 MASS FLUX INLET QUALITY . 455 INLET QUALITY .455 1.596E+06 J/KG INLET ENTHALPY 1.596E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION .449 M . 444 M VELOCITY .0025 M/SEC .0025 M/SEC VELOCITY .494 .495 QUALITY QUALITY NET LHP POWER TO FLUID NET LIP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XA ELEVATION DZQF IV XE XA XE (M) (K) (M) (M) (M) (K) 1.232 . 783 570.3 661.4 .620 .501 .588 .512 1.537 1.093 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX XE HEAT LOSS ELEVATION TEMP XE W/M##2 W/M*#2 W/M##2 (M) (K) W/M=#2 (M) (K) .013 429.8 .456 9.54E+03 . 456 9.51E+03 .013 430.0 .459 .051 430.7 .458 9.53E+03 .051 9.53E+03 430.9 9.39E+03 .063 427.7 .459 9.38E+03 .063 427.7 .459 9.70E+03 .089 435.2 .461 9.69E+03 .089 435.3 .461 . 114 428.8 .462 9.60E+03 . 114 9.58E+03 429.0 .463 .464 9.32E+03 . 140 425.7 9.29E+03 .464 . 140 425.7 . 165 426.8 9.28E+03 9.34E+03 .466 . 165 426.9 .466 1.09E+04 .317 435.5 .476 1.08E+04 .317 436.0 .476 462.9 . 394 . 484 2.03E+04 .394 2.34E+04 464.6 .485 .470 676.0 .498 3.34E+04 3.25E+04 .470 691.6 .500 2.08E+04 546 736.7 .512 2.09E+04 .513 .546 739.5 .522 .622 752.9 1.93E+04 .524 1.92E+04 .622 755.3 .698 .532 774.8 1.85E+04 .698 777.0 .533 1.84E+04 1.81E+04 .775 787.0 .541 1.81E+04 .543 .775 789.1 .851 803.4 .551 1.77E+04 .552 1.77E+04 .851 805.3 .560 .927 810.4 1.73E+04 .561 1.73E+04 .927 812.2 .570 1,003 798.5 .568 1.62E+04 1.62E+04 1.003 800.1 1.067 742.9 .575 1.32E+04 4.35E+02 .576 1.33E+04 3.41E+02 1.067 744.0 781.6 1.156 .583 1.39E+04 1.40E+04 3.55E+02 3.04E+02 1.156 782.8 .584 .590 1.232 753.7 1.35E+04 1.35E+04 .592 1.232 754.9 1.257 .592 756.8 1.45E+04 758.0 .594 1.43E+04 1.257 1.321 776.4 .599 1.41E+04 1.321 777.5 .600 1.41E+04 1.384 824.2 .605 1.55E+04 1.384 825.6 .606 1.54E+04 849.6 .613 1.460 1.57E+04 .615 1.57E+04 1,460 851.1 1.511 851.1 .618 1.52E+04 .620 1.51E+04 1.511 852.5 1.562 828.8 .624 1.60E+04 .625 1.57E+04 830.3 1,562 1.613 .631 845.1 .629 1.60E+04 1.613 846.6 1.58E+04 1.689 1.58E+04 876.0 .637 1.689 877.4 .639 1.56E+04 1.765 892.3 .645 1.53E+04 1.51E+04 1.765 .647 893.6 .651 1.816 883.7 1.44E+04 1.42E+04 1.816 885.0 .652 .657 1.867 856.1 .655 1.44E+04 1.867 857.2 1.42E+04

1.918

1.994

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

852.5

830.3

846.6

877.4

893.6

885.0

857.2

848.7

856.0

624.2

.620

.625

.631

.639

.647

.652

.657

.661

.668

.698

1.57E+04

1.58E+04

1.56E+04

1.51E+04

1.42E+04

1.42E+04

1.37E+04

1.30E+04

1.02E+05

POINT SERIAL NO. 3116.040 (TIME= 268.50 SEC) POINT SERIAL NO. 1116.050 (TIME= 296.50 SEC) FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

16.01 MPA
613.9 K
1.596E+06 J/KG FCV TEMPERATURE(TE-FCV-IT)

LHP INLET ENTHALPY
TEST SECTION:

16.15 MPA
613.3 K
1.590E+06 J/KG .48 MPA PRESSURE PRESSURE .48 MPA
SAT TEMP 423.75 K
MASS FLUX 17.93 KG/SEC-M**2
INLET QUALITY .453
INLET ENTHALPY 1.590E*06 J/KG PRESSURE .48 MPA PRESSURE .48 MPA
SAT TEMP 423.77 K

MASS FLUX 17.76 KG/SEC-M**2
INLET QUALITY .455
INLET ENTHALPY 1.596E+06 J/KG MASS FLUX QUENCH FRONT: QUENCII FRONT: ELEVATION , 4444 M ELEVATION .516 M .0025 M/SEC VELOCITY .0029 M/SEC VELOCITY NET LHP POWER TO FLUID 0.0 W .497 QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.398 723.2 .652 .502 1.232 .716 547.1 .581 .517 1.841 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M**; W/M##2 (M) (K) W/M**2 (M) (K) W/M##2 . 456 9.51E+03 . 459 9.53E+03 . 459 9.39E+03 . 461 9.70E+03 428.6 .453 9.39E+03 429.5 .456 9.4.6+03 426.8 .457 9.35E+03 433.4 .458 9.50(+03 .013 430.0 .013 .051 430.9 .051 .063 427.7 .063 .461 .089 .089 435.3 .458 9.501+03 .463 . 114 429.0 9.58E+03 . 114 427.5 .460 9.48E+03 9.32E+03 . 140 .464 . 140 .461 9.27E+03 425.7 425.1 9.341+03 - 165 .466 426.1 . 165 426.9 .463 9.278+03 1.09E+04 2.34E+04 .473 1.00E+04 .479 1.16E+04 .476 436.0 . 317 431.4 .317 . 394 . 394 .485 464.6 450.2 3.25E+04 2.08E+04 1.92E+04 .500 .488 .470 691.6 .470 488.2 2.35E+04 .546 739.5 .513 655.5 .546 .524 721.8 755.3 .622 .622 1.84E+04 .533 777.0 .698 747.6 .698 1.84E+04 1.81E+04 1.77E+04 1.73E+04 1.62E+04 1.33E+04 1.40E+04 1.35E+04 .775 .775 .543 789.1 761.5 .552 .851 779.4 .851 805.3 .561 .927 812.2 .927 787.7 .570 1.003 800.1 1.003 778.5 3.41E+02 3.55E+02 .576 1.067 744.0 1.067 729.3 3.80E+02 1.156 1,156 782.8 . 584 765.5 2.97E+02 754.9 .592 1.232 1.232 738.9 1.257 1.43E+04 1.257 758.0 .594 741.4 .600 1.41E+04 1.321 777.5 1.321 762.6 .606 1.54E+04 1.384 825.6 1.384 806.8 .606 1.54E+04 .611 1.49E+04 .615 1.57E+04 1.460 851.1 1.51E+04 1.460 831.7

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

832.9

810.4

826.7

858.5

875.9

868.2

841.8

834.8

792.2

515.0

1.54E+04

1.55E+04

1.53E+04

1.51E+04

1.41E+04

1.39E+04

5.85E+04

1.42E+04

.691 2.27E+04

.616

.629

.637

.642

.647

.652

.670

.691

513.2

2.070

2.19E+04

INEL POST-CHE EXPERIMENT NO. 116 POINT SERIAL NO. 2116.050 (TIME= 297.50 SEC) POINT SERIAL NO. 3116.050 (TIME= 297.50 SEC) LOOP PRESSURE(PE-3) 16.17 MPA LOOP PRESSURE(PE-3) 16.17 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-11) 613.3 K 613.3 K LHP INLET ENTHALPY 1.590E+06 J/KG 1.590E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE . 48 MPA .48 MPA PRESSURE 423.73 K SAT TEMP 423.73 K SAT TEMP 17.92 KG/SEC-M**2 17.92 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .453 INLET QUALITY . 453 INLET ENTHALPY 1.590E+06 J/KG 1.590E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .518 M .518 M ELEVATION .0029 M/SEC VELOCITY .0029 M/SEC VELOCITY .497 QUALITY .497 QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION XE XA DZQF TV XE IV XA ELEVATION DZQF (M) (M) (K) (K) (M) (M) 1.841 1.323 1.537 1.018 639.3 .611 .502 715.7 .642 .497 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M##2 W/M##2 (M) (K) W/M##2 M/M##5 (K) (M) .013 428.6 .013 9.41E+03 .453 9.41E+03 428.6 .453 9.42E+03 .051 429.5 .456 9.42E+03 .051 429.5 .456 9.36E+03 .063 .457 426.7 .457 9.36E+03 .063 426.7 .089 .458 9.54E+03 .089 433.4 .458 9.54E+03 433.4 .114 9.47E+03 . 114 427.4 427.4 .460 .460 9.47E+03 . 140 9.28E+03 425.1 425.1 .462 .462 9.28E+03 . 140 .463 9.28E+03 . 165 426.1 .463 9.28E+03 426.1 . 165 .317 9.99£+03 .317 431.3 .473 431.3 .473 9.99E+03 . 394 1.16E+04 . 394 149.9 .479 449.9 .479 1.16E+04 .488 2.30E+04 . 470 483.8 .488 2.30E+04 .470 483.8 649.5 .503 3.50E+04 .546 649.5 .503 3.50E+04 .546 .622 720.5 .517 2.01E+04 .622 720.5 .517 2.01E+04 .527 1.82E+04 .698 746.5 .527 1.82E+04 .698 746.5 1.76E+04 .775 760.6 .536 .775 760.6 .536 1.76E+04 1.71E+04 .851 778.5 .545 778.5 .545 1.71E+04 .851 .927 786.9 .553 1.67E+04 .927 786.9 .553 1.67E+04 1.59E+04 1.003 777.7 .562 1.003 777.7 .562 1.59E+04 1.32E+04 4.04E+02 1.067 728.8 .568 1.067 728.8 .568 1.32E+04 4.04E+02 .576 3.20E+02 764.9 1.40E+04 1, 156 1.156 764.9 .576 1.40E+04 3.20E+02 .583 1.36E+04 1,232 738.3 1,232 738.3 .583 1.36E+04 .586 1.43E+04 1.257 .586 1.257 740.8 740.8 1.43E+04 .592 1.38E+04 1.321 762.1 1.321 762.1 .592 1.38E+04 .598 1.51E+04 1.384 1.384 806.1 806.1 .598 1.51E+04 .606 1.54E+04 831.0 1.460 1.360 831.0 .606 1.54E+04 .611 1.49E+04 1.511 832.3 1.511 832.3 1.49E+04 .611 1.54E+04 1.562 809.7 .616 1.562 809.7 1.54E+04 .616 .621 1.55E+04 826.1 1.613 1.557+04 1.613 826.1 .621 .629 857.9 1.53E+04 1.689 1.53E+04 1.689 857.9 .629 1.50E+04 1.765 875.3 .637 1.765 875.3 .637 1.50E+04 1.41E+04 .642 1.816 867.7 1.816 867.7 .642 1.41E+04 .647 1.42E+04 1.867 841.3 1.42E+04 1.867 841.3 .647 .651 1.39E+04 1.918 834.3 1.918 834.3 1.39E+04 . 651 1.994 .670 5.98E+04 1.994 .670 5.98E+04 786.2 786.2

2.070

513.2

.691

2.19E+04

494.9

.710

1.72E+04

POINT SERIAL NO. 2116.060 (TIME= 311.50 SEC) POINT SERIAL NO. 3116.060 (TIME= 310.50 SEC) LOOP PRESSURE(PE-3) 15.98 MPA FCV TEMPERATURE(TE-FCV-1T) 613.3 K LOOP PRESSURE(PE-3) 15.98 MPA FCV TEMPERATURE(TE-FCV-1T) 613.3 K LHP INLET ENTHALPY 1.592E+06 J/KG LHP INLET ENTHALPY 1.592E+06 J/KG TEST SECTION: TEST SECTION: .49 MPA 423.86 K 17.61 KG/SEC-M**2 .453 .49 MPA PRESSURE PRESSURE .49 MPA 423.89 K 17.59 KG/SEC-M**2 .453 1.592E+06 J/KG MASS FLUX SAT TEMP SAT TEMP MASS FLUX INLET QUALITY INLET QUALITY INLET ENTHALPY 1.592E+06 J/KG INLET QUALITY QUENCH FRONT: QUENCH FRONT: FLEVATION 559 M ELEVATION .556 M .0029 M/SEC .0029 M/SEC VELOCITY VELOCITY .501 QUALITY .502 QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.537 .978 621.1 .615 .513 1.841 1.286 706.6 .646 .504 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION M/M##5 W/M##2 (M) (K) W/M##2 W/M++2 (K) (M) , 454 .013 428.1 . 454 9.33E+03 9.32E+03 .013 428.2 .051 429.0 9.39E+03 .456 9.38E+03 .051 429.0 . 456 .063 9.37E+03 .457 9.37[+03 .457 426.3 .063 426.3 .459 .089 .089 9.50E+03 432.7 .459 9.46E+03 432.7 .114 426.8 .461 9.47E+03 9.44E+03 . 114 426.8 .460 9.27E+03 . 140 9.27E+03 . 140 424.B .462 424.8 .462 . 165 425.8 .464 9.281+03 9.28E+03 . 165 425.8 .464 9.81E+03 .473 429.8 9.821+03 .317 .474 .317 429.9 1.11E+04 1.63E+04 3.42E+04 . 394 445.8 .479 1.10E+04 . 394 446.1 .479 ,470 458.5 .486 1.58E+04 459.3 .486 .470 .546 527.6 3.42E+04 .499 542.0 .499 .546 2.85E+04 1.83E+04 .622 697.0 .515 699.9 .515 2.78E+04 .622 .527 .698 731.7 1.83E+04 1.74E+04 .528 732.8 . 698 1.74E+04 .537 .775 747.2 .537 .775 748.1 .851 1.69E+04 1.69E+04 766.0 .546 .851 166.9 .546 1.65E+04 1.57E+04 1.65E+04 .927 775.1 .555 775.9 .554 .927 1.003 .563 767.2 .563 1.57E+04 1.003 768.0 1.31E+04 1.067 721.5 4.93E+02 .569 .569 1.31E+04 4.85E+02 1.067 722.0 1.156 756.5 .577 1.37E+04 .577 1.38E+04 3.69E+02 3.68E+02 1.156 757.1 .585 1.232 730.1 .585 1.37E+04 1.37E+04 1.232 730.7 1,257 1.42E+04 732.7 .587 1.42E+04 1.257 733.3 .587 .593 1.321 754.9 .593 1 37E+04 755.4 1.37F+04 1.321 .599 .599 1.384 797.0 1.50E+04 1.505+04 1.384 797.7 1.460 .607 821.6 .607 1.51E+04 1.460 822.3 1.52E+04 1.511 .612 822.8 1.46E+04 1.46E+04 1.511 823.5 .612 1.562 800.3 1.52E+04 1.52E+04 .618 800.9 1.562 .618 1.613 816.6 .623 1.53E+04 .623 1.53E+04 1,613 817.3 1.689 848.8 .631 1.51E+04 1.689 849.5 .631 1.51E+04 1.765 866.9 1.48E+04 .639 867.5 1.48E+04 1.765 .639 .644 1.816 859.6 1.39E+04 860.2 1.39E+04 1.816 . 644 1.867 834.4 833.8 .648 1.41E+04 1.867 .648 1.40E+04 1.918 822.1 .659 4.55E+04 .656 1.918 825.2 2.99E+04 691.5 .681 1.994 6.69E+04 6.67E+04 .688 1.994 703.9

2.070

496.0

.703

1.74E+04

INEL POST-CHE EXPERIMENT NO. 116 INEL POST-CHE EXPERIMENT NO. 116 POINT SERIAL NO. 3116.070 (TIME= 331.50 SEC) POINT SERIAL NO. 2116.070 (TIME= 331.50 SEC) 16.15 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 16.15 MPA 613.8 K 613.8 K FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 1.595E+06 J/KG LHP INLET ENTHALPY 1.595E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .48 MPA PRESSURE PRESSURE .48 MPA 423.80 K SAT TEMP 423.80 K SAT TEMP 17.84 KG/SEC-M##2 MASS FLUX 17.84 KG/SEC-M##2 MASS FLUX INLET QUALITY .455 INLET QUALITY .455 1.595E+06 J/KG INLET ENTHALPY 1.595E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .619 M ELEVATION .619 M FLEVATION .0031 M/SEC .0031 M/SEC VELOCITY VELOCITY .508 QUALITY QUALITY .508 0.0 W NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV XE XA ELEVATION DZQF ELEVATION DZQF TV XE XA (M) (K) (M) (K) (M) (M) .644 .507 694.9 606.3 .613 .518 1.841 1,222 1.537 .918 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

HALL TEMPER	TEMP	XE XE	HEAT FLUX	HEAT LOSS
		V.E.	W/M##2	W/M**2
(M)	(K)		M/MZ	M/MC
.013	427.6	. 455	9.35 8 + 03	
.051	428.4	.458	9.28E+03	
.063	425.8	.459	9.26E+03	
.089	431.9	.460	9.36E+03	
.114	426.1	.462	9.36E+03	
.140	424.5	.463	9.23E+03	
. 165	425.5	.465	9.25£+03	
.317	428.3	.475	9.57E+03	
. 394	441.6	.480	1.05E+04	
.470	448.2	.486	1.15E+04	
.546	466.0	.494	2.08E+04	
.622	595.0	.509	3.65E+04	
.698	709.5	.525	2.71E+04	
.775	728.3	.537	1.75E+04	
.851	748.6	.545	1.67E+04	
.927	758.9	.554	1.62E+04	
1.003	752.7	.562	1.55E+04	
1.067	711.1	.568	1.31E+04	5.08E+02
1.156	744.8	.576	1.37E+04	2.23E+02
1.232	718.0	.583	1.39E+04	
1,257	720.9	.586	1.44E+04	
1.321	744.5	.592	1.38E+04	
1.384	784.3	.598	1.49E+04	
1.460	808.5	.606	1.52E+04	
1.511	809.7	.611	1.46E+04	
1.562	787.1	.616	1.51E+04	
1.613	803.4	.621	1.52E+04	
1.689	836.1	.629	1.51E+04	
1.765	855.0	.637	1.47E+04	
1.816	848.2	.642	1.39E+04	
1.867	821.7	.648	2.49E+04	
1.918	681.5	.667	8.18E+04	
1.994	568.3	.699	4.56E+04	
2.070	477.6	.715	1.44E+04	

ELEVATION	TEMP	XE	HEAT FLUX	HEAT 1055
(M)	(K)		W/M**2	W/M**2
013	427.6	. 455	9.35E+03	
.051	428.4	.458	9.28E+03	
.063	425.8	.459	9.26E+03	
.089	431.9	.460	9.36E+03	
. 114	426.1	,462	9.36E+03	
.140	424.5	.463	9.23E+03	
. 165	425.5	465	9.25E+03	
.317	428.3	. 475	9.57E+03	
.394	441.6	.480	1.05E+04	
.470	448.2	.486	1.15E+04	
.546	466.0	.494	2.08E+04	
.622	595.0	.509	3.65E+04	
.698	709.5	.525	2.71E+04	
.775	728.3	.537	1.75E+04	
.851	748.6	.545	1.67E+04	
.927	758.9	.554	1.62E+04	
1,003	752.7	.562	1.55E+04	
1.067	711.1	.568	1.31E+04	5.08E+02
1.156	744.8	.576	1.37E+04	2.23E+02
1.232	718.0	.583	1.39E+04	
1.257	720.9	. 586	1.44E+04	
1.321	744.5	.592	1.38E+04	
1.384	784.3	.598	1.49E+04	
1.460	808.5	.606	1.52E+04	
1.511	809.7	.611	1.46E+04	
1.562	787.1	.616	1.51E+04	
1.613	803.4	.621	1.52E+04	
1.689	836.1	.629	1.51E+04	
1.765	855.0	.637	1.47E+04	
1.816	848.2	.642	1.39E+04	
1.867	821.7	.648	2.49E+04	
1.918	681.5	.667	8.18E+04	
1.994	568.3	.699	4.56E+04	
2.070	477.6	.715	1.44E+04	

1.27E+04

465.2

2.070

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POINT SERIAL NO. 2116.080 (TIME= 352.50 SEC)
                                                                          POINT SERIAL NO. 3116.080 (TIME= 353.50 SEC)
FCV TEMPERATURE(TE-FCV-TT)

LHP INLET ENTHALPY
TEST SECTION:

16.94 MPA
613.4 k
1.592E+06 J/KG
                                                                          TCV TEMPERATURE(TE-FCV-1T)
LHP INLET ENTHALPY
TEST SECTION:

PRESSURE (PE-3)
16.03 MPA
613.2 K
1.590E+06 J/KG
    SECTION:
PRESSURE
SAT TEMP
MASS FLUX
17.64 KG/SEC-M**2
INLET QUALITY
INLET ENTHALPY
1.592E+06 J/KG
                                                                               PRESSURE
                                                                                                                .48 MPA
                                                                              PRESSURE .48 MPA
SAT TEMP 423.81 K
MASS FLUX 17.61 KG/SEC-M**2
INLET QUALITY .453
INLET ENTHALPY 1.590E+06 J/KG
QUENCH FRONT:
                                                                          QUENCH FRONT:
                           .685 M
.0031 M/SEC
     ELEVATION
                                                                               ELEVATION
                                                                                                               .688 M
                                                                                                          .688 M
.0031 M/SEC
     VELOCITY
                                                                               VELOCITY
QUALITY .514
NET LHP POWER TO FLUID 0.0 W
                                                                          NET LIP POWER TO FLUID 0.0 W
                                                                               QUALITY
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                          VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                          ELEVATION DZQF TV
                                                                                                         XE XA
 (M)
              (M)
                      (K)
                                                                           (M)
                                                                                        (M)
                                                                                                 (K)
 1.537
             .852 595.0 .615 .525
                                                                           1.841
                                                                                     1.154 679.3 .648 .516
                                                                          WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
             TEMP XE HEAT FLUX HEAT LOSS
                                                                          ELEVATION TEMP XE HEAT FLUX HEAT LOSS
ELEVATION
                                  W/M##2
                                                   W/M##2
  (M)
               (K)
                                                                         (M)
                                                                                         (K)
                                                                                                               W/M##2
                                                                                                                              W/M##2
                       . 454
                                9.36E+03
9.34E+03
              427.1
                                                                                                .453 9.40E+03
.456 9.34E+03
  .013
                                                                            .013
                                                                                         427.0
                        . 456
                                                                           .051
  .051
               427.9
                                                                                         428.0
                         .457
                                    9.26E+03
                                                                                                 .457
               425.5
                                                                                         425.5
  .063
                                                                            .063
                                                                                                              9.30E+03
  .089
                         .459
               431.2
                                    9.43E+03
                                                                                                   . 458
                                                                            .089
                                                                                         431.2
                                                                                                              9.44E+03
  .114
                         .460
                                 9.30E+03
                                                                            .114
               425.6
                                                                                         425.6
                                                                                                    .460
                                                                                                              9.32E+03
                                                                            . 140
                         . 462
                                  9.25E+03
  . 140
               424.3
                                                                                         424.3
                                                                                                               9.23E+03
                                                                                                    .461
                                  9.24E+03
                                                                            . 165
  . 165
               425.3
                         .464
                                                                                         425.3
                                                                                                    . 463
                                                                                                               9.23E+03
                                  9.50E+03
                         .473
                                                                                                    .473
               427.2
  .317
                                                                            . 317
                                                                                         427.1
                                                                                                              9.53[+03
                                 1.02E+04
1.02E+04
1.23E+04
2.38E+04
                         .479
               438.2
                                                                            . 394
                                                                                                   .478
                                                                                                          1.03E+04
  . 394
                                                                                         438.0
                          .484
                                                                            .470
  .470
               443.4
                                                                                         443.0
                                                                                                    .483 1.01[+04
                          .490
                                                                           .546
                                                                                         449.2
  .546
               450.1
                                                                                                    .489
                                                                                                              1.20E+04
  .622
               458.6
                          .499
                                                                            .622
                                                                                                           1.82E+04
                                                                                         444.6
                                                                                                    .497
                                 4.67E+04
2.22E+04
                                                                                                          6.16E+04
                                                                           .698
               673.8
                         .517
  .698
                                                                                         678.9
                                                                                                    .518
                         .535
  . 175
               706.7
                                                                            .775
                                                                                                   .539
                                                                                         706.2
                                                                                                              1.86E+04
                                2.22E+04

1.70E+04

1.62E+04

1.56E+04

1.32E+04

1.40E+04

1.39E+04

1.47E+04
                                                                                                          1.86E+04
1.69E+04
1.63E+04
1.57E+04
1.32E+04
1.36E+04
1.40E+04
  .851
                         .546
               730.2
                                                                            .851
                                                                                                    -548
                                                                                         729.5
                         . 554
  .927
               742.1
                                                                            927
                                                                                         741.4
                                                                                                    .557
                         .563
 1.003
               737.4
                                                                           1.003
                                                                                         736.7
                                                                                                    .565
                         .569
 1.067
               700.2
                                                                           1.06/
                                                                                         699.7
                                                                                                    .571
                                                                                                                             4.37E+02
                         .577
 1.156
               732.8
                                                                           1.156
                                                                                         732.3
                                                                                                    .580
                                                                                                                             3.79E+02
                         .584
 1.232
               704.8
                                                                           1.232
                                                                                                          1.40E+04
1.46E+04
                                                                                         704.0
                                                                                                    .587
 1.257
               707.8
                          .587
                                                                           1.257
                                                                                         707.1
                                                                                                    .589
                          .593
               733.2
                                     1.41E+04
 1.321
                                                                                                    .595
                                                                           1.321
                                                                                         732.7
                          .599
 1.384
               770.9
                                     1.49E+04
                                                                                                           1.49E+04
1.51E+04
                                                                           1.384
                                                                                         770.2
                                                                                                    .602
 1.460
               794.8
                          .607
                                     1.52E+04
                                                                           1.460
                                                                                         794.1
                                                                                                    .610
               796.0
                          .612
                                     1.46E+04
 1.511
                                                                           1,511
                                                                                         795.2
                                                                                                              1.45E+04
                                                                                                    .615
               773.5
                          .618
                                     1.51E+04
 1.562
                                                                           1.562
                                                                                                    .620
                                                                                         772.8
                                                                                                               1.48E+04
 1.613
                          .623
                                     1.51E+04
               789.8
                                                                                                    .625
                                                                           1.613
                                                                                         789.0
                                                                                                          1.49E+04
               822.9
                         .631
                                     1.51E+04
 1.689
                                                                           1.689
                                                                                                    .633
                                                                                         822.1
                                                                                                               1.49E+04
                                 1.49E+04
               842.5
 1.765
                          .639
                                                                           1.765
                                                                                         841.9
                                                                                                    .641
               835.7
                          . 644
                                     1.51E+04
 1.816
                                                                           1.816
                                                                                         835.6
                                                                                                   .646
                                                                                                          1.418+04
                         .659
 1.867
               723.0
                                     7.12E+04
                                                                                                          1.14E+05
                                                                           1.867
                                                                                         702.4
                                                                                                    .668
                                                                                                            1.74E+04
 1.918
               472.7
                          .680
                                 4.96E+04
                                                                           1.918
                                                                                                    .691
                                                                                         458.8
 1.994
               522.1
                         .698
                                1.92E+04
```

1.994

2.070

519.5

464.3

.700

.709

1.87E+04

1.28E+04

INEL POST-CHE EXPERIMENT NO. 118

POINT SERIA	L NO. 2116	5.090 (T	IME= 370.50 SEC		POINT SERIA	L NO. 11	18.050	(TIME= 450	.50 SEC	
LOOP PRESSI	BE(PE=3)		16 10 MPA		LOOP PRESSU	RE(PE-3)		16.14	MPA	
ECV TEMPEDA	TUDE (TE-ECV	/- 1T \	613 3 K		FCV TEMPERA	TURE! TE-FO	(V-1T)	603.5	K	
TCY TEMPERA	FYHAL DY		501F+06 17VC		LUD INLET E	NTHAL DY		1 5205+06	LIVE	
THE INTEL	NIHALPY		. 391E+00 J/KG		TEST SECTION	HIDALFT		1.3201.400	37 40	
IEST SECTION	N:				1121 256110	N.S.		78.00	****	
PRESSU	RE		.48 MPA		PRESSU	RE		. 79	MPA	
SAT TE	MP		423.80 K		SAT IE	MP		443.08	K	
MASS F	LUX		17.76 KG/SEC	-M##5	MASS F	LUX		17.70	KG/SEC-	M**2
INIET	QUALITY		. 453		INLET	QUALITY		. 391		
INLET	ENTHALPY	1.	.591E+06 J/KG		INLET	ENTHALPY		1.520E+06	J/KG	
QUENCH FRON	1:				QUENCH FRON	T:				
FLEVAT	LON		.740 M		ELEVAT	ION		.619	M	
VELOCI	TV		.0029 M/SEC		VELOCI	IY		.0019	M/SEC	
OUAL LT			520		OHALIT	V		1100		
NET THE POW	FR TO FLUID		0.0 W		NET LHP POW	ER TO FLUI	0	0.0	W	
HET EIN FOR				100	LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTION PRESSU SAT TEM MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW					
VAPOR TEMPER	RATURE MEAS	UREMEN! LO	DEATTON INFORMA	TON	STEWATION	NATURE MEA	SUKEMENT	LOCATION	NIORMAI	TON
ELEVATION	DZQF	IV X	E XA		ELEVATION	UZQ1	1 V	AX 1X		
(M)	(M)	(K)			VAPOR TEMPE ELEVATION (M)	(M)	(K)			
1.537	796 5	79.6 .6	13 .530		1.232	.613	634.0	.620 .515		
		DEMENT 10	CATION INFORMAT	ON	WALL TEMPER ELEVATION (M)	ATURE MEAN	DOCHENY	LOCATION	HE ODINA T	ON.
WALL TEMPER	ATURE MEASU	IKEMENT LO	LATION INFORMATI	WEAT LOCK	FLEVATION	ATURE MEAS	SUREMENT	LOGATION I	FORMALI	ON
ELEVATION	TEMP	XŁ	HEAT FLUX	HEAT LUSS	ELEVATION	TEMP	XE.	HEAT	FLUX	HEAT LOSS
(M)	(K)		M/WasS	M/M==2	(M)	()		W/M	**2	M/W**5
	F04 7	6.5.6	0. 205+02		(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 .003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	Table in	707	0.11	Carolin .	
.013	420.7	.424	9.381 +03		.013	440.0	. 393	2.13	+04	
,051	427.7	.450	9.386 +03		.051	447.7	. 399	2,13	+04	
.063	425.3	.457	9.34E+U3		.063	445.9	.401	2.13	+04	
.089	430.7	.459	9.481+03		.089	450.5	, 404	2.14	+04	
.114	425.3	.460	9.36E+03		. 114	446.1	, 408	2.13	+04	
. 140	424.1	.462	9.32E+03		. 140	446.2	.412	2.12	+04	
. 165	425.1	.463	9.32E+03		. 165	446.3	.416	2.12	1+04	
.317	426.5	.473	9.52E+03		.317	447.9	.439	2.15	+04	
. 394	435.7	.478	1.02E+04		. 394	454.6	. 450	2,18	+04	
.470	441.1	484	1.01E+04		. 470	460.4	.462	2 25	+04	
.546	hhh O	489	1.13E+04		.546	475.8	476	2.67	+04	
.622	436 3	495	1.21E+04		.622	676.6	500	6.56	+04	
.698	520.8	500	3 99F+04		698	785 6	526	2 90	+01	
.775	656 6	520	3 90E+04		775	814 0	561	2 83	+0h	
.113	713 0	566	1 815 404		851	840 1	556	2.03	+04	
.851	712.0	. 244	1.016+04		027	960.7	. 556	2.70	+04 05	
.927	721.4	. 223	1 565400		1 003	971 2	. 2/1	2.711	+04	
1.003	124.2	. 261	1.306+04	3 h05402	1,003	011.2	. 202	2.70	7114	0. 115.03
1.067	690.8	. 200	1.332+04	3.406+02	1.007	014.5	. 296	2.25	+04	2.11E+03
1.156	722.4	.576	1.38E+04	2.212402	1.156	870.6	.611	2.42	+04	8.21E+02
1.232	693.8	.583	1.38E+04		1.232	842.2	. 624	2.36	+04	
1.257	696.3	.585	1.46E+04		1.257	855.3	.628	2.54	+04	
1.321	723.2	.592	1.41E+04		1.321	869.0	.639	2.46	+04	
1.384	759.6	.598	1.48E+04		1.384	925.2	.650	2.491	+04	
1.460	783.1	.606	1.50E+04		1.460	954.2	.663	2.491	+()4	
1.511	784.1	.611	1.45E+04		1.511	955.2	.672	2.35	+04	
1.562	762.2	.616	1.45E+04		1.562	940.3	.681	2.471	+04	
1.613	778.5	.621	1.46E+04		1.613	959.4	690	2.471	+04	
1.689	811.5	628	1 48F+04		1.689	990 3	703	2 1/1/	+04	
1.765	831 6	636	1 485+04		1 765	1001 3	727	6 10	+04	
1.105	031.5	.030	1 005+00		1 016	607.3	. 121	0.49	104	
1.816	010.4	.642	7 935105		1.010	507.2	. 761	1.291	+05	
1.867	548.5	.658	1.276+04		1.867	504.2	. 190	3.20	+04	
1.918	448.3	.673	1.281+04		1.918	468.0	.800	2.32	+04	
1.994	502.3	.680	1.63E+04		1.994	500.9	.813	2.50	+04	
2.070	457.6	.687	1.20E+04		2.070	468.3	.826	2.261	+04	

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8	SEC. M**2 G G EC	NFORMATION	ATTON	W/M**2						9 005 5003	6.65£+02						
11 NO. 118	494.50 6.06 MPA 6.06 J/K E+06 J/K 7.57 KG/ 3.92 J/K E+06 J/K 6.98 M	NO X	.525 ON INFORM	HEAT FLUX	2, 12E+04 2, 13E+04 2, 13E+04	200	14E	27E 36E	4.86£+04 2.89£+04 2.73£+04	2.72E+04 2.67E+04	19h	46i	55E	38E	2.54£+04 2.54£+04 4.86F+04	19E	2.22E+04 2.36E+04 2.23E+04
EXPERIMENT	1.521 1.521 1.521 1.521	LOCAT XE	.609 LOCATI														
=	18.061 CV-17)	MEASUREMENT MP) TV (K)	900 S	×	.399	. 409 . 113	1,451	488	. 507	.558	.599	.616	.639	.671	.693	. 726	. 755
INEL POST	RIAL NO. 1118.0 D VAPOR IEMP) SSURE(PE-3) ENTHALPY TION: SSURE IEMP SI FLUX ET ENTHALPY ET ENTHALPY FOUR SOUTH ET ENTHALPY ET ENTHALPY FOUR FOUR FOUR FOUR FOUR FOUR FOUR FOUR	TEMPERATURE MEA	. 53 URE	(K)	1139.9 1447.4 1415.6	445.7 446.0	447.1	455.4 461.4 457.5	652.7 780.7 812.0	833.7	852.9	837.0	909.4	925.8	976.6	456.8	460.3 484.0 461.8
	POINT SERIAL NO [INFERRED VAPOR [LOOP PRESSURE (PF FCV TEMPERATURE LHP INLET ENTHAN TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUAL INLET QUAL VELOCITY OUTLINP FOWER IC	VAPOR TEMPE (INFERRED V ELEVATION (M)	1.232 WALL TEMPER	ELLVATION (M)	.051	1140	.317	. 546	.698	1.003	1.156	1.257	1.384	1.511	1.689	1.816	1.994
	-W**2	NOIL		W/W**2						2.11E+03							
ENT NO. 118	ME = 450.50 SEC 16.14 MPA 603.5 K 520E+06 J/RC 79 MPA 443.08 K 17.70 KG/SEC 17.70 KG/SEC 391 520E+06 J/KG 619 M 609 M/SEC 499 0.0 W	=	TION INFORMATION	W/M**2	2.13£+04 2.13£+04 2.14£+04	222			2.83E+04 2.76E+04 2.71E+04	2.70E+04 2.25E+04	. 36E	1961	4 #	476	6,496+04	.20E	.50E
POST-CHF EXPERIMEN	E	SUREMENT LOCAL TV XE (K)	MEASUREMENT LOCAT	.393	404	1816 1816 1830	.450	. 526	.541 .556 .73	. 596	.624	.639	.672	.690	727	.800	.826
-			of take														
INEL POST-CH	P PRESSURE PE-3) TEMPERATURE PE-3) TEMPERATURE TE-FCV-III) INIET EN HALPY T SECTION: PRESSURE SAT TEMP MASS FLUX INIET GUALITY INLET EN THALPY INLET EN THALPY OCH FRONT: LE EVATION VELOCITY QUALITY LHP POWER TO FLUID	16MPEKATURE MEASUREMENT 10N DZQF TV (M) (K)	TEMPERATURE MEASU	(K)	4415.9 415.9 450.5	446.3	454.6	676.6	814.0 840.1 860.7	871.2	842.2	869.0	954.2	959.4	1001.3	504.2	500.9 468.3

INEL	POST-CHE EXP	ERIMENT NO. 118			INEL POS	I-CHF EXP	ERIMENT NO	118	
POINT SERIAL NO.	2118.060	(TIME= 494.50 SEC)		POINT SERIAL	NO. 21	18.070	(TIME= 540	.50 SEC)	
LOOP PRESSURE PERCY TEMPERATURE LAP INLET ENTHAL TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITINET ENTHAL QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO	TY ILPY	16.06 MPA 603.7 K 1.521E+06 J/KG .79 MPA 443.09 K 17.57 KG/SEC-M .392 1.521E+06 J/KG .698 M .0017 M/SEC .507 0.0 W	**2	QUENCH FROM	TE TO THE TENTH ALPY		.79 443.12 17.62 .391 1.521E+06 .775 .0017	MPA K KG/SEC-N J/KG M M/SEC	4**2
VAPOR TEMPERATURE ELEVATION DZG (M) (M)	E MEASUREMENT	LOCATION INFORMATION			RATURE ME DZQF (M)	ASUREMENT TV (K)	LOCATION XE XA	INFORMAT	ION
1.537 .83		.662 .521		1.537			.666 .538		
	MEASUREMENT I		N HEAT LOSS W/M**2	WALL TEMPERA ELEVATION (M)	TEMP (K)				ON HEAT LOSS W/M**2
.051 44 .063 44 .089 44 .114 .140 44 .165 44 .165 45 .317 .394 45 .470 45 .546 46 .622 .698 .65 .775 78 .851 .927 83 .1.003 84 .1.067 75 .1.156 85 .1.232 82 .1.257 83 .1.257 83 .1.321 85	19.9 394 399	2.13E+04 2.13E+04 2.13E+04 2.13E+04 2.13E+04 2.14E+04 2.14E+04 2.17E+04 2.27E+04 2.36E+04 4.86E+04 2.89E+04 2.72E+04 2.67E+04 2.67E+04 2.67E+04 2.46E+04 2.46E+04 2.55E+04 2.55E+04 2.55E+04 2.55E+04 2.52E+04	2.06E+03 6.65E+02	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	440.8 447.1 445.5 445.9 445.9 446.4 450.4 450.3 472.2 665.1 781.9 867.3 822.2 9921.3 891.9 921.3 9921.3 9925.6 844.8 449.4 4464.4 4472.6 456.9	.409 .413 .416 .440 .451 .463 .475 .487 .499 .522 .546 .561	2.13 2.14 2.13 2.14 2.16 2.16 2.20 2.19 2.47 5.92 2.72 2.71 2.34 2.54 2.65 2.55 2.55 2.55 2.55 2.55 2.55 2.55	E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	1.71E+03 4.29E+02

454.5

.823

POINT SERIAL NO. 1119.010 (TIME= 174.50 SEC) POINT SERIAL NO. 2118.080 (TIME = 584.50 SEC) FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

16.12 MPA
603.7 K
1.520E+06 J/KG LOOP PRESSURE (PE-3)

FCV IEMPERATURE (TE-FCV-11)

LHP INLET ENTHALPY

1.564E+06 J/KG TEST SECTION: .79 MPA PRESSURE 3.59 MPA PRESSURE PRESSURE .79 MPA
SAT TEMP .443.09 K
MASS FLUX .17.39 KG/SEC-M**2
INLET QUALITY .391
INLET ENTHALPY 1.520E+06 J/KG | SAT TEMP | S17.09 K |
| MASS FLUX | 19.94 KG/SEC-M**2 |
| INLET QUALITY | .291 |
| INLET ENTHALPY | 1.564E+06 J/KG QUENCH FRONT: QUENCH FRONT: .847 M ELEVATION .330 M ELEVATION .0077 M/SEC VELOCITY VELOCITY .0016 M/SEC . 385 QUALITY .530 0.0 W QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FEUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (K) (M) (M) .902 809.5 .765 .546 1.232 .690 644.2 .659 .543 1.537 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M**2 (M) (K) W/M**2 W/M##2 (K) (M) 440.4 .393 2.11E+04 446.8 .399 2.14E+04 445.3 .401 2.14E+04 448.8 .405 2.14E+04 445.3 .409 2.14E+04 .013 .293 2.32E+04 .301 3.19E+04 .303 2.41E+04 546.4 .013 .051 568.5 .051 .063 . 303 545.1 .063 .308 2.81E+04 .313 2.79E+04 .319 2.86E+04 .089 562.9 .089 . 114 551.1 . 114 . 140 .413 2.14E+04 538.4 . 140 445.7 .417 2.13E+04 .440 2.14E+04 .451 2.15E+04 537.6 2.62E+04 . 165 . 165 445.6 . 324 7.02E+04 .317 694.9 .377 .317 445.8 . 394 742.4 .421 8.39E+04 .394 448.9 2.16E+04 2.17E+04 2.17E+04 2.17E+04 2.25E+04 2.43E+04 4.80E+04 8.77E+04 7.31E+04 7.06E+04 6.50E+04 .463 451.6 .470 808.5 .469 .470 .546 .475 .513 861.6 .546 452.2 874.9 .487 .622 -554 .622 447.7 .698 .592 912.6 6.50E+04 .499 .698 460.6 4.80E+04 2.81E+04 2.66E+04 2.35E+04 2.55E+04 2.47E+04 2.64E+04 2.52E+04 .775 .627 6.33E+04 .660 5.47E+04 .689 4.74E+04 931.0 465.2 .512 .775 .851 657.0 .531 954.1 .851 -552 .927 966.8 779.2 .927 .713 3.85E+04 .729 2.94E+04 .748 2.94E+04 1.003 943.5 -567 1.003 797.8 1.067 .578 863.1 761.5 1.067 .594 1, 156 937.4 1.156 813.2 .765 3.09E+04 .771 3.13E+04 .785 3.02E+04 .800 3.31E+04 .817 2.89E+04 -608 1,232 917.1 1.232 781.2 1.257 .612 922.8 1.257 794.0 1.321 947.3 825.1 . 524 1.321 -636 2.60E+04 2.62E+04 1.384 1002.5 873.8 1.384 -650 1.461 1.460 903.0 1016.9 2.50E+04 1.06E+05 1.511 .659 1.511 905.4 1016.6 .827 2.58E+04 .683 1.562 1004.4 813.8 2.73E+04 1.562 .837 1.14E+05 2.70E+04 2.31E+04 2.06E+04 2.20E+04 .723 1.613 1010.9 2.54E+04 1.613 585.5 . 847 .761 467.0 1.689 1016.7 .860 1.689 2.14E+04 .775 1.765 452.3 .871 1.765 1013.1 1.36E+04 .783 1.816 1000.7 1.816 446.1 .877 .791 1.867 1.867 459.9 974.7 .882 1.40E+04 1.21E+04 .799 2.18E+04 .887 1.918 453.5 1.918 955.2 2.23E+04 2.16E+04 465.1 .811 1.994 .893 9.42E+03 1.994 922.1

2.070

906.4

.897 6.05E+03

	THEF LOST.	CHI LAILENIE	ERI NO. 112			THE THE				
POINT SERIAL (INFERRED VI LOOP PRESSUI FCV TEMPERA LHP INLET EL TEST SECTION PRESSUI SAT TEL MASS FI INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT! NET LHP POW	L NO. 1119 APOR TEMP) HE (PT-3) TURE (IE-FCV NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION IV Y ER TO FLUID	.021 (TIM -1T) 1.5	ME= 178.50 SEC 16.10 MPA 609.9 K 664E+06 J/KG 3.59 MPA 517.10 K 19.85 KG/SEC- .290 664E+06 J/KG .363 M .0104 M/SEC .396 0.0 W	-M**2	POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	L NO. 11 APOR LEMF RE(PE-3) TURE(TE-F NTHALPY N: RE RE MP LUX QUALITY ENTHALPY I: ION IY Y ER IO FLU	(19.031 (Y) (CV-1T)	(TIME= 182. 16.09 609.8 1.563E+06 3.59 517.13 19.84 .290 1.563E+06 .405 .0104 .403 0.0	MPA K J/KG MPA K KG/SEC- J/KG M M/SEC	-M**2
VAPOR TEMPE	RATURE MEAS	UREMENT LOC	CATION INFORMAT	TION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION I	NEORMA	ION
(INFERRED V	APOR TEMP)				(INFERRED V	APOR TEMP)			
ELEVATION (M)	DZQF (M)	TV XE.	XA	TION	(M)	(M)	(K)	XE XA		
* 939	960 3	05 0 758	51/2		1 232	827	780 0	740 543		
			TION INTODMST	HEAT LOSS W/M**2	MALL TEMBER	ATHRE MEA	CHDEMENT	OCATION IN	CODMAT	OH
WALL TEMPER	ATUKE MEASU	REMENT LOCA	UEAT FLOR	WEAT LOSS	FLEVATION	TEMP	SUREMENT	LUCATION IN	FLUV	HEAT LOSS
(M)	(K)	AL.	W/M**2	MEAT 1055 W/M**2	(M)	(K)	716	W/M#	*2	W/M##2
4112										
.013	545.4	.293	2.30E+04		.013	543.2	. 292	2.27	+04	
.051	200.0	. 300	2.09E+04		063	562 1	302	2.906	+0/s	
.063	544.1	207	2 7hF+0h		089	558 1	306	2 616	+04	
.089	501.3	317	2 73E+0h		114	506.0	311	2 576	+04	
114	537.0	318	2 755+04		140	535	316	2 576	+04	
140	536.6	222	2 555+04		165	534 7	321	2 125	+04	
. 102	230.0	272	6 30F+0h		317	616.2	364	5 hhr	+04	
206	776 8	412	7 61E+0h		394	687 9	307	6 285	+04	
1.70	781 h	457	8 37F+04		470	779 B	435	7 206	+04	
546	816.0	503	8 445+04		546	791.3	1178	8 28F	+()/4	
622	863 3	546	6 96F+04		622	827.2	525	8 36F	+04	
608	902.8	584	6.45F+04		-698	880.4	566	6.475	+04	
775	921 6	620	6.32E+04		.775	899.8	.602	6.36E	+04	
851	946.2	653	5.55E+04		.851	926.8	.636	5.79E	+04	
927	960.8	.682	4.78E+04		.927	945.6	. 666	5.088	+04	
1.003	939.1	. 706	3.94E+04		1.003	926.3	.693	4.51E	+04	
1.067	860.6	.722	2.95E+04		1.067	854.3	.711	3.15E	+04	
1.156	935.0	.741	2.98E+04		1.156	928.6	. 731	3.18E	+04	
1,232	914.3	. 758	3.08E+04		1.232	907.5	. 749	3.17E	+04	
1.257	920.0	.764	3.27E+04		1,257	911.9	. 755	3.438	+04	
1.321	945.0	. 179	2.99£+04		1.321	939.2	.771	3.09E	+04	
1.384	999.6	. 793	3.24E+04		1.384	993.3	. 785	3.25€	+04	
1.460	1014.8	.810	2.83E+04		1.460	1010.1	.802	2.89E	+()4	
1.511	1015.0	.820	2.51E+04		1,511	1011.0	.813	2.57€	+04	
1.562	1002.6	.830	2.63E+04		1,562	998.9	.822	2.661	+04	
1.613	1009.7	.839	2.486+04		1.613	1007.0	.832	2.48E	+04	
1.689	1016.4	. 852	2.08E+04		1.689	1015.7	.845	2.09E	+04	
1.765	1013.4	.862	1.69E+04		1.765	1014.4	. 855	1.69E	+04	
1.816	1001.5	.868	1.33E+04		1.816	1003.4	.861	1.368	+04	
1.867	975.7	.873	1.38£+04		1.867	978.0	.866	1.39E	+04	
1.918	956.5	.878	1.19£+04		1.918	959.6	.871	1.24E	+04	
1.994	924.1	. 884	9.508+03		1.994	926.5	.877	9.88E	103	
2.070	909.1	.888	0.241.403		2.070	915.0	.882	6.88£	103	

	THE PAGE	- Serie Court	CONTRACT INC.				FIRE C. CO.				
POINT SERIA	L NO. 111	9.041 (TIME= 186.	50 SEC		POINT SERIA	I NO. 11	19.051	(TIME	= 192.50 SEC	1
CINFERRED V	APOR TEMP		racing and			(INFERRED V	APOR TEMP	1			
LOOP PRESSU	RE(PE-3)		16 05	MPA		LOOP PRESSU	REIPE-31			16.07 MPA	
FCV TEMPERA	TUREL IE-EC	V-111	609.7	K		FCV TEMPERA	TURF (TF-F	CV-1T)		609.6 K	
THE INLET E	NTHAL PY		1.562F+06	J/KG		THE INTEL F	NIHALPY		1.56	1E+06 J/KG	
TEST SECTIO	N-		1.2000	37 114		TEST SECTIO	N.		11.00	12.00 0710	
PRESSH	0.5		3.50	MDA		DDE SSII	DE			3 50 MPA	
SAT TE	MP		517 19	E A		CAT TE	MD		6	17 16 K	
MACC E	I IIV		217.10	NO TOFO	MARC	SAT IE	PILE		2	20 00 KC/SEC	-MHH2
MASS I	DUALITY		19.91	KU/ SEC.	-M5	MASS F	LUX			20.00 KG/SEC	-11
INICI	CHIMETIN		1 5505206	1.700		INLET	QUALTTY			15406 1700	
ODERCH EDON	EMPHALPY		1.3051,400	J/NU		INLLI	ENTHALPT		1.20	ILTUO JING	
QUENCH FROM	1000					QUENCH FROM	13			C. C. W.	
ELEVAI	ION		.457	M		ELEVAI	ION			. 545 M	
At FOCI	14		.0185	M/SEC		AFFOCI	1Y			.0115 M/SEC	
QUALII	Y		. 420			QUALIT	Y			.445	
NET LIP POW	ER TO FLUI	D	0.0	M	-M**2	NET LHP POW	ER TO FLU	110		0.0 W	
VAPOR TEMPE	RATURE MEA	SUREMENT	LOCATION	NEORMA	FION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCA	TION INFORMA	HON
ELEVATION	DZOF	TV	XF XA			ELEVATION	DZOF	TV	KF.	XA	
(M)	(M)	(K)	AL AR			(M)	(M)	(K)	256		
1.232	.775	762.0	739 .545			1.232	.687	735.0	.726	.549	
THE TENDER	******									LOD LEFORMAT	100
WALL TEMPER	ATURE MEAS	SURLMENT L	LOCATION II	NE ORMAT	ION	WALL TEMPER	ATURE MEA	SUREMENT	LOCAL	TON INTORMAT	TON
ELEVATION	1 F MI.	XE.	HEAT	FLUX	HEAT LOSS	ELEVATION	LEMP	XE		HEAT FLUX	HEAT 1055
(M)	(K)		W/M	**5	HEAT LOSS W/M**2	(M)	(K)			M/M==5	M/Www.S
.013	542.1	.292	2,22	+04	HEAT LOSS W/M##2	.013	539.3	.291		2.21E+04	
.051	558.7	. 299	2.80	+04		.051	552.5	.298		2.578+04	
.063	541.0	301	2.271	+()4		063	538 1	300		2.17E+04	
.089	556.4	- 306	2.521	+04		089	552.2	304		2.331+04	
. 114	545.3	.310	2.481	E+04		110	541.5	309		2.28£:04	
. 140	533.8	. 315	2.421	+04		100	530.8	313		2.15E+04	
165	533.6	319	2 311	E+04		165	531 1	317		2.135+04	
.317	604.8	360	5 021	T+04		317	571 3	350		3.875+04	
300	617.8	391	5 901	10+3		300	632 0	3.76		5 256+04	
h70	700 0	626	6 751	F+04		h20	6.7h 0	1018		6 17E+0h	
546	769 0	1667	7 901	C + Orle		.470	210 2	10116		7 125 +01	
633	800.3	-407	9.33	1.404		. 540	719.2	,440		7 7h E+0h	
600	967 9	551	0.130	704		.520.	747.3	.400		7 . 741 . 704	
775	997.6	501	6 209	E+04		.698	824.8	. 332		6 h 75 + 0 h	
951	007.0	. 291	0.20	104		.775	858.2	.516		6.47£ +04	
027	016.6	.023	5.73	C+04		.851	889.6	.600		5.04E+04	
1 002	930.4	.000	2.09	104		.927	914.5	.037		5.28t +04	
1.003	910.2	-082	4,51	1.04		1.003	900.1	.000		4.731 +04	
1.007	030.2	. 700	3.25	104		1.067	840.6	. 684		3.431.704	
1.156	924.5	. 121	3.25	F+04		1.156	914.9	. 707		3.42£+04	
1.232	903.5	. /39	3.22	E+04		1.232	893.7	. 726	2	3.36E+04	
1.257	907.2	. 745	3.41	E+04		1.257	895.4	. 732		3.641+04	
1.321	935.8	. 760	3.08	E+04		1.321	927.5	.748		3.28E+04	
1.384	989.6	.775	3.25	E+04		1.384	980.5	. 764		3.43E+04	
1.460	1007.4	. 792	2.84	+04		1.460	1000.1	. 783		3.238+04	
1.511	1008.9	.802	2.52	E+04		1.511	1002.9	. 794		2.89E+04	
1.562	996.9	.811	2.59	E+04		1.562	991.2	.805		2.97E+04	
1.613	1005.6	.821	2.42	E+04		1.613	1001.2	.816		2.77E+04	
1.689	1015.3	.833	2.05	E+04		1.689	1013.2	.830)	2.44E+04	
1.765	1015.0	. 844	1.68	E+04		1,765	1015.2	. 843		2.06E+04	
1.816	1004.5	.849	1.35	E+()4		1.816	1006.0	. 850)	1.74E+04	
1.867	979.4	.854	1.38	+04		1.867	981.9	.857		1.66E+04	
1.918	961.3	.859	1.23	E+04		1.918	964.6	. 863		1.58E+04	
1.994	930.9	.866	1.00	E+04		1.994	936.3	.870)	1.22E+04	
2.070	918.2	.870	7, 131	E+03		2.070	925.4	877		9.66E+03	
	1000						2000			21001-03	

2.070

.851

1.12E+04

```
POINT SERIAL NO. 1119.071 (TIME= 205.50 SEC)
POINT SERIAL NO. 1119.060 (TIME= 199.50 SEC)
                                                                       (INFERRED VAPOR TEMP)
                                                                                                         16.08 MPA
                                 16, 10 MPA
                                                                       LOOP PRESSURE(PE-3)
LOOP PRESSURE(PF-3)
                                                                       FCV TEMPERATURE (TE-FCV-11)
                                                                                                        609.2 K
FCV TEMPERATURE (TE-FCV-11)
                                 609.4 K
                                                                       LHP INLET ENTHALPY
                                                                                                    1.558E+06 J/KG
LHP INLET ENTHALPY
                            1.560E+06 J/KG
                                                                       TEST SECTION:
TEST SECTION:
                                                                            PRESSURE
                                                                                                          3.59 MPA
     PRESSURE
                                  3.59 MPA
                                                                                                      517.17 K
                              517.18 K
                                                                            SAT TEMP
     SAT TEMP
                                                                                                       19.82 KG/SEC-M**2
                               19.93 KG/SEC-M**2
     MASS FLUX
                                                                            MASS FLUX
                                                                            INLET QUALITY
                                                                                                          .287
     INLET QUALITY
                                  .288
                                                                                                     1.558E+06 J/KG
                                                                            INLET ENTHALPY
     INLET ENTHALPY
                             1.560E+06 J/KG
                                                                       QUENCH FRONT:
QUENCH FRONT:
                                                                                                          .680 M
                                  .621 M
                                                                            ELEVATION
    ELEVATION
                                                                                                         .0094 M/SEC
                                 .0102 M/SEC
                                                                            VELOCITY
     VELOCITY
                                                                                                         .464
                                 .458
                                                                            QUALITY
     QUALITY
                                                                       NET LHP POWER TO FLUID
                                                                                                           0.0 W
NET LHP POWER TO FLUID
                                   0.0 W
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VASOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       (INFERRED VAPOR TEMP)
CLEVATION DZOF
                     TV
                           XE XA
                                                                       ELEVATION DZQF
                                                                                            TV
                                                                                                           XA.
 (M)
            (M)
                     (K)
                                                                        (M)
                                                                                   (M)
                                                                                             (K)
1.232
             .611
                    700.7 .694 .543
                                                                                           687.5
                                                                                                    .669 .531
                                                                        1.232
                                                                                   .552
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                HEAT LOSS
ELEVATION
             TEMP
                        XE
                                  HEAT FLUX
                                                                       ELEVATION TEMP
                                                                                                XE HEAT FLUX
                                                                                                                        HEAT LOSS
                                                 W/M##2
                                   W/M**2
 (M)
              (K)
                                                                                                           W/M##2
                                                                                                                         W/M##2
                                                                                     (K)
                                                                        (M)
 .013
              536.7
                        .290
                                  2.14E+04
                                                                                                .289
                                                                                                          2.11E+04
                        .297
                                                                                     534.8
  .051
              547.3
                                  2.36E+04
                                                                         .013
                                                                                               .296
                                                                                                          2.25E+04
                                                                                     544.0
                                                                        .051
  .063
              536.1
                        .299
                                  2.10E+04
                                                                                                .298
                                                                                                          2.07E+04
                                                                         .063
                                                                                     534.5
                                  2.22E+0h
  .089
              548.6
                        . 303
                                                                                                . 302
                                                                                                          2.16E+04
                                  2.17E+04
                                                                                     546.2
  .114
                         .307
                                                                        .089
              538.4
                                                                                                . 306
                        .311
                                                                        .114
                                                                                                          2.12E+04
  . 140
              528.8
                                  2.05E+04
                                                                                     536.4
                                                                                                .309
                                                                                                         2.01E+04
                                                                        . 140
                                                                                     527.7
              529.2
                                  2.04E+04
  . 165
                        . 315
                                                                                                .313
                                                                                                         1.99E+04
                                                                         . 165
                                                                                     528.1
  .317
              549.0
                         . 341
                                 2.63E+04
                                                                        .317
                                                                                                          2.33E+04
                        .360
                                                                                     544.5
                                                                                                . 338
                                4.30E+04
  .394
              592.8
                                                                         . 394
                                                                                                          2.66E+04
                                5.42E+04
                                                                                     571.8
                                                                                                .352
             629.3
                         .388
  .470
                        .421
                                6.53E+04
                                                                                                          4.60E+04
                                                                         .470
                                                                                     594.8
                                                                                                .372
  .546
             669.0
                                                                                                          5.91E+04
                                                                                                402
                         .458
                                                                                     629.7
  .622
              687.8
                                  6.87E+04
                                                                         .546
                                                                                                          6.19E+04
                                                                                                . 435
                                                                         .622
                                                                                     646.1
  .698
              769.3
                         .498
                                  7.43E+04
                                                                         .698
                                                                                                          7.02E+04
                                  6.98E+04
                                                                                     746.5
                                                                                                .472
  .775
              810.2
                         .539
                                  5.70E+04
                                                                        .775
                                                                                     762.3
                                                                                                .512
                                                                                                          6.85E+04
  .851
              859.2
                         .574
                                                                                                .547
                                                                                                          5.83E+04
                                  5.22E+04
                                                                         .851
                                                                                     832.8
  .927
              888.7
                         .605
                                                                                                .578
                                                                                                          5.22E+04
 1,003
              878.8
                         .633
                                  4.63E+04
                                                                         .927
                                                                                     866.5
                                                                                                          4.67E+04
                                                                        1.003
                                                                                     860.2
                                                                                                .606
                                  3.53E+04
 1.067
              828.0
                         .652
                                                                                                .626
                                                                        1.067
                                                                                     816.8
                                                                                                          3.56E+04
                         .675
                                  3.45E+04
 1.156
             903.0
                         . 694
                                                                                     892.3
                                                                                                .649
                                                                                                          3.54E+04
 1.232
              881.0
                                  3.46E+04
                                                                        1.156
                        .701
                                                                                                          3.53E+04
 1.257
              882.8
                                   3.66E+04
                                                                        1.232
                                                                                     869.6
                                                                                                .669
                                                                                                          3.68E+04
                        .717
                                                                        1.257
                                                                                     870.8
                                                                                                .676
 1.321
              916.8
                                  3.31E+04
                                                                                                .692
                                                                        1.321
                                                                                     907.7
                                                                                                          3.28E+04
                        .733
                                  3.50E+04
 1.384
              968.8
                                                                                     958.7
                                                                                                .708
                                                                                                          3.44E+04
 1,460
              990.0
                         .752
                                  3.24E+04
                                                                        1.384
                        .764
                                                                                                .726
                                                                                                          3.16E+04
 1.511
              994.4
                                  2.94E+04
                                                                        1.460
                                                                                     981.7
                        .775
                                                                                                .738
                                                                                                          2.85E+04
 1.562
              982.9
                                  3.03E+04
                                                                        1.511
                                                                                     987.3
                                                                                                .748
                                                                                     976.3
                                                                                                          2.86E+04
             994.4
                         . 786
                                  2.84E+04
                                                                        1.562
 1.613
                                                                                                .759
                                  2.52E+04
                                                                        1.613
                                                                                     989.3
                                                                                                          2.66E+04
 1.689
             1008.9
                         .801
                        .814
                                                                                    1005.6
                                                                                                .773
                                                                                                          2.38E+04
 1.765
             1013.7
                                  2.17E+04
                                                                        1.689
                         .821
                                  1.85E+04
                                                                        1.765
                                                                                    1012.6
                                                                                                . 785
                                                                                                          2.04E+04
 1.816
             1006.0
                                                                                    1006.0
                                                                                                . 793
                                                                                                          1.75E+04
 1.867
              983.3
                         .828
                                  1.80E+04
                                                                        1.816
                                                                                                .799
                                  1.72E+04
                                                                        1.867
                                                                                     984.1
                                                                                                          1.77E+04
 1.918
              966.6
                         . 835
                                                                                                .806
                         .844
                                  1.37E+04
                                                                        1.918
                                                                                     968.0
                                                                                                          1.68E+04
 1.994
              941.1
```

1.994

2.070

944.6

937.2

.814

.822

1.40E+04

1.17E+04

POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	E NO. 1119.0 APOR TEMP) RE(PE-3) TURE(TE-FCV-1 NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION TY Y ER TO FLUID	081 (TIM 11) 1.5	E= 215.50 SEC 16.03 MPA 608.9 K 57E+06 J/KC 3.59 MPA 517.14 K 19.53 KG/SEC .286 57E+06 J/KG .770 M .0084 M/SEC .468 0.0 W	-M**2	POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FROM ELEVAT VELOCI QUALIT NET LHP POW	L NO. 11 APOR TEMP RE(PE-3) TURE(TE-P NTHALPY N: RE MP LUX QUALITY ENTHALPY I: ION TY Y ER TO FLE	119.091 P) FCV-1T)	1.554E 3.554E 1.554E 3.517 1.554E	226.50 SEC .00 MPA 8.5 K +06 J/KG .59 MPA .15 K .45 KG/SEC 285 +06 J/KG 851 M 065 M/SEC 459 0.0 W) -M**2
VAPOR TEMPE	RATURE MEASUR	EMENT LOC	ATION INFORMA	ION	VAPOR TEMPE (INFERRED V ELEVATION (M)	RATURE ME	ASUREMENT	LOCATI	ON INFORMA	TION
ELEVATION	DZQF TV	XE	XA		ELEVATION	DZQF	TV	XE	XA	
(M)	(M) (K	()			(M)	(M)	(K)			
1.232	-462 647	.0 .633	. 525		1,232	.381	606.0	.586 .	510	
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	18 MP (K) 532.1 540.0 532.4 543.0 533.7 526.8 540.0 565.9 574.5 579.7 583.3 656.9 682.2 762.0	.288 .294 .296 .300 .304 .308 .312 .335 .347 .361 .379 .404 .436 .470 .503	### 1 FLUX #/M**2 2.06E+04 2.14E+04 2.02E+04 2.10E+04 2.06E+04 1.96E+04 2.16E+04 2.26E+04 2.71E+04 3.55.+04 5.16E+04 6.21:+04 5.93E+04 5.93E+04	W/M**2	WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	11 MP (K) 530.0 536.8 530.6 540.2 531.4 525.1 525.7 536.5 560.4 565.5 547.2 581.8 680.0	.287 .293 .295 .299 .302 .306 .310 .333 .345 .359 .373 .387 .405	2 2 2 2 2 2 1 1 1 2 2 2 2 2 2 2 3 3 5 4 5 4 5 2 2 2 2 2 2 2 2 3 5 4 5 4 5 5 4 5 4 5 5 5 4 5 5 5 5 5 5	M/M**2 .02E+04 .06E+04 .06E+04 .05E+04 .05E+04 .02E+04 .96E+04 .95E+04 .95E+04 .25E+04 .45E+04 .45E+04 .45E+04 .45E+04	HEAT 1.055 W/M**2
.927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	826.3 825.8 796.7 872.2 848.2 849.2 891.9 942.0 966.9 974.6 964.4 979.3 998.4 1009.3 1004.2 988.7 948.9	.535 .565 .586 .611 .633 .641 .658 .675 .707 .719 .731 .748 .763 .772 .780 .788 .799 .809	5.62E+04 5.00E+04 3.79E+04 3.81E+04 4.06E+04 3.93E+04 3.43E+04 3.47E+04 3.19E+04 3.26E+04 3.06E+04 2.87E+04 2.20E+04 2.13E+04 1.73E+04 1.73E+04 1.54E+04		ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	769.6 791.3 773.6 849.5 817.8 824.3 873.5 922.0 948.0 957.7 947.9 964.9 965.0 998.1 979.9 965.0 950.2	. 489 .518 .537 .561 .586 .595 .613 .629 .649 .662 .674 .720 .730 .739 .748 .761	5433554333332222211	71E+04 38E+04 62E+04 67E+04 11E+04 39E+04 55E+04 46E+04 22E+04 39E+04 16E+04 42E+04 42E+04 44E+04 44E+04 46E+04 70E+04 47E+04 47E+04 47E+04 47E+04 47E+04 47E+04	

	INEL POS	ST-CHF EXP	ERIMEN	T NO. 119			INEL POS	T-CHF EXP	ERIMEN	NO. 121	
POINT SE	RIAL NO. 1	119.101	{TIME=	236.50 SEC	1)	POINT SERIAL LOOP PRESSUI FCV TEMPERAL LHP INLET ET TEST SECTION PRESSUE SAT TET MASS FI INLET (INLET (QUENCH FROM ELFVAT VELOCIT QUALITY	L NO. 11	21,010	(TIME=	172.50 SEC)
(INFERRE	SCHRELDE-31	-1	- 1	6. 10 MPA		LOOP PRESSUI	RE(PE-3)		16	5.05 MPA	
FCV TEMP	FRATURE! IF-	FCV-111	6	08.3 K		FCV TEMPERA	TURE (TE-F	CV-11)	66	9.1 K	
LHP INLE	I ENTHALPY		1.553	E+06 J/KG		LHP INLET E	NTHALPY		1.5588	+06 J/KG	
TEST SEC	TION:					TEST SECTION	N:				
PRE	SSURE			3.59 MPA		PRESSU	RE			7.06 MPA	
SAT	TEMP		51	7.18 K		SAT TEN	MP		555	7.53 K	
MAS	S FLUX		. 1	9.59 KG/SEC	-M**2	MASS FI	LUX		50	1. 11 KG/SEC-	-M==5
I NE.	ET QUALITY			.284		INLET	DUALITY		1 5500	191	
INL	ET ENTHALPY		1.553	E+U6 J/RG		OHENCH EDON	CHINALPT		1.2200	700 J/KG	
QUENCH F	RONT:			017 M		QUENCH FROM	LON			856 M	
LEE.	OCITY			ODAT MISEC		VELOCIT	IY			1120 M/SEC	
OUA	LITY		-	453		QUALITY	Y			348	
NET LHP	PONER TO FLE	UID		0.0 W		ELEVAT VELOCI QUALITY NET LHP POWE	ER TO FLU	1 D		0.0 W	
VAPOR TE	MPERATURE ME D VAPOR TEM	LASUREMENT	LOCAT	TON INFORMA	TION	VAPOR TEMPER	DZOF	TV	XE	XA INTURMA	104
			XE			ELEVATION (M)	(M)	183	AL	200	
CLEVATIO	N DZQF (M)	CKY	N.E.			(11)	7111	404			
						1.232	. 376	673.8	.584 .	464	
1.232	.315	569.0	.563	.515							
7.10.00						WALL TEMPERA	ATURE MEA	SUREMENT	LOCATIO	ON INFORMATI	ION
WALL TEM	PERATURE MEA	ASUREMENT	LOCATI	ON INFORMAT	ION	ELEVATION	TEMP	XE		IEAT FLUX	HEAT LOSS
ELEVATION	N TEMP	XE		HEAT FLUX	HEAT LOSS	WALL TEMPERATION (M)	(K)			M/W**5	M/W**5
(M)	(K)			M/M==5	M/M==2	013	5.70 0	193		56F+0h	
0.57	528 0	286	e	1 91F+0h		051	576.0	198		628+04	
.053	534 7	291		2.02E+04		.063	570.0	.200		.53E+04	
063	529.3	.293		1.988+04		.089	577.7	.203		.59E+04	
.089	538.1	.297		2.00E+04		.114	570.3	.206		.56E+04	
.114	529.8	. 301		1.99E+04		. 140	565.8	.209	- 1	.49E+04	
. 140	524.4	. 305		1.92E+04		.165	564.1	.213		.48E+04	
. 165	525.0	. 308		1.94E+04		. 317	574.8	.232		.65E+04	
.317	534.1	. 331		2.05E+04		. 394	593.3	. 243		.78E+04	
. 394	555.8	. 343		2.24E+04		.470	601.7	. 255		165+04	
470	558.0	. 356		2.301 +04		. 340	604.8	.200		015404	
. 546	558.1	. 309		2.335+04		608	617.8	206		79E+0h	
-062	566 6	396		2 57F+04		775	615.5	315	3	23F+04	
775	561.2	410		2.558+04		.851	738.0	. 344	6	.21E+04	
.851	594.8	.427		3.55E+04		.927	747.2	. 399	- 1	. 12E+05	
.927	719.9	-457		6.72E+04		1.003	810.3	.469	1	. 12E+05	
1.003	755.5	.487		4.13E+04		1.067	831.3	.515	6	.16E+04	
1.067	752.3	.506		3.77E+04		1.156	932.3	. 556	. 4	.86E+04	
1.156	827.0	.531		3.64E+04		1.232	927.2	.584	. 4	.08E+04	
1.232	782.3	. 563		7.708+04		1.257	913.7	-593		1.69E+04	
1.257	191.4	505		4.70E+04		1.321	1007 8	631		155400	
1.361	900.0	613	10 . 3	3 91F+04		1.461	1035.7	651	- 3	23F+04	
1.304	929 3	636		4 06E+04		1.511	1041.5	.664	2	97E+04	
1.511	940.0	650	. 1	3.86E+04		1.562	1038.5	.676	3	. 13E+04	
1.562	929.2	.666		4.18E+04		1,613	1047.4	.689	2	.92E+04	
1.613	949.0	.681		3.85E+04		1.689	1059.4	. 706	2	.49E+04	
1.689	912.6	.703		3.78E+04		1.765	1060.2	.721	2	.09E+04	
1.765	992.2	. 723		3.56E+04		1.816	1049.7	.729	1	.76E+04	
1.816	989.5	. 736		5.17E+04		1.867	1025.2	. 736	1	.62E+04	
1.867	972.8	. 748		3.316+04		1.918	1002.7	. 742	1	.48E+04	
1.918	958.5	- 761		2 515400		2.070	975.0	. 750	1	305403	
2.070	947.0	791		2 355+04		2.070	951.9	. / 26	,	. 302 +03	
2.070	(K) 528.0 534.7 529.3 538.1 529.8 524.4 525.0 534.1 5558.0 558.1 541.3 566.5 561.2 594.8 719.5 752.3 827.0 782.3 797.4 856.6 904.3 929.2 949.0 972.2 989.5 972.8 958.5	-131				(M) .013 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.461 1.511 1.562 1.689 1.765 1.816 1.867 1.918 1.994 2.070					

	HET MOST-CHE E)	KPERIMENI NO. 121			INEL POS	-CHE EXPE	KIMENI NO. 121	
		[11ME= 172.50 SEC		A STATE OF THE PARTY OF THE PAR		100	TIME= 172.50 SE	
LOOP PHESSURE; FCV TEMPERATUR LHP INLET ENTI- TEST SECTION: PRESSURE SAT TEMP MASS FLUD INLET QUI INLET ENTI- QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER	PE-3) RE(TE-FCV-1T) RE(TE-FCV-1T) RELITY REL	16.05 MPA 609.1 K 1.558E+06 J/KG 7.06 MPA 559.53 K 20.77 KG/SEC 191 1.558E+06 J/KG .856 M .0120 M/SEC .348 .0.0 W	:-M**2	LOOP PRESSIFCY TEMPERS LHP IMET I TEST SECTION PRESSIFUE SAT TO MASS INLET INLET QUENCH FROM ELEVA VELOC QUALT NET LHP PO	URE(PE-3) ATURE(TE-F) ON: URE EMP FLUX QUALITY ENTHALPY NT: TION LITY WER TO FLU	CV-17)	16.05 MPA 609.1 K 1.558E+06 J/KG 7.06 MPA 559.53 K 20.77 KG/SE .191 1.558E+06 J/KG .856 M .0120 M/SEC .348 0.0 W	C-M**2
VAROR TEMPERAL	WOE MEASUREMEN	NT LOCATION INFORMA XE XA	TION		ERATURE ME	ASUREMENT (LOCATION INFORP	ATION
				1.842	.985	925.2	732 .440	
	TEMP XI	LOCATION INFORMAT HEAT FLUX W/M**2	HEAT LOSS W/M**2	WALL TEMPER ELEVATION (M)	RATURE MEA TEMP (K)	SUREMENT L	OCATION INFORMA HEAT FLUX W/M**2	
.089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	570.9 .15 570.0 .26 5770.0 .26 5770.7 .26 5770.7 .26 5770.3 .26 565.8 .26 564.1 .21 574.8 .23 593.3 .24 601.7 .25 604.8 .26 617.8 .25 617.8 .25 617.8 .25 617.8 .25 617.8 .25 617.8 .25 617.8 .26 617.8 .26 617.8 .27 61	1.56£+04 1.62£+04 1.53£+04 1.53£+04 1.53£+04 1.59£+04 1.59£+04 1.59£+04 1.13 1.48£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.78£+04 1.3 1.31£+05 1.323£+04 1.31£+05 1.323£+04 1.31£+05 1.323£+04 1.31£+04	HEAT LOSS W/M**2	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.461 1.511 1.562 1.613 1.689 1.765 1.867 1.918 1.994 2.070	570.9 576.0 577.7 570.3 565.8 564.1 574.8 593.3 601.7 604.8 587.9 617.8 615.5 738.0 747.2 810.3 831.3 932.2 913.7 936.8 1007.8 1035.7 1041.5 1049.4 1060.2 1049.7 1025.2 1062.7 975.0 957.9	. 193 . 198 . 200 . 203 . 206 . 209 . 213 . 232 . 243 . 255 . 268 . 281 . 296 . 315 . 344 . 399 . 469 . 515 . 556 . 584 . 593 . 614 . 631 . 651 . 664 . 676 . 689 . 706 . 721 . 729 . 736 . 742 . 750 . 756	1.56E+04 1.62E+04 1.53E+04 1.59E+04 1.59E+04 1.49E+04 1.48E+04 1.65E+04 1.78E+04 2.01E+04 2.01E+04 2.79E+04 3.23E+04 6.21E+04 1.12E+05 6.16E+04 4.86E+04 4.86E+04 4.86E+04 4.09E+04 3.23E+04 2.97E+04 3.23E+04 2.97E+04 1.5E+04	

2.070

976.1

959.9

.724

. 729

1.06£+04

7.51E+03

POINT SERIAL NO. 1121.020 (TIME= 178.50 SEC) POINT SERIAL NO. 2121.020 (TIME= 178.50 SEC) LOOP PRESSURE(PE-3) 16.14 MPA LOOP PRESSURE(PE-3) 16.14 MPA 609.1 K FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 609.1 K LHP INLET ENTHALPY 1.558E+06 J/KG LHP INLET ENTHALPY 1.558E+06 J/KC TEST SECTION: TEST SECTION: PRESSURE 7.07 MPA PRESSURE 7.07 MPA 559.58 K SAT TEMP SAT TEMP 559.58 K 20.63 KG/SEC-M**2 20.63 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY . 191 . 191 INLET ENTHALPY 1.558E+06 J/KG INLET ENTHALPY 1.558E+06 J/KG QUENCH FRONT: QUENCH FRONT; ELEVATION .934 M ELEVATION .934 M .0139 M/SEC VELOCITY .0139 M/SEC VELOCITY . 388 QUALITY . 388 QUALITY NET LHP POWER TO FLUID 0.0 W NET THP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELIVATION DZQF IV XE XA ELEVATION DZQF IV XE XA (M) (M) (K) (M) (M) (K) 1.232 .298 665.6 .556 .460 1.537 .603 784.1 .644 .447 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION (M) M/M##2 W/M##2 (K) W/M##2 (M) (K) W/M##2 . 193 .013 570.5 . 193 1.55£+04 .013 570.5 1.55£+04 575.4 .051 575.4 . 198 1.60E+04 .051 . 198 1.60E+04 569.6 . 199 1.54E+04 569.6 .199 1.54E+04 .063 .063 089 577.2 .203 1.58E+04 .089 577.2 .203 1.58E+04 .114 .206 .114 569.9 .206 1.55E+04 569.9 1.55E+04 .209 . 140 565.6 1_49E+04 . 140 565.6 ,209 1.49E+04 . 165 .212 1.48E+04 .212 563.9 . 165 563.9 1.48E+04 .317 574.1 .317 .232 1.64E+04 574.1 .232 1.64E+04 .242 .242 . 394 591.9 .394 1.76E+04 591.9 1.76E+04 599.8 .254 .470 . 254 1.98E+04 .470 599.8 1.98E+04 .267 .546 602.5 .267 2.09E+04 -546 602.5 2.09E+04 1.95 8 + 04 .622 586.1 .279 .622 586.1 1.95E+04 .279 .294 .698 -698 619.1 2.62E+04 614.1 2.62E+04 .294 .775 .311 .775 .311 2.95E+04 611.4 611.4 2.95E+04 .851 663.0 .337 5.27E+04 .851 663.0 . 337 5.271+04 745.8 . 382 9.21E+04 .927 .927 745.8 . 382 9.21E+04 . 441 1.003 760.0 9.54E+04 1.003 760.0 441 9.54E+04 1.067 806.4 . 484 6.74E+04 . 484 1.067 806.4 6.74E+04 1.156 918.9 .527 5.04E+04 1.156 918.9 .527 5.04E+04 .556 1.232 916.4 . 556 4.29E+04 916.4 1.232 4.29E+04 1.257 901.8 -566 4.60E+04 1.257 901.8 .566 4.60E+04 -586 1.321 930.3 3.30E+04 1.321 930.3 .586 3.30E+04 -603 1.384 1001.9 3.25E+0h 1.384 1001.9 3.25E+04 .603 1.461 1029.5 .624 3.34E+04 1.461 1029.5 .624 3.34E+04 1036.0 3.05E+04 1.511 .637 1.511 1036.0 .637 3.05E+04 1033.0 -650 3.16E+04 1.562 1.562 1033.0 .650 3.16E+04 .663 1.613 1042.7 2.90E+64 1042.7 1.613 2.90E+04 -663 1.689 1056.1 -680 2.46E+04 1056.1 1.689 .680 2.46E+04 1.765 1058.1 .694 2.08E+04 -694 1.765 1058.1 2.08E+04 . 702 1.816 1048.3 1.75E+04 .702 1.816 1048.3 1.75E+04 1024.5 .709 1.867 1.64E+04 .709 1.867 1024.5 1.64E+04 .716 1.918 1002.4 1.49E+05 .716 1.918 1002.4 1.49E+04

1,994

2.070

976.1

959.9

.724

.729

1.06E+04

7.51E+03

.691

.699

.706 .714 .721

1.861+04

1.74E+04

1.59E+04 1.14E+04

8.39E+03

1046.4

1023.2

1001.8 977.2 962.2

1048.3

1024.5

1002.4

976.1 959.9

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1.867

1.994

.702 .709 .716 .724

.729

1.75E+04 1.64E+04

1.49E+04

1.06E+04 7.51E+03

	INIL PUS	-CHI EAFER	INCHI NO. 121				to with the				
POINT SERIAL	L NO. 312	21.020 [1	IME= 178.50 SEC		POINT SERIA	L NO. 11	21.030	(TIME	185.	50 SEC)	
LOOP PRESSUE	REIPE-31		16.14 MPA		LOOP PRESSU	RE(PE-3)			6.05	MPA	
FCV TEMPERAT	TURE (TE-EC	V-11)	609.1 K		FCV TEMPERA	TURE(IE-F	CV-11)		609.1	K	
LHP INLET EL	NTHALPY	1	.558E+06 J/KG		LHP INLET E	NTHALPY		1.558	E+06	J/KG	
TEST SECTION	N:				TEST SECTIO	株:					
PRESSU	RE .		7.07 MPA		PRESSU	RE		and the same	7.07	APA	
SAT IE	MP		559.58 K		SAT TE	MP		55	9.60	K	
MASS FI	LUX		20.63 KG/SEC	C-H**2	MASS F	LUX			0.48	KG/SEC-	Was 5
INIET	QUALITY		. 191		INLET	QUALITY		1 551	. 191	1700	
TNLET I	ENIHALPY		.338E+00 J/NG		OUT NOW FROM	LATHALET		1.330	ETUO .	1/10	
STEVAT	LON		93b N		FLEVAL	ION		1	.017	M	
VELOCI	TV.		.0139 M/SEC		VELOCI	TY			0110	M/SEC	
QUAL LT	Y		. 388		QUALIT	¥			.427		
NET LHP POW	ER TO FIU	D	0.0 W	C-M**2	NET LHP POW	ER TO FLU	IID		0.0	d .	
VAPOR TEMPER	RATURE ME	ASUREMENT L	OCATION INFORMA	ATION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCAT	ION I	NE ORMAT	ION
ELEVATION	DZQF	TV X	E XA		ELEVATION	DZQF	(K)	XE	XA		
441	(4)	100		NIION	(11)	£117	(10)				
1.842	.907	905.8 .7	06 .432		1.232	.214	609.0	.537	.475		
WALL TEMPERA	ATURE MEAS	SUREMENT LO	CATION INFORMAT	FION HEAT LOSS W/M**2	WALL TEMPER	ATURE MEA	SUREMENT	LOCATI	ON IN	FORMATI	ON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	X.E.		HEAT	LUX	HEAT LOSS
(M)	(K)		M/H**5	W/M**2	(M)	(×)			W/Mm	.2	M/W**5
.013	570.5	. 193	1.55£+04		.013	570.2	. 193		1.548	+O4	
.051	575.4	. 198	1.60E+04		.051	574.8	, 198		1.58E	104	
.063	569.6	. 199	1.58E+04		.063	509.2	, 199		1.53t	FOR	
.089	211.2	207	1.588 +04		,009	5/0.7 5/0.1	206		1 500	+04	
100	565 6	200	1 505 +04		100	565 h	200		1 605	+00	
165	563 0	212	1 486+04		165	563.7	212		1 485	+00	
317	574.1	232	1.646+04		.317	573.4	.232		1.62E	+00	
394	591.9	.242	1.76E+04		. 394	590.6	.242		1.73E	+04	
. 470	599.8	.254	1.985+04		.470	597.7	.254		1.95E	+04	
.546	602.5	.267	2.09E+04		.546	600.2	.266		2.03E	+04	
-622	586.1	.279	1.95E+04		. 622	584.4	.278		1.90E	+()4	
-698	614.1	.294	2.62E+04		.698	610.4	.292		2.48E	+04	
.775	611.4	. 311	2.95£+04		.775	607.6	. 308		2.72E	+04	
.851	663.0	. 337	5.271+04		.851	653.3	. 331		4.56E	+04	
.927	745.8	. 382	9.218+04		.927	695.8	.370		7.72E	+04	
1.003	760.0	.441	9.54E+04		1.003	696.7	.419		7.83E	+04	
1.067	806.9	.484	6.741+04		1.067	795.4	.457		6.78	104	
1.156	918.9	-527	5.041+04		1.156	896.5	.503		5.82E	+()/4	
1.232	916.4	.556	4.29E+04		1.232	902.3	.537		4.82E	+04	
1.257	901.8	.000	4.601.404		1.257	886.3	-547		5. 30E	+()4	
1.321	930.3	.380	3.301*04		1.321	922.1	-5/1		3.03t	104	
1.384	1001.9	636	3.235+04		1.304	994.5	.589		3.3/1	+04	
1.401	1029.5	637	3.345+04		1,461	1021.7	.610		3.401	+O1	
1.562	1030.0	650	3.05E+04		1.562	1029.0	620		3 345	+04	
1 613	1082.7	663	2 905+00		1 613	1020.2	.030		3 085	+Oh	
1 689	1056 1	680	2 865+04		1 689	1057.0	669		2 666	60%	
1 765	1058 1	60h	2 085+06		1 765	1055 6	.000		2 175	+04	
1.816	1008 3	702	1 755406		1 816	1005.4	.003		1 966	+04	

1.816

1.867

1.918

2.070

977.2

962.2

.721

INEL POST-CHE EXPERIMENT NO. 12' INEL POST-CHE EXPERIMENT NO. 121 TOINT SERIAL NO. 2121.030 (TIME= 185.50 SEC) POINT SERIAL NO. 3121.030 (TIME= 185.50 SEC) 16.05 MPA LOOP PRESSURE (PE-3) 16.05 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 609.1 K FCV TEMPERATURE (TE-FCV-1T) 609.1 K 1.558E+06 J/KG LHP INLET ENTHALPY 1.558E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 7.07 MPA PRESSURE 7.07 MPA 559.60 K SAT TEMP 559.60 K SAT TEMP 20.48 KG/SEC-M**2 20.48 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY . 191 . 191 INLET QUALITY 1.558E+06 J/KG INLET ENTHALPY 1.558E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: 1.017 M ELEVATION ELEVATION 1.017 M .0110 M/SEC VELOCITY .0110 M/SEC VELOCITY .427 QUALITY .427 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION IV XE XA ELEVATION DZQF IV XE XA ELEVATION DZQF (M) (M) (K) [M] (M) (K) .824 1.842 887.5 .695 .433 1.537 -519 738.5 .631 .462 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION XE ELEVATION TEMP ME HEAT FLUX HEAT LOSS W/M##2 W/M##2 W/M**2 (M) (K) (10) (K) W/M**2 .013 570.2 1.54E+04 570.2 . 193 1.54E+04 .013 . 198 .198 .051 574.8 1.58E+0h .051 574.8 1.58E+04 . 199 .199 .063 569.2 1.53E+0% .063 569.2 1.53E+04 .089 .203 576.7 1.57E+04 .203 1.57E+04 .089 576.7 1.54E+04 .114 569.4 .206 1.54E+04 .206 . 114 569.4 1.49E+04 . 140 565.4 .209 1.49E+04 . 140 565.4 .209 .212 1.48E+04 . 165 .212 1.48E+04 . 165 563.7 563.7 .317 573.4 .232 1.62E+04 1.62E+04 .317 573.4 .232 .242 .394 590.6 1.73 £ +04 1.73E+04 . 394 590.6 .242 .254 470 597.7 1.95E+04 .254 1.95E+04 470 597.7 2.03E+09 .266 .546 600.2 .266 .546 600.2 2.03E+04 .622 584.4 .278 1.90E+04 .622 584.4 .278 1.90E+04 .698 610.4 .292 2.48E+04 .292 2.48E+04 610.4 .698 .308 2.72E+04 .775 607.6 .308 2.72E+04 607.6 .775 4.56E+04 .331 .851 653.3 .331 4.56E+04 -851 653.3 .370 7.72E+04 .927 695.8 7.72E+04 .927 695.8 .370 7.83E+04 1,003 696.7 .419 7.83E+04 1.003 .419 696.7 1.067 795.4 6.78E+04 6.78E+04 .457 1.067 795.4 .457 .503 5.82E+04 1.156 896.5 1.156 896.5 .503 5.82E+04 902.3 .537 4.82E+04 -537 4.82E+04 1.232 1.232 902.3 5.30E+04 886.3 1.257 886.3 .547 5.30E+04 .547 1.257 1.321 922.1 .571 3.63E+04 1.321 922.1 .571 3.63E+04 1.384 994.5 .589 3.37E+04 994.5 .589 3.37E+04 1.384 1.461 1021.7 .610 3.46E+04 1.461 1021.7 .610 3.46E+04 .624 3.16E+04 1.511 1029.0 .624 3.16E+04 1.511 1029.0 1.562 1026.2 .638 3.24E+04 1.562 1026.2 .638 3.24E+04 1.613 1037.0 .651 2.98E+04 1.613 1037.0 .651 2.98E+04 1052.1 .668 2.55E+04 1.689 1052.1 .668 2.55E+04 1.689 1.765 1055.4 .683 2.17E+04 1.765 1055.4 .683 2.17E+04 1.816 1046.4 .691 1.86E+04 1.816 1046.4 .691 1.86E+04 1023.2 1.74E+04 1.867 1023.2 .699 1.74E+04 1.867 .699 . 706 .706 1.59E+04 1.918 1001.8 1.59E+04 1.918 1001.8 .714 .714

1.994

2.070

977.2

962.2

.721

1.14E+04 .

8.39E+03

1.14E+04

8.39E+03

.715

1.22E+04

9.11E+03

978.4

964.7

1.994

2.070

```
POINT SERIAL NO. 2121.040 [TIME= 189.50 SEC]
POINT SERIAL NO. 1121.041 (TIME= 189.50 SEC)
(INFERRED VAPOR TEMP)
(OOP PRESSURE(PE-3)
                                16.04 MPA
                                                                    LOOP PRESSURE (PE-3)
                                                                                                     16.04 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                609.2 K
                                                                    FCV TEMPERATURE (TE-FCV-1T)
                                                                                                     609.2 K
                           1.558E+06 J/KG
                                                                    LHP INLET ENTHALPY
                                                                                                 1.558E+06 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                                                                    TEST SECTION:
                                7.07 MPA
                                                                        PRESSURE
                                                                                                      7.07 MPA
    PRESSURE
    SAT TEMP
                              559.64 K
                                                                        SAT TEMP
                                                                                                    559.64 K
                             20.62 KG/SEC-M**2
                                                                                                 20.62 KG/SEC-M**2
    MASS FLUX
                                                                        MASS FLUX
    INLET QUALITY
                                                                        INLET QUALITY
                                                                                                      .191
                                 . 191
                                                                        INLET ENTHALPY
                                                                                                 1.558E+06 J/KG
    INLET ENTHALPY
                            1.558E+06 J/KG
                                                                    QUENCH FRONT:
QUENCH FRONT:
    ELEVATION
                                1.064 M
                                                                        ELEVATION
                                                                                                     1.064 M
    VELOCITY
                                .0122 M/SEC
                                                                         VELOCITY
                                                                                                     .0122 M/SEC
    QUALITY
                                , 428
                                                                        QUALITY
                                                                                                     .428
                                                                    NET LHP POWER TO FLUID
                                                                                                      0.0 W
NET LHP POWER TO FLUID
                                 0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                    ELEVATION DZQF
                                                                                        IV
                                                                                                XE XA
ELEVATION DZQF
                    TV
                            XE
                                XA
                                                                      (M)
                                                                                (M)
                                                                                         (K)
 (M;
            (M)
                    (K)
                                                                                .472
                                                                                        772.4 .621 .453
                                                                     1.537
            .168
1.232
                   600.0 .516 .466
                                                                    WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                    ELEVATION
                                                                                TEMP XE
                                                                                                      HEAT FLUX
                                                                                                                    HEAT LOSS
ELEVATION
            TEMP
                                HEAT FLUX
                                            HEAT LOSS
                                                                                                      W/M##2
                                                                                                                     W/M**2
                    XE
                                                                     (M)
                                                                                  (K)
                                 W/M**2
 (M)
             (K)
                                               W/M**2
                                                                                            . 193
                                                                                                      1.55E+04
                                                                      .013
                                                                                  569.7
 .013
             569.7
                                 1.55E+04
                                                                                  574.1
                                                                                            . 198
                                                                                                      1.56E+04
                       . 193
                                                                      .051
                                                                                            .200
                       .198
                                 1.56E+04
                                                                                  568.8
                                                                                                      1.51E+04
  .051
             574.1
                                                                      .063
 .063
                                                                      .089
                                                                                                      1.55E+04
                                 1.51E+04
                                                                                  576.1
                                                                                            .203
             568.8
                       .200
                                                                      . 114
                                 1.55E+04
                                                                                  569.0
                                                                                            .206
                                                                                                      1.52E+04
  .089
             576.1
                       .203
 . 114
                                                                                            .209
             569.0
                       .206
                                 1.52E+04
                                                                      . 140
                                                                                  565.1
                                                                                                      1.48E+04
                              1.48E+04
                                                                                            .212
                                                                                  563.5
                                                                                                      1.47E+04
 . 140
             565.1
                       .209
                                                                      . 165
 .165
                       .212
                                1.471+04
                                                                     .317
                                                                                  572.5
                                                                                            .232
                                                                                                      1.59E+04
             563.5
 .317
                       .232
                                                                     .394
                                                                                  589.1
                                                                                            .242
                                                                                                      1.73E+04
             572.5
                                1.59E+04
                       .242
                              1.73E+09
  . 394
             589.1
                                                                      .470
                                                                                  595.2
                                                                                            .253
                                                                                                      1.90E+04
                              1.908+04
                       .253
  .470
             595.2
                                                                     .546
                                                                                  597.4
                                                                                            .265
                                                                                                      1.96E+04
                                1.96E+04
                                                                      .622
                                                                                  582.3
                                                                                            .277
                                                                                                      1.82E+04
  .546
             597.4
                       .265
                              1.82E+04
                                                                                 605.8
                       .277
                                                                                                      2.26E+04
             582.3
                                                                      .698
                                                                                            .290
  .622
                       .290
                                                                      .775
 -698
                                                                                 602.3
                                                                                            . 304
             605.8
                              2.26E+04
                                                                                                      2.31E+04
                       . 304
 .775
                                                                                            .322
             602.3
                                 2.31E+04
                                                                      .851
                                                                                 633.0
                                                                                                      3.23E+04
                       . 322
  .851
             633.0
                               3.23E+04
                                                                      .927
                                                                                 662.4
                                                                                            . 352
                                                                                                      6-44E+04
                       .352
                               6.44E+04
                                                                                                    6.84E+04
 .927
                                                                     1.003
                                                                                 617.8
                                                                                            .394
             662.4
                               6.84E+04
                                                                     1.067
 1.003
             617.8
                                                                                  751.1
                                                                                            .429
                                                                                                     6.61E+04
                       . 394
                               6.61E+04
                                                                                            .477
 1.067
             751.1
                       .429
                                                                     1.156
                                                                                 868.7
                                                                                                     6.46E+04
 1.156
             868.7
                       .477
                                6.46E+04
                                                                     1.232
                                                                                  881.4
                                                                                            .516
                                                                                                      5.84E+04
                       .516
 1,232
             881.4
                                5.84E+04
                                                                     1.257
                                                                                  866.0
                                                                                            .529
                                                                                                      6.77E+04
                                 6.77E+04
 1,257
             866.0
                       .529
                                                                                 911.6
                                                                                            .557
                                                                                                     3.96E+04
                                                                     1.321
1.321
                       .557
                               3.96E+04
             911.6
                                                                     1.384
                                                                                 985.9
                                                                                                      3.57E+04
                                                                                            .577
                                                                                            -600
 1.384
             985.9
                       .577
                                 3.57E+04
                                                                     1.461
                                                                                 1012.9
                                                                                                     3.65E+04
                                                                                            .614
 1.461
            1012.9
                       .600
                             3.651+04
                                                                     1,511
                                                                                 1021.1
                                                                                                      3.32E+04
 1.511
            1021.1
                       .614
                                 3.32E+04
                                                                     1.562
                                                                                 1018.4
                                                                                            .628
                                                                                                      3.37E+04
            1018.4
                               3.37E+04
                                                                                 1030.3
 1.562
                       .628
                                                                     1.613
                                                                                            .642
                                                                                                      3.10E+04
                               3.10E+04
 1.613
            1030.3
                       .642
                                                                     1.689
                                                                                 1047.3
                                                                                            .660
                                                                                                      2.63E+04
                       .660
                                                                                            .675
 1.689
            1047.3
                                 2.63E+04
                                                                     1.765
                                                                                 1052.2
                                                                                                      2.27E+04
 1.765
            1052.2
                       .675
                                 2.27E+04
                                                                                 1044.1
                                                                     1.816
                                                                                            . 684
                                                                                                      1.95E+04
 1.816
            1044.1
                       .684
                                 1.95E+04
                                                                     1.867
                                                                                 1021.8
                                                                                            .692
                                                                                                      1.83E+04
 1.867
            1021.8
                       .692
                                 1.83E+04
                                                                     1.918
                                                                                 1001.0
                                                                                            .700
                                                                                                      1.68E+04
                       .700
 1.918
                                                                                            . 709
            1001.0
                                 1.68E+04
                                                                     1.994
                                                                                 978.4
                                                                                                      1.22E+04
```

2.070

964.7

.715

9.11E+03

9.11E+03

```
POINT SERIAL NO. 3121.040 (TIME= 189.50 SEC)
                                                                        POINT SERIAL NO. 1121.051 (TIME= 197.50 SEC)
                                                                        (INFERRED VAPOR TEMP)
LOOP PRESSURE ( PE-3)
                                  16.04 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           16.16 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                  609.2 K
                                                                        FCV TEMPERATURE (TE-/CV-1T)
                                                                                                           609.2 K
LHP INLET ENTHALPY
                              1.558E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                      1.558E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                   7.07 MPA
                                                                             PRESSURE
                                                                                                            7.08 MPA
                                 559.64 K
     SAT TEMP
                                                                             SAT TEMP
                                                                                                          559.69 K
     MASS FLUX
                                  20.62 KG/SEC-M**2
                                                                             MASS FLUX
                                                                                                           20.55 KG/SEC-M**2
     INLET QUALITY
                                   . 191
                                                                             INLET QUALITY
                                                                                                            .191
                              1.558E+06 J/KG
     INLET ENTHALPY
                                                                             INLET ENTHALPY
                                                                                                       1.558E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
     ELEVATION
                                  1.064 M
                                                                             ELEVATION
                                                                                                           1.164 M
     VELOCITY
                                  .0122 M/SEC
                                                                             AFFOC11A
                                                                                                           .0127 M/SEC
     QUZ.LIY
                                   .428
                                                                             QUALITY
                                                                                                            . 455
NET LHP POWER TO FLUID
                                   0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                    TV
                              XE
                                   XA
                                                                        (INTERRED VAPOR TEMP)
  (M)
             (M)
                      (K)
                                                                        ELEVATION
                                                                                     DZQF
                                                                                              IV
                                                                                                       XE
                                                                                                             XA
                                                                          (M)
                                                                                     (M)
                                                                                               (K)
 1.842
             .777
                   900.9
                             .688 .432
                                                                         1.232
                                                                                                      .494 .472
                                                                                     .068
                                                                                             577.0
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION.
              TEMP
                                  HEAT FLUX
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                       XE
                                                 HEAT LOSS
                                    W/M##2
 (M)
              (K)
                                                  W/M**2
                                                                        ELEVATION
                                                                                      TEMP
                                                                                                 XE
                                                                                                          HEAT FLUX
                                                                                                                          HEAT LOSS
                                                                          (M)
                                                                                       (K)
                                                                                                             W/M**2
                                                                                                                           W/M##2
                        .193
  .013
              569.7
                                  1.55E+04
                        . 198
  .051
              574.1
                                 1.56E+04
                                                                          .013
                                                                                      569.3
                                                                                                  . 193
                                                                                                            1.531+04
  .063
              568.8
                         .200
                                  1.51E+04
                                                                          .051
                                                                                      573.4
                                                                                                 . 198
                                                                                                            1.56E+04
  .089
              576.1
                         .203
                                  1.55E+04
                                                                          .063
                                                                                      568.4
                                                                                                 . 199
                                                                                                            1.51E+04
  .114
                         .206
              569.0
                                  1.52E+04
                                                                          .089
                                                                                      575.4
                                                                                                  .203
                                                                                                            1.55E+04
  .140
              565.1
                         .209
                                  1.48E+04
                                                                          .114
                                                                                      568.4
                                                                                                  .206
                                                                                                            1.51E+04
                                                                          -140
  . 165
              563.5
                         .212
                                   1.47E+04
                                                                                      564.9
                                                                                                  .209
                                                                                                            1.48E+04
  .317
              572.5
                         .232
                                   1.59E+04
                                                                          . 165
                                                                                                 .212
                                                                                      563.4
                                                                                                            1.48E+04
  . 394
                         .242
              589.1
                                   1.73E+04
                                                                                                 .231
                                                                          .317
                                                                                      571.6
                                                                                                            1.58E+04
                         .253
  . 470
              595.2
                                   1.90E+04
                                                                          . 394
                                                                                      587.4
                                                                                                  .242
                                                                                                            1.72E+04
  .546
              597.4
                         .265
                                   1.96E+04
                                                                          .470
                                                                                      592.7
                                                                                                 . 253
                                                                                                            1.86E+04
  .622
                         .277
                                                                                      594.6
              582.3
                                   1.82E+04
                                                                          .546
                                                                                                 .265
                                                                                                            1.89E+04
  .698
              605.8
                        .290
                                                                          .622
                                   2.26E+04
                                                                                      580.2
                                                                                                 .276
                                                                                                            1.75E+04
                        .304
  .775
              602.3
                                   2.31E+04
                                                                          .698
                                                                                      601.4
                                                                                                 .289
                                                                                                           2.09E+04
                        .322
  .851
              633.0
                                   3.23E+04
                                                                          .775
                                                                                      597.8
                                                                                                 . 302
                                                                                                            2.08E+04
  .927
              662.4
                         .352
                                   6.44E+04
                                                                          .851
                                                                                      625.3
                                                                                                 .316
                                                                                                            2.44E+04
 1.003
              617.8
                         . 394
                                   6.84E+04
                                                                          .927
                                                                                      629.2
                                                                                                 . 334
                                                                                                            3.40E+04
 1.067
              751.1
                         .429
                                   6.61E+04
                                                                         1.003
                                                                                      628.4
                                                                                                 . 363
                                                                                                           5.77E+04
 1.156
              868.7
                         .477
                                   6.46E+04
                                                                                                 .397
                                                                         1.067
                                                                                      714.9
                                                                                                            7.05E+04
 1.232
              881.4
                         .516
                                   5.84E+04
                                                                         1.156
                                                                                      819.8
                                                                                                  . 450
                                                                                                            7.37E+04
 1.257
              866.0
                         .529
                                   6.77E+04
                                                                         1.232
                                                                                      854.0
                                                                                                 . 494
                                                                                                            6.70E+04
 1.321
             911.6
                         .557
                                   3.96E+04
                                                                         1.257
                                                                                      847.0
                                                                                                  .510
                                                                                                            7.84E+04
1.384
              985.9
                        .577
                                   3.57E+04
                                                                         1.321
                                                                                      902.0
                                                                                                  .542
                                                                                                            4.29E+04
 1.460
             1012.9
                         .600
                                  3.65E+04
                                                                         1.384
                                                                                      977.5
                                                                                                  .563
                                                                                                            3.75E+04
                         .614
 1.511
             1021.1
                                   3.32E+04
                                                                         1.460
                                                                                     1004.1
                                                                                                  .587
                                                                                                            3.83E+04
 1.562
             1018.4
                         .628
                                   3.37E+04
                                                                         1.511
                                                                                     1013.3
                                                                                                 .602
                                                                                                            3.48E+04
 1.613
             1030.3
                         .642
                                   3.10E+04
                                                                         1.562
                                                                                     1010.6
                                                                                                 .617
                                                                                                            3.49E+04
 1.689
             1047.3
                        .660
                                   2.63E+04
                                                                         1.613
                                                                                     1023.8
                                                                                                 .631
                                                                                                            3.23E+04
                        .675
 1.765
             1052.2
                                   2.27E+04
                                                                         1.689
                                                                                     1042.6
                                                                                                 .650
                                                                                                            2.76E+04
                        .684
 1.816
             1044.1
                                   1.95E+04
                                                                         1.765
                                                                                     1049.0
                                                                                                 .666
                                                                                                           2.39E+04
                        .692
 1.867
             1021.8
                                   1.83E+04
                                                                                                 .675
                                                                         1.816
                                                                                     1041.9
                                                                                                           2.09E+04
                        .700
1.918
             1001.0
                                   1.68E+04
                                                                         1.867
                                                                                     1020.5
                                                                                                 .684
                                                                                                           1.94E+04
             978.4
 1.994
                        .709
                                   1.22E+04
                                                                         1.918
                                                                                     1000.4
                                                                                                 .692
                                                                                                           1.79E+64
2.070
              964.7
                         .715
```

1.994

2.070

979.6

967.2

.702

.709

1.328+04

1.01E+04

	INEL POS	T-CHF EXP	ERIMENT N	0. 121			INEL POS	ST-CHF EXP	PERIME	NI NO.	121	
POINT SERIA	L NO. 21	21.050	(TIME= 19	7.50 SEC	:)	POINT SERI	AL NO. 31	121.050	(TIME	= 197.	50 SEC)
LOOP PRESSU	RECPE-33		16.1	6 MPA		LOOP PRESS	URE(PE-3)			16.16	MPA	
FCV TEMPERA	TURE (TE-F	CV-11)	609.	2 K		FCV TEMPER	ATURE (TE-F	CV-11)		609.2	K	
LHP INLET E	NTHALPY		1.558E+0	6 J/KG		LHP INLET	ENTHALPY		1.55	8E+06	J/KG	
TEST SECTION	N:					TEST SECTI	ON:					
PRESSU	RE		7.0	8 MPA		PRESS	URE			7.08	MPA	
SAT TE	MP		559.6	9 K		SAI 1	EMP		5	59.69	K	
MASS F	FBX		20.5	5 KG/SEC	-M**5	MASS	FLUX			20.55	KG/SEC	-M**5
INLET	QUALITY		. 19	1		INLET	QUALITY			. 191	A . P. S. S. S.	
INLET	ENTHALPY		1.558E+0	6 J/KG		INLET	ENTHALPY		1.55	BE+UD	J/KG	
QUENCH FROM	100		7.76			QUENCH FRO	TION			1 16h	м	
ELEVAL	TV		012	7 M/SEC		VELOC	ITY			0127	M/SEC	
ODAL LT	× .		1016	5		QUALI	IV			.455	112 50 60	
NET LHP POW	ER TO FLU	10	0.	0 W		NET LHP PO	WER TO FLU	IID		0.0	W	
WARDE TEMPS	DATURE ME	ASSISTMENT	LOCATION	INFORMA	-M**5	VAPOR TEMP	FRATURE ME	ASUREMENT	LOCA	TION I	NEORMA	TION
FLEVATION	DZOF	IV	XF XA	EN ONE	11 1 5011	ELEVATION	DZQF	IV	XE	XA		
(M)	(M)	(K)	200			(M)	(M)	(K)				
1.537	. 373	710.1	.609 .46	2	STION	1.842	.677	872.1	.680	.432		
WALL TEMPER	ATURE MEA	SUREMENT	LOCATION	INFORMAT	HEAT LOSS W/M**2	WALL TEMPE	RATURE MEA	SUREMENT	LOCAT	ION IN	FORMAT	ION
ELEVATION	TEMP	XE	HEA	T FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT	FLUX	HEAT LOSS
(M)	(K)		W/	N**5	W/M**2	(M)	(K)			W/M*	*2	M/W"#5
.013	569.3	. 193	1.5	3E+04		.013	569.3	. 193 . 198 . 199 . 203 . 206 . 209 . 212 . 231 . 242 . 253	3	1.53E	+04	
.051	573.4	. 198	1.5	6E+04		.051	573.4	. 198	3	1.56€	+04 -	
.063	568.4	. 199	1.5	1E+04		.063	568.4	, 199	,	1.51E	+04	
.089	575.4	.203	1.5	5E+04		.089	575.4	.203	\$	1.55E	+04	
.114	568.4	. 206	1.5	1E+04		. 114	568.4	.206	5	1.51E	+()4	
. 140	564.9	,209	1.4	8E+04		. 140	564.9	, 209)	1.48£	+()4	
.165	563.4	.212	1.4	81+04		. 165	563.4	.212		1.48E	+04	
.317	571.6	.231	1.3	81 +04		. 317	507 h	200		1.700	+04	
. 394	587.4	. 242	1.1	2E+04		1,394	507.4	25.7		1 965	+04 +0h	
.470	505 6	265	1.0	DE +04		546	594 6	265		1 891	+04	
.546	580.2	276	1.0	5E+0h		622	580.2	276		1.89E 1.75E 2.09E	+0h	
.698	601.4	289	2.0	QE+04		698	601.4	.289)	2.09E	+04	
.775	597.8	302	2.0	8E+04		.775	597.8	. 302	>	2.08E 2.44E 3.40E	+04	
.851	625.3	. 316	2.4	4E+04		.851	625.3	. 316	5	2.44E	+04	
.927	629.2	. 334	3.4	0E+04		.927	629.2	. 334	1	3.40E	+04	
1.003	628.4	. 363	5.7	7E+04		1.003	628.4	. 363	3	5.77E	+04	
1.067	714.9	. 397	7.0	5E+04		1.067	714.9	. 397	7	7.05E	+04	
1.156	819.8	.450	7.3	7E+04		1.156	819.8	.450)	7.37E	+04	
1.232	854.0	. 494	6.7	0E+04		1.232	854.0	,494		6.70E	+04	
1.257	847.0	.510	7.8	4E+04		1.257	847.0	.510	,	7.84E	+()4	
1,321	902.0	.542	4.2	9E+04		1.321	902.0	. 542		4.29E	+04	
1.384	977.5	.563	3.7	DE+04		1.384	9//.5	. 20:	3	3.721	+04	
1.460	1004.1	.387	3.6	35.404		1.400	1004.1	. 201	3	3 . C3E	+04	
1.511	1013.3	. 602	3.4	QE +04		1.562	1010.5	. 602	7	3 405	+04	
1.562	1023 8	631	3.9	3E+0h		1.613	1023.8	631	1	3 235	+04	
1.689	1062.6	650	2.7	6E+04		1.689	1002.6	656)	2.765	+04	
1.765	1042.0	666	2 3	9E+04		1.765	1049 0	-664	5	2.39F	+04	
1 016	1041.9	.675	2.0	9E+04		1.816	1041.9	.675	5	2.09E	+04	
1.816	1020.5	. 684	1.9	4E+04		1.867	1020.5	,684		1.94E	+04	
1.816			7.5.0							* *****		
1.867	1000.4	- 692	1.7	9E+04		1.918	1000.4	. 692	6	1.79E	+04	
1.867 1.918 1.994	1000.4	.692	1.7	9E+04 2E+04	HEAT LOSS W/M**2	1.918	629.3 629.2 628.4 714.9 819.8 854.0 902.0 977.5 1004.1 1013.3 1010.6 1023.8 1042.6 1049.0 1041.9 102.5 1000.4 979.6 967.2	. 692	2	1.79E	+04	

INEL POST-CHE EXPERIMENT NO. 121

POINT SERIAL	NO. 212	1.060	(TIME= 201.50 SEC	C)	POINT SERIA	L NO. 3	121.060	(TIME= 2	01.50 SE	C)
LOOP PRESSUR	RE(PE-3)		16.12 MPA		LOOP PRESSU	RE(PE-3)		16.	12 MPA	
FCV TEMPERAT	TURE (TE-FC	V-1T)	609.2 K		FCV TEMPERA	TURE (TE-	FCV-1T)	609	.2 K	
LHP INLET EN	THALPY		1.559E+06 J/XG		LHP INLET E	NTHALPY		1.559E+	06 J/KG	
TEST SECTION	1:		CONTRACTOR OF THE CO.		TEST SECTIO	N:				
PRESSUR	E.		7.07 MPA		PRESSU	RE		7	O7 MPA	
SAT TEM	ap .		550 6b K		SAT TE	MP		550	6h K	
MASS FI	HW		20 83 80/55/	-M##2	MASS E	LUV		20	ha MC/CE	C-M##2
MASS FE	MINE KEY		20.43 NU/SEC	P-M5	MASS F	CHALLEY		20.	43 KG/SE	C-M
THEET C	WEIGHT DV		1 5505+06 1/VC		INCET	CHIMALDY		2 55054	91	
DUENCH EDOM	RITIALFT		1.3391 +00 3/80		OHENCH FROM	ENTHALFT		1.55964	00 J/KG	
QUE TOUT FRUITE	734		1 221 M		QUENCII FROM	LON			O. S. S.	
LLEVAL!	COM		0166 9/000		FLLVAI	TV		1.6	CI M	
AFFORTI			TOTO WASEC		VELOCI	1.5		.01	00 M/SEC	
QUALITY			.4/2		QUALIT	*		-4	12	
NE I LHP POWE	K 10 FLUI		0.0 W		LOOP PRESSU FCV IEMPERA LIP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCIL FRON ELEVAT VELOCI QUALIT NET LIP POW	ER TO FLI	UID	0	.0 W	
VAPOR TEMPER	RATURE MEA	SUREMENT	LOCATION INFORMA	AIION	VAPOR TEMPE	RATURE ME	EASUREMENT	LOCATIO	N INFORM	ATION
ELEVATION	UZQF	14	AL XA		ELEVATION	OZQF	10	XE X	A	
(M)	(M)	(4)	XE XA		(M)	(M)	(K)			
1.537	.315	696.6	.595 .459		VAPOR TEMPE ELEVATION (M)	.620	855.9	.665 .4	27	
HALL TEMPERA	TURE MEAS	UREMENT I	LOCATION INFORMAT	TION	WALL TEMPER ELEVATION (M)	ATURE ME	ASUREMENT	LOCATION	INFORMA	TION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOS
(M)	(K)		M/W**5	W/M**2	(M)	(K)		W	/M**2	W/M**2
.013	569.1	. 193	1.52E+04		.013	569.1	. 193	1.	52E+04	
.051	573.1	. 198	1.54E+04		.051	- 573.1	. 198	1.	54E+04	
.063	568.2	. 199	1.51E+04		.063	568.2	, 199	1.	51E+04	
.089	575.1	.203	1.54E+04		.089	575.1	.203	1.	54E+04	
.114	568.2	.206	1.50E+04		. 114	568.2	.206	1.	50E+04	
. 140	564.8	.209	1.48E+04		. 140	564.8	. 209	1.	48E+04	
165	563.3	.212	1.475+04		. 165	563.3	.212	1.	47E+04	
. 317	571.2	.231	1.57E+04		.317	571.2	-231	1.	57E+04	
. 394	586.6	.241	1.70E+04		. 394	586.6	241	1.	70E+04	
. 470	591.6	.252	1.84E+04		.470	591.6	. 252	1.	84F+04	
546	593.4	.264	1.86E+04		.546	593.4	264	1	861+04	
622	579.4	275	1.73E+04		622	579 h	275	1	73F+0h	
698	599.7	.287	2 03E+0h		698	599 7	287	2 1	035+04	
775	596.1	. 300	2.02E+0h		775	596.1	300	2	02F+0h	
.851	622.7	314	2.35F+0h		851	622 7	334	2	35E+04	
.927	623.9	330	2.87F+04		927	623 0	330	2	87E+04	
1.003	603.6	351	4 00F+0h		1.003	603.6	351	in it	DOE+Oh	
1.067	695.3	380	7.11E+0h		1.067	695 3	380	7	11E+0h	
1.156	757 3	633	7 255+0h		1 156	75.7 3	622	7	25.E+04	
1 232	808.0	870	7 055+04		1 232	909 0	. 433	1.	055404	
1 257	70h 8	429	7 735 400		1 267	200.0	.479	1.1	775+04	
7 4 50 25 4	806 6	526	h 205+0h		1,231	794.8	.494	1.	736 +04	
1 221	070.0	. 320	3 805 104		1.321	0.00	.526	4.	39E+04	
1.321	0.72 0	- 246	3 . 7545 7 7 1344		1.384	912.9	. 548	3.1	54E+04	
1.321	972.9	E 700	2 005 100		1 5 5 5	ann t				
1.321 1.384 1.460	972.9 999.4	.572	3.898+04		1.460	999.4	.572	3.1	89E+04	
1.321 1.384 1.460 1.511	972.9 999.4 1009.1	.572	3.89E+04 3.52E+04		1.460	999.4 1009.1	.572	3.	89E+04 52E+04	
1.321 1.384 1.460 1.511 1.562	972.9 999.4 1009.1 1006.5	.572 .588 .602	3.89E+04 3.52E+04 3.50E+04		1.460 1.511 1.562	999.4 1009.1 1006.5	.572 .588 .602	3.	89E+04 52E+04 50E+04	
1,321 1,384 1,460 1,511 1,562 1,613	972.9 999.4 1009.1 1006.5 1020.3	.572 .588 .602 .616	3.89E+04 3.52E+04 3.50E+04 3.19E+04		1.460 1.511 1.562 1.613	999.4 1009.1 1006.5 1020.3	.572 .588 .602 .616	3.	89E+04 52E+04 50E+04 19E+04	
1.321 1.384 1.460 1.511 1.562 1.613 1.689	972.9 999.4 1009.1 1006.5 1020.3 1040.1	.572 .588 .602 .616 .635	3.89E+04 3.52E+04 3.50E+04 3.19E+04 2.72E+04		1,460 1,511 1,562 1,613 1,689	999.4 1009.1 1006.5 1020.3 1040.1	.572 .588 .602 .616	3. 3. 3. 2.	89E+04 52E+04 50E+04 19E+04 72E+04	
1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765	972.9 999.4 1009.1 1006.5 1020.3 1040.1 1047.2	.572 .588 .602 .616 .635	3.89£+04 3.52£+04 3.50£+04 3.19£+04 2.72£+04 2.38£+04		1.460 1.511 1.562 1.613 1.689 1.765	999.4 1009.1 1006.5 1020.3 1040.1 1047.2	.572 .588 .602 .616 .635	3. 3. 3. 2.	89E+04 52E+04 50E+04 19E+04 72E+04 38E+04	
1,321 1,384 1,460 1,511 1,562 1,613 1,689 1,765 1,816	972.9 999.4 1009.1 1006.5 1020.3 1040.1 1047.2 1040.6	.572 .588 .602 .616 .635 .651	3.89E+04 3.52E+04 3.50E+04 3.19E+04 2.72E+04 2.38E+04 2.08E+04		1.460 1.511 1.562 1.613 1.689 1.765 1.816	999.4 1009.1 1006.5 1020.3 1040.1 1047.2 1040.6	.572 .588 .602 .616 .635 .651	3. 3. 3. 2. 2.	89E+04 52E+04 50E+04 19E+04 72E+04 38E+04	
1, 321 1, 384 1, 460 1, 511 1, 562 1, 613 1, 689 1, 765 1, 816 1, 867	972.9 999.4 1009.1 1006.5 1020.3 1040.1 1947.2 1040.6 1019.6	.572 .588 .602 .616 .635 .651 .660	3.89£+04 3.52£+04 3.50£+04 3.19£+04 2.72£+04 2.38£+04 2.08£+04		1.460 1.511 1.562 1.613 1.689 1.765 1.816	999.4 1009.1 1006.5 1020.3 1040.1 1047.2 1040.6 1019.6	.572 .588 .602 .616 .635 .651	3. 3. 3. 2. 2.	89E+04 52E+04 50E+04 19E+04 72E+04 38E+04 08E+04	
1. 321 1. 384 1. 460 1. 511 1. 562 1. 613 1. 689 1. 765 1. 816 1. 867 1. 918	972.9 999.4 1009.1 1006.5 1020.3 1040.1 1947.2 1040.6 1019.6 999.8	.572 .588 .602 .616 .635 .651 .660 .669	3.89E+04 3.52E+04 3.50E+04 3.19E+04 2.72E+04 2.38E+04 2.08E+04 1.96E+04 1.79E+04		1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867	999.4 1009.1 1006.5 1020.3 1040.1 1047.2 1040.6 1019.6 999.8	.572 .588 .602 .616 .635 .651 .660	3. 3. 3. 2. 2. 2.	89E +04 52E +04 50E +04 19E +04 72E +04 38E +04 08E +04 96E +04 79E +04	
1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994	972.9 999.4 1009.1 1006.5 1020.3 1040.1 1047.2 1040.6 1019.6 999.8 980.0	.572 .588 .602 .616 .635 .651 .660 .669 .677	3.89£+04 3.52£+04 3.50£+04 3.19£+04 2.72£+04 2.38£+04 2.08£+04 1.96£+04 1.79£+04	W/M**2	1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	999.4 1009.1 1006.5 1020.3 1040.1 1047.2 1040.6 1019.6 999.8 980.0	.572 .588 .602 .616 .635 .651 .660 .669	3. 3. 3. 2. 2. 2. 1.	89E +04 52E +04 52E +04 19E +04 72E +04 38E +04 08E +04 06E +04 79E +04 34E +04	

POINT SER!A										
INFERRED V	I NO. 112	5.011	TIME - 100.50 SEC		POINT SERIA	AL NO. 21	25.011	(TIME=	100.50 SEC)
	APOR TEMP				CINFERRED V	APOR TEMP	1			
OP PRESSU	RELPE-31		16.15 MPA		LOOP PRESSI	BELPE-31		1	6.15 MPA	
V TEMPERA	CHURE (TE-FO	V-111	612.1 K		FCV TEMPERA	ATUREL TE-F	CV-111	6	12.1 K	
PINIFIE	NTHAL PY	and the state of	1 581F+06 1/NG		THE INTEL	NTHAL PY		1.581	E+06 J/KG	
ST SECTIO	N-				TEST SECTIO	ON-			37 110	
PRESCH	10.5		2 02 MR4		ppress	ID C			7 07 MPA	
5 A T T C	MO		SED SO V		FAE 356	CMP		5.6	0.58 K	
MACCO C	2.459		209.28 K	MRES	SAT II	CT HOW		33	0 81 KC/SEC	-M##2
MASS 1	Lux		30.81 KG/SEC	-M==5	MASS I	FEUX		- 3	O. DI KO/SEL	-M5
INCET	QUALITY		.206		INLEI	QUALTTY			.206	
INLET	ENTHALPY		1.581E+06 J/KG		INLEI	ENTHALPY		1.581	E+06 J/KG	
ENCH FROM	H;				QUENCH FROM	NI:				
ELEVAI	ION		.179 M		ELEVA	LION			.1/9 M	
ALTOCI	IY		. 1082 M/SEC		AEFOCI	ITY			1082 M/SEC	
QUALIT	¥		.277		QUALIT	IA			.277	
I LHP POW	ER 10 FLUI	D	0.0 W		NET LHP POV	HER TO FLU	10		0.0 W	
POR TEMPE	RATURE MEA	SUREMENT I	LOCATION INFORMA	-M**2	VAPOR TEMPE	ERATURE ME	ASUREMENT	LOCAT	ION INFORMA	TION
MIERRED V	APOR TEMP)				(INFERRED)	VAPOR TEMP)	and the same of	No.	
EVALLON	DZQF	14)	XE XA		ELEVATION	DZQF	IV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
232	1.052	805.0 .	818 .555	TON HEAT LOSS W/M**2	1.537	1.357	890.0	.915	.568	
L TEMPER	RATURE MEAS	GUREMENT LO	OCATION INFORMAT	ION	WALL TEMPER	RATURE MEA	SUREMENT	LOCATI	ON INFORMAT	ION
VALION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	HEAT LO
M)	(K)		W/M**2	W/M**2	(M)	(K)			M/M**5	W/M##2
0.12	501 T	200	5 035405		013	501.7	210		5 03E+0h	
06.5	531.7	.210	5.038,404		.013	635.1	.210		6 305 600	
063	033.1	.662	6.301+04		.051	635.1	,222		b. 065 404	
90.3	292.3	-225	4.961+04		.063	595.3	.226		4.901+04	
089	636.5	.234	6.058+04		.089	636.5	.234		6.051+04	
119	629.9	.243	7.60E+04		, 114	629.9	. 243		7.60E+04	
140	524.4	.255	9.41E+04		. 140	624.4	.255		9.418+04	
3.6.5	508.9	.269	1.02E+05		. 165	608.9	.269		1.02E+05	
- 103		. 353	9.83E+04		.317	712.5	. 353		9.83E+04	
317	712.5		1 1/15/405		3.00	770 0	107		1.41[+05	
317	712.5	-403	1.416703		. 394	117.13	.403			
317 394 470	712.5 779.0 844.1	-403 -461	1.348+05		. 394	844.1	.461		1.34E+05	
317 394 470 546	712.5 779.0 844.1 899.1	-403 -461 -514	1.34E+05 1.14E+05		. 394 . 470 . 546	844.1 899.1	.461		1.34E+05 1.14E+05	
317 394 470 546 622	712.5 779.0 844.1 899.1 924.8	.403 .461 .514	1.34E+05 1.14E+05 1.09E+05		. 394 . 470 . 546 . 622	844.1 899.1 924.8	.461		1.34E+05 1.14E+05 1.09E+05	
317 394 470 546 622 698	712.5 779.0 844.1 899.1 924.8	.403 .461 .514 .560	1, 34E+05 1, 14E+05 1, 09E+05		. 394 . 470 . 546 . 622 . 698	844.1 899.1 924.8	.461 .514 .560		1.34E+05 1.14E+05 1.09E+05	
317 394 470 546 622 698	712.5 779.0 844.1 899.1 924.8 951.3	-403 -461 -514 -560 -605	1.34E+05 1.14E+05 1.09E+05 1.01E+05		. 394 . 470 . 546 . 622 . 698	844.1 899.1 924.8 951.3	.461 .514 .560 .605		1.34E+05 1.14E+05 1.09E+05 1.01E+05	
317 394 470 546 622 698 775	712.5 779.0 844.1 899.1 924.8 951.3 962.8	-403 -461 -514 -560 -605 -645	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04		. 394 . 470 . 546 . 622 . 698 . 775	844.1 899.1 924.8 951.3 962.8	.461 .514 .560 .605		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04	
317 394 470 546 622 698 775 851	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1	.403 .461 .514 .560 .605 .645	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04		. 394 . 470 . 546 . 622 . 698 . 775 . 851	844.1 899.1 924.8 951.3 962.8 973.1	. 461 . 514 . 560 . 605 . 645		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04	
317 394 470 546 622 698 775 851 927	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8	.403 .461 .514 .560 .605 .645 .683 .718	1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04		. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927	844.1 899.1 924.8 951.3 962.8 973.1 979.8	.463 .514 .560 .605 .645 .683		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04	
317 394 470 546 622 698 775 851 927	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0	.403 .461 .514 .560 .605 .645 .683 .718	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04	2 105402	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927	844.1 899.1 924.8 951.3 962.8 973.1 979.8	.461 .514 .560 .605 .645 .683		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04	2 845
317 394 470 546 622 698 775 851 927 003 067	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6	403 461 514 560 605 645 683 718 751	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6	.461 .514 .560 .605 .645 .683 .718 .751		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04	2.44E+0
317 394 470 546 622 698 775 851 903 067 156	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6	.403 .461 .514 .560 .605 .645 .683 .718 .751	1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6	.461 .514 .560 .605 .645 .683 .718 .751		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04	2.44E+0
317 394 470 546 622 698 775 851 927 903 067 156 232	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6	403 461 514 560 605 645 683 718 751 773 800	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04	2.44E+0
317 317 394 470 546 622 698 775 927 903 067 156 232 257	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4	.403 .461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 976.8 966.8	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04	2.44E+0
317 394 470 546 6622 698 775 851 903 067 156 232 257 321	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4	.403 .461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832	1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.63E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1. 003 1. 067 1. 156 1. 232 1. 257 1. 321	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832		1.34F+05 1.14E+05 1.09E+05 1.01E+05 9.28F+04 8.66E+04 8.00F+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.63E+04 5.84E+04	2.44E+0
317 394 470 546 6622 698 775 851 927 903 1067 1156 232 257 321 384	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4	403 461 514 560 605 645 683 718 751 773 800 824 832 854	1. 34E+05 1. 34E+05 1. 14E+05 1. 09E+05 1. 01E+05 9. 28E+04 8. 66E+04 8. 66E+04 7. 54E+04 5. 36E+04 5. 63E+04 5. 63E+04 5. 63E+04 6. 58E+04 6. 13E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232 1.257 1.321 1.384	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.58E+04 6.13E+04	2,44E+0
317 394 470 546 6622 698 775 927 003 067 156 232 257 321 384 461	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 6.58E+04 6.13E+04 6.13E+04 5.82E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.13E+04 6.13E+04	2.44E+0
317 394 470 546 622 698 775 851 927 903 067 156 232 232 257 321 384 461 511	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2	.403 .461 .514 .560 .605 .645 .718 .773 .800 .824 .832 .854 .875 .900	1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.63E+04 5.84E+04 6.13E+04 5.82E+04	2.44£+03	. 3470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.2	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.84E+04 6.13E+04 5.82E+04 4.96E+04	2.44E+0
317 394 470 546 622 698 775 851 927 003 067 156 232 257 384 461 511 562	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875 900 915	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 6.58E+04 6.13E+04 4.96E+04 4.96E+04 5.12E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.2 1021.4	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900		1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.58E+04 6.13E+04 4.96E+04 4.96E+04	2.44E+0
317 394 470 546 622 698 775 927 927 923 967 156 232 257 321 384 461 511 562 613	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875 900 915 929	1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.84E+04 5.84E+04 5.82E+04 4.96E+04 5.12E+04 4.71E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.2 1021.4 1013.4	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900 .915		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.58E+04 6.13E+04 6.13E+04 4.96E+04 4.71E+04	2,44E+0
317 394 470 546 622 698 775 851 927 003 067 156 232 257 321 384 461 511 562 689	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4 1013.4 1021.4	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875 900 915 929	1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.63E+04 5.84E+04 6.13E+04 4.96E+04 4.96E+04 4.71E+04 4.17E+04	2.44£+03	. 3470 . 546 . 622 . 698 . 775 . 851 . 927 1. 003 1. 067 1. 156 1. 232 1. 257 1. 321 1. 384 1. 460 1. 511 1. 562 1. 613	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.4 1013.4 1021.4			1.34E+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 6.58E+04 6.58E+04 6.13E+04 4.96E+04 4.71E+04 4.17E+04	2.44E+0
317 394 470 470 546 622 698 775 851 927 003 067 156 232 257 321 384 461 511 562 613 689	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1021.4 1021.4 1021.4	403 461 514 560 605 645 683 718 751 773 800 824 832 875 900 915 929 943 962	1. 34E+05 1. 34E+05 1. 09E+05 1. 09E+05 1. 01E+05 9. 28E+04 8. 66E+04 8. 66E+04 7. 54E+04 5. 63E+04 5. 63E+04 6. 58E+04 6. 13E+04 6. 13E+04 4. 96E+04 4. 71E+04 4. 71E+04 4. 17E+04 4. 17E+04 3. 62E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.2 1021.4 1013.4 1021.4	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900 .915 .929 .943		1.34F+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 6.58E+04 6.13E+04 6.13E+04 5.82E+04 4.96E+04 4.71E+04 4.17E+04 4.17E+04 4.17E+04	2,44E+0
317 394 470 546 622 698 775 927 003 067 156 232 257 321 384 461 511 562 613 689 765	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4 1013.4 1022.0 1018.9	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875 900 915 929 943 962	1. 34E+05 1. 34E+05 1. 14E+05 1. 09E+05 1. 01E+05 9. 28E+04 8. 66E+04 8. 66E+04 7. 54E+04 5. 36E+04 5. 63E+04 5. 63E+04 5. 84E+04 5. 82E+04 4. 96E+04 5. 12E+04 4. 71E+04 4. 17E+04 3. 62E+04 2. 91E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4 1013.4 1022.0 1018.9	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900 .915 .925 .943		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.58E+04 6.13E+04 4.96E+04 4.96E+04 4.71E+04 4.17E+04 3.62E+04	2,44E+0
317 394 470 546 622 698 775 851 927 903 967 156 232 257 321 561 561 561 561 689 765 816 867	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4 1013.4 1021.4 1022.0 1018.9	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875 900 915 929 943 962 978	1. 34E+05 1. 34E+05 1. 09E+05 1. 09E+05 9. 28E+04 8. 66E+04 8. 66E+04 7. 54E+04 5. 36E+04 5. 63E+04 5. 63E+04 5. 84E+04 6. 13E+04 4. 96E+04 4. 71E+04 4. 17E+04 2. 91E+04 2. 91E+04 2. 77E+04	2.44£+03	. 3470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.2 1021.4 1013.4 1021.4 1022.0 1018.9	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900 .915 .929 .943 .962		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.63E+04 5.8E+04 6.13E+04 4.96E+04 4.71E+04 4.17E+04 4.17E+04 3.62E+04 2.91E+04	2.44£+0
317 394 470 546 622 698 775 851 927 003 067 156 232 257 321 384 461 511 562 613 689 765	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 977.6 966.8 966.4 1016.2 1025.2 1021.4 1013.4 1021.4 1022.0 1018.9 1009.6 981.2	403 461 514 560 605 645 683 718 751 773 800 824 832 875 900 915 929 943 962 978 987	1.34E+05 1.34E+05 1.09E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.66E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.13E+04 6.13E+04 4.96E+04 4.71E+04 4.71E+04 4.71E+04 2.91E+04 2.77E+04	2.44£+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1. 003 1. 067 1. 156 1. 232 1. 257 1. 384 1. 460 1. 511 1. 562 1. 613 1. 689 1. 765 1. 816	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.2 1021.4 1013.4 1022.0 1018.9 1009.6 981.2	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900 .915 .929 .943 .962		1.34F+05 1.14E+05 1.09E+05 1.01E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 6.58E+04 6.58E+04 6.13E+04 5.82E+04 4.96E+04 4.71E+04 4.17E+04 4.17E+04 2.77F+04 2.77F+04	2.44E+0
. 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 . 003 . 067 . 156 . 232 . 257 . 321 . 384 . 461 . 511 . 512 . 689 . 765 . 816 . 867 . 918	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 965.4 1016.2 1025.2 1021.4 1013.4 1022.0 1018.9 1029.6 981.2 972.5	403 461 514 560 605 683 718 751 773 800 824 832 854 875 900 915 929 943 962 978 987	1. 34E+05 1. 34E+05 1. 14E+05 1. 09E+05 1. 01E+05 9. 28E+04 8. 66E+04 8. 66E+04 7. 54E+04 5. 63E+04 5. 63E+04 5. 63E+04 5. 84E+04 5. 84E+04 4. 96E+04 4. 71E+04 4. 17E+04 4. 17E+04 2. 77E+04 2. 77E+04 2. 77E+04	2.44€+03	. 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1. 003 1. 067 1. 156 1. 232 1. 257 1. 321 1. 384 1. 460 1. 511 1. 562 1. 613 1. 689 1. 765 1. 867 1. 918	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.8 964.4 1016.2 1025.2 1021.4 1022.0 1018.9 1009.6 981.2	.461 .514 .560 .605 .645 .683 .718 .751 .773 .800 .824 .832 .854 .875 .900 .915 .929 .943 .962 .978		1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 6.58E+04 6.58E+04 4.96E+04 4.96E+04 4.71E+04 4.71E+04 4.71E+04 2.77E+04 2.77E+04	2.44£+0
317 394 470 546 622 698 775 851 927 003 067 156 232 257 324 461 511 562 613 689 765 816 867 918	712.5 779.0 844.1 899.1 924.8 951.3 962.8 973.1 979.0 900.6 977.6 966.8 965.4 1016.2 1025.2 1021.4 1013.4 1021.4 1022.0 1018.9 1009.6 981.2 972.5 934.5	403 461 514 560 605 645 683 718 751 773 800 824 832 854 875 900 915 929 943 962 978 987 987	1. 34E+05 1. 34E+05 1. 09E+05 1. 09E+05 9. 28E+04 8. 66E+04 8. 66E+04 7. 54E+04 5. 63E+04 5. 63E+04 5. 63E+04 5. 84E+04 6. 13E+04 4. 96E+04 4. 71E+04 4. 17E+04 2. 77E+04 2. 77E+04 2. 70E+04 2. 11E+04	2.44E+03	. 3470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	844.1 899.1 924.8 951.3 962.8 973.1 979.8 975.0 900.6 977.6 966.4 965.4 1016.2 1021.4 1013.4 1021.4 1021.4 1021.4 1021.5 1022.0 1018.9 1009.6 981.2			1.34E+05 1.14E+05 1.09E+05 1.09E+05 9.28E+04 8.66E+04 8.00E+04 7.54E+04 5.36E+04 5.63E+04 5.63E+04 5.84E+04 6.13E+04 4.96E+04 4.71E+04 4.71E+04 4.71E+04 4.77E+04 2.91E+04 2.77E+04 2.77E+04 2.11E+04	2.44£+0

	INET LOS	I-CHE EAST	THERE WE	163			THEE PES	1 - Contraction	LICITION .	1000	
POINT SERIA	L NO. 11	25.021	(TIME= 105	.50 SEC)	POINT SERIA (INFERRED V LOOP PRESSI FCV TEMPERA LHP INLET E TEST SECTION PRESSI SAT TE MASS F INLET INLET QUENCH FROM ELEVAT VELOCI QUALITI	KL NO. 21	25.021	(TIME= 1	05.50 SEC)
(INFERRED V	APOR TEMP)				(INFERRED V	APOR LEMP	1	47	12 MDA	
EQOP PRESSU	RE(PE-3)	distance of the	16.03	MPA		FOOL LEGIST	ME [PE - 5]	CV-1T1	612	1 S FIFA	
ECA TEMPERA	TUNE (IE -F	CA-111	1 5015.0	LINE		TOV TEMPERA	NTHAL PY	CA-111	1 58 (F+	06 1/40	
THE PAREL E	NIHALPT		1.3015+00	3/80		TEST SECTIO	NI-		1. 2016	00 37 60	
IF21 SECTION	IN:		7.07	MUN		PRI SECTION	10.6		7	O7 MPA	
CAT IS	INE.		550 61	Hr.A		SAT IS	MP		559	61 K	
MASS F	THE		30.66	WC/SEC	M**2	MASS I	LHX		30	66 KG/SEC	-M**2
INICI	OURLITY		206	HUY DE C	44 - K	INLET	QUALITY		2	06	
181.67	ENTHAL PY		1 581F+06	T/KG		INLET	ENTHAL PY		1.581E+	06 J/KG	
QUENCH FROM	(1:			47 114		QUENCH FROM	11:				
FIEVAL	LON		.289	- 16		ELEVAT	ION		.2	89 M	
VELOC1	TY		.0109	M/SEC		VELOCI	IY		.01	09 M/SEC	
QUALIT	Y		. 325			QUALIT	Y		. 3	25	
ELEVAT VELOCI QUALIT NET LHP POW	ER TO FLU	10	0.0	H		NET LHP POW	ER TO FLU	10	0	.0 W	
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMA	TION	VAPOR TEMPE (INFERRED V ELEVATION	RATURE ME	ASUREMENT	LOCATIO	N INFORMAT	TION
EMIERKED A	AFOR TEMP	Tie	WE WA			ELEVATION V	DZOE	1 tv	VF V	Δ.	
(H)	(M)	(K)	AE AA			(M)	(M)	(K)	AL		
1.232	.942		.788 .549	ÆÆ.		1.537	1.247	867.0	.883 .5	61	
						WALL TEMPER ELEVATION (M)			LOCATION	INFORMAT	LON
ELEVATION	TEMP	SUNEMENT	HEAT	FLUX	HEAT LOSS	FIFVATION	TEMP	XF	HE	AT FLUX	HEAT LOSS
CECANO ION	(K)	AL.	W/N	1882	W/M**2	(M)	(K)		W	/M**2	W/M**2
4.44	4		140						4. 6. 4. 5. 6. 8. 9. 8. 1. 1. 1. 9. 9. 8. 7. 7.		
.013	588.6	.210	4.84	E+04		.013	588.6	.210	4.	84F+04	
.051	628.9	.221	6.02	E+04		.051	628.9	.221	6.	02E+04	
.063	592.8	. 225	4.79	E+04		.063	592.8	.225	4.	79E+04	
.089	611.2	.232	5.67	E+04		.089	611.2	.232	5.	67E+04	
.114	600.8	.241	6.93	E+04		.114	600.8	.241	6.	93E+G1	
. 140	589.2	.252	8.33	E+04		. 140	589.2	.252	8.	33E+04	
. 165	584.5	.264	9.00	E+04		. 165	584.5	. 264	9.	30L+04	
. 317	802.0	. 339	8.76	E+04		. 317	802.0	. 339	8.	76E+04	
.394	747.1	. 383	1.23	E+05		. 394	905 3	. 383		235+05	
-470	805.3	. 435	1.23	E+05		.470	866 0	,433		185+05	
.546	000.9	536	1.10	E+05		622	000.9	536		085+05	
.622	033 6	577	0.82	E +0/h		698	933 6	577	9	82F+0h	
.775	953.0	617	9.02	E+04		775	947.5	617	9	09F+0h	
.851	959 6	654	8 52	E+04		851	959.4	.654	8	52E+04	
.927	967.3	689	7.92	E+04		.927	967.3	.689	7.	92E+04	
1.003	963.6	.721	7.41	E+04		1,003	963.6	.721	7.	41E+04	
1.067	894.3	. 743	5.36	E+04	3.39E+03	1.067	894.3	.743	5.	36E+04	3.39E+03
1.156	971.7	.771	5.67	E+04		1.156	971.7	.771	5.	67E+04	
1.232	960.4	. 795	5.70	E+04		1.232	960.4	. 795	5.	70E+04	
1.257	956.7	. 803	6.37	E+04		1.257	956.7	.803		37E+04	
1.321	959.3	.824	5.64	E+04		1.321	959.3	.824		64E+04	
1.384	1009.3	.845	6.06	E+04		1.384	1009.3	. 845		06E+04	
1.460	1019.9	.869	5.51	E+04		1.460	1019.9	.869		51E+04	
1.511	1017.5	.883	4.75	E+04		1.511	1017.5	.883		75E+04	
1.562	1009.6	.897 .910 .929 .945 .954 .962 .969 .979	4.93	E+04		(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.067 1.156 1.232 1.257 1.321 1.384 1.460 1.511 1.562 1.613 1.689	1009.6	. 897	4.	93E+04	
1.613	1018.5	.910	4.60	E+04		1.613	1018.5	.910	4.	60E+04	
1.689	1020.5	.929	4.06	E+04		1.689 1.765	1020.5	. 929	4.	06E+04	
1.765	1018.5	.945	3.56			1.765	1018.5	.945	3.	56E+04	
1.816	083.6	.934	2.83	EADA		1.816	083 6	. 954	2.1	83E+04	
1.867	903.3	.902	2.14	E+Oh		1.918	903.3	.902	2.	74E+04 64E+04	
1.994	979.0	979	2.74 2.64 2.13 1.69	E+Ob		1.994	1018.5 1020.5 1018.5 1010.8 983.5 975.0 938.5 932.4	979	2.1	13E+04	
	932.4	987	1 60	F+Oh		2.070	930.9	987	1	69E+04	
2.010	232.4	. 201	1.05			2.010	236.4	. 707	8.43	222.104	

	THEE POST	CHI CALCINE	mar no. 123							
POINT SERIA	AL NO. 1125	.030 (1)	ME= 109.50 SEC)		POINT SER	IAL NO. 2	125.030	(TIME=	109.50 SEC)
LOOP PRESSU	URE(PE-3)		16.04 MPA		LOOP PRES	SURE (PE-3)		16	.04 MPA	
FCV TEMPERA	ATURELTE-FCV	(-11)	611.9 K		FCV TEMPE	RATURE (TE-	FCV-11)	61	1.9 K	
LHP INLET I	ENTHALPY	1.	580£+06 J/KG		LHP INLET	ENTHALPY		1.580E	+06 J/KG	
TEST SECTIO	ON:				TEST SECT	ION:				
PRESSI	URE		7.06 MPA		PRES	SURE		1	.06 MPA	
SAT TE	EMP		559.54 K		SAT	TEMP		559	.54 K	
MASS F	FLUX		30.66 kG/SEC-	M**2	MASS	FLUX		30	.66 KG/SEC	-W**5
INLET	QUALITY		.206		INLE	I QUALITY			206	
INLET	ENTHALPY	1.	580E+06 J/KG		INLE	T ENTHAL PY		1.580E	+06 J/KG	
QUENCH FROM	NT:				QUENCH FR	ONT:				
ELEVAT	FION		.333 M		ELEV	ALION			333 M	
VELOCI	ITY		.0109 M/SEC		VELO	CITY		. 0	109 M/SEC	
QUALIT	IY		. 339		QUAL	HY			339	
NET LHP PO	WER TO FLUID		0.0 W	M**2	NET LHP P	OWER TO FL	UID		0.0 W	
VAPOR TEMPS	ERATURE MEAS	SUREMENT LO	CATION INFORMAT	ION	VAPOR TEM	PERATURE M	EASUREMENT	LOCATE	ON INFORMA	TION
ELEVATION	DZQF	TV XE	XA		ELEVATION	OZQF	14	XC.	KA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.899	61.8 .77	9 .555	ON HEAT LOSS W/M**2	1.53?	1.204	864.9	.073 .	555	
WALL TEMPER	RATURE MEASU	REMENT LOC	ATION INFORMATI	ON	WALL TEMP	ERATURE ME	ASUREMENT	LOCATIO	N INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	H	EAT FLUX	HEAT LOSS
(M)	(K)		M/M**5	M/W**5	(M)	(K)			H/M**2	M/W**5
013	586.5	.209	4.76E+04		.013	586.5	.209	14	.76E+04	
.051	624.6	.220	5.83E+04		.051	624.6	.220	5	.83E+04	
063	591.0	.224	4.69E+04		.063	591.0	. 224	14	.69E+04	
089	608.5	.231	5.47E+04		.089	608.5	.231	5	.47E+04	
114	598.3	. 240	6.55E+04		. 114	598.3	. 240	6	.55E+04	
140	586.8	. 250	7.74E+04		. 140	586.8	.250	7	. 74E+04	
165	582.6	. 261	8.32E+04		.165	582.6	.261	8	.32E+04	
.317	723.8	. 331	8.19E+04		.317	723.8	. 331	8	. 19E+04	
394	816.1	.371	1.121+05		. 394	816.1	. 371	1	. 12E+05	
470	781.6	.419	1.14E+05		.470	781.6	.419	1	.14E+05	
.546	837.6	.467	1.14E+05		.546	837.6	. 467	. 1	. 14E+05	
622	884.2	.517	1.21E+05		.622	884.2	.517	1	.21E+05	
698	919.9	.564	9.92E+04		.698	919.9	. 564	9	.92E+04	
.775	935.4	-604	9.31E+04		.775	935.4	.604	9	.31E+04	
.851	948.7	-642	8.63E+04		.851	948.7	. 642	8	.63E+04	
.927	957.5	.677	8.14E+04		.927	957.5	.677	8	. 14E+04	
1.003	955.1	.711	7.62E+04		1.003	955.1	.711	7	.62E+04	
1.067	889.3	.734	5.48E+04	3.08E+03	1.067	889.3	. 734	5	.48E+04	3.08E+03
1.156	967.1	. 761	5.76E+04		1.156	967.1	.761	5	.76E+04	
1.232	955.3	. 785	5.71E+04		1.232	955.3	. 785	5	.71E+04	
1.257	951.3	. 794	6.44E+64		1.257	951.3	. 794	6	. 44E+04	
1.321	955.6	.815	5.60E+03		1.321	955.6	-815	5	. 60E+04	
1.384	1004.8	.835	5.86E+04		1.384	1004.8	. 835	5	.86E+04	
1.460	1016.9	.859	5.37E+04		1.460	1016.9	.859	5	. 37E+04	
1.511	1015.5	.873	4.62E+04		1.511	1015.5	.873	14	.62E+04	
1.562	1007.9	.886	4.73E+04		1.562	1007.9	.886	£4	. /3E+04	
1.613	1017.2	.899	4.44E+04		1.613	1017.2	. 899	11	44E+04	
1.689	1020.2	.917	3.90E+04		1.689	1020.2	.917	3	.90E+04	
1.765	1019.1	.932	3.41E+04		1.765	1019.1	.932	3	41E+04	
1.816	1012.3	.941	2.76£+04		1.816	1012.3	.941	2	. 76E+04	
1.867	985.6	.948	2.71E+04		1.867	985.6	. 948	2	.71E+04	
1.918	977.4	.956	2.63E+04		1.918	977.4	.956	2	.63E+04	
1.994	941.8	.966	2.17E+04		1.994	941.8	.966	2	. 17E+04	
2.070	936.6	.974	1.74E+04		2.070	936.6	.974	1	. 74E+04	
2.070	930.0	.974	1.748+04	3.08E+03	2.070	930.0	.974		. 742+04	

	INEL POS	I-CHE EXP	LRIMENT NO. 125			THEL PUS	1-CHE LAP	ERIPIE	NI NO. 123	
LINFERRED	VAPOR TEMP	1	TIME= 113.50 SE	C)	POINT SERI (INFERRED LOOP PRESS FCV TEMPER LHP INLET TEST SECTI	AL NO. 21 VAPOR TEMP	25.041	(TIME	= 113.50 SEC	1
LOOP PRESS	SURE (PE-3)		16 06 MPA 611.9 K 1.580E+06 J/KG		LOOP PRESS	SURE (PE-3)			16.06 MPA	
FCV TEMPER	ATURE (TE-F	CV-11)	611.9 K		FCV TEMPER	RATURE (TE-F	CV-11)		611.9 K	
LHP INLET	ENTHALPY		1.580E+06 J/KG		LHP INLET	ENTHALPY		1.58	DE+06 J/KG	
TEST SECTI	ON:				TEST SECTI	ON:			7 07 1104	
PRESS	URE		7.07 MPA		PRESS	URE			7.07 MPA	
SAT I	EMP		559.57 K		SALI	EMI		2	29.21 K	-M##2
MASS	FLUX		30.65 KG/SEC	r-64.4.5	INLET	OHALITY			206	-HE
INLET	CHTHALDY		1 5805:06 1/80		INIET	ENTHALPY		1 580	7.07 MPA 59.57 K 30.65 KG/SEC .206 DE+06 J/KG	
QUENCH FRO	ENTHALFT.		1.380E-00 37 NO		OUFNCH FRO	NT:			3E-00 07 NO	
FLEVA	TION		.393 M		ELEVA	TION			.393 M	
VELOC	LIY		.0195 M/SEC		VELOC	TIY			.0195 M/SEC	
QUALI	TY		. 362		QUALI	IY			. 362	
NET LHP PO	WER TO FLU	ID	0.0 W	C-M**2	NET LHP PO	WER TO FLU	10		0.0 W	
VAPOR TEMP		ASUREMENT	LOCATION INFORMA		VAPOR TEMP	ERATURE ME	ASUREMENT	LOCA	TION INFORMA	TION
ELEVATION	DZQF	IV	XE XA		ELEVATION	DZQF	IV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.839	744.0	.770 .560		1.537	1.144	830.0	.867	.572	
WALL TEMPE	RATURE MEA	SUREMENT I	OCATION INFORMA	TION	WALL TEMPE	RATURE MEA	SUREMENT	LOCAT	ON INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION		XE		HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2	(M)	(K)			W/M**2	M/W**2
.013	584.7	.209	4.66E+04		.013	584.7	.209		4.66E+04	
.051	620.9	.220	5.66E+04		.051	620.9	.220		5.66E+04	
.063	589.5	.223	4.60E+04		.063	589.5	.223		4.60E+04	
.089	606.2	.230	5.31E+04 6.25E+04		.089	606.2	.230		5.31E+04	
. 114	596.2	.239	6.25E+04		,114	596.2	.239		6.25E+04	
. 140	584.9	.248	7.28E+04		. 140	584.9	. 248		7.281+04	
. 165	581.1	.259	7.80E+04		. 165	581.1	.259		7.80E+04	
.317	651.1	. 324	7.72E+04		.317	651.1	. 324		7.72E+04	
.394	733.9	. 362	1.03E+05		. 394	733.9	. 362		1.03E+05	
.470	818.2	.406	1.07E+05 1.08E+05		.470	818.2 813.2	.406		1.07E+05 1.08E+05	
.622	854.7	.501	1.23£+05		.622	854.7	.501		1.23E+05	
.698	905.5	.549	1.04E+05		.698	905.5	.549		1.04E+05	
.775	922.2	.591	9.48E+04		.775	922.2	.591		9.48E+04	
.851	937.5	.629	8.75E+04		.851	937.5	.629		8.75E+04	
.927	947.0	.665	8.27E+04		.927	947.0	.665		8.27E+04	
1.003	945.6	.699	7.80E+04		1.003	945.6	.699		8.27E+04 7.80E+04 5.63E+04	
1.067	883.7	.723	5.63E+04	3.10E+03	1.067	883.7	.723		2.000	3.10E+03
1.156	961.9	. 751	5.93E+04		1.156	961.9	. 751		5.93E+04	
1.232	950.0	.776	5.82E+04		1.232	950.0	. 776		5.82E+04	
1.257	945.0	. 785	6.69E+04		1.257	945.0	. 785		6.69E+04	
1.321	951.1	.807	5.82E+04 5.97E+04		1.321	951.1	.807		5.82E+04 5.97E+04	
1.460	1013.3	.852	5.67E+04		1.460	1013.3	.852		5.67E+04	
1.511	1012.9	.867	4.90E+04		1.511	1012.9	.867		4.90E+04	
1.562	1005.8	.881	4.961+04		1.562	1005.8	.881		4.96E+04	
1.613	1015.5	.894	4.65E+04		1.613	1015.5	.894		4.65E+04	
1.689	1019.9	.912	4.01E+04		1.689	1019.9	.912		4.01E+04	
1.765	1019.7	.928	3.53E+04		1.765	1019.7	.928		3.53E+04	
1.816	1013.6	.937	2.91E+04		1.816	1013.6	.937		2.91E+04	
1.867	987.6	.945	2.80E+04		1.867	987.6	. 945			
1.918	979.4	.953	2.78E+04		1.918	979.4	.953		2.80E+04 2.78E+04 2.24E+04	
1.994	944.9	.964	2.24E+04		1.994	944.9	. 964		2.24E+04	
2.070	940.5	.972	1.83E+04		2.070	940.5	.972		1.83E+04	

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C-W**2	ATTON	HEAT LOSS W/M**2		2.901.403
16.10 MPA 611.9 K 1.579E+06 J/KG 7.06 MPA 559.53 K 30.67 KG/SEC 206 1.579E+06 J/KG 164 M 164 M 164 M 164 M	A	9 ,579 ATION INFORMATION W/M**2	5535 177 177 177 177 177 177 177 177 177 17	5. 17E + 04 5. 97E + 04 6. 86E + 04 6. 93E + 04 6. 10E + 04 6. 19E + 04 7. 19E + 04 4. 88E + 04 4. 21E + 04 3. 17E + 04 2. 98E + 04
1 1	EN.	ASUREMENT LOCA	200 220 220 230 230 230 230 230 230 230	7410 7741 7741 7744 7744 8818 8873 8873 9923 9923 9929 9929 9929
ITAL NO. 2125.0 I VAPOR IEMP) SURE(PE-3) RAIURE(IE-FCV-1 ENTHALPY ION: SURE FLUX FLUX FLUX FLUX FLUX ONT: I MIHALPY ONT: ITY I TONT ONT: ITY	APOR TEMP) 02QF (M)	1.073 E RATURE MEASI TEMP (K)	583.0 5584.0 5584.0 5585.0 5585.0 5585.0 5585.0 5585.0 5685.0	987.6 9946.0 9946.0 9946.0 995.1 1008.4 1008.9 1018.8 1019.5 1019.5 988.9 947.3
POINT SERIAL NO. (INFERED VAPOR LOOP PRESSURE FE FCV TEMPERATURE [LHP INLET ENTHAL TEST SECTION: FRESSURE SAT TEMP MASS FLUX INLET QUALITY VELOCITY VELOCITY VELOCITY VELOCITY VET GUALITY VET GUALITY VET GUALITY VET GUALITY VET CHP POWER TO	O # SE	1.537 WALL TEMPER ELEVATION (M)	0013 0063 0063 0063 0063 007 007 007 007 007 007 007 007 007 00	2.094 2.096 2.096 2.096 2.096 2.096 2.096
2 ** **	ION	ION HEAT LOSS W/M**2	2.98E+03	
16.39 MPA 611.9 K 1,580£+c6 J/KG 7,06 MPA 559.31 K 30.69 KG/SEC- 206 1,580£+06 J/KG 4,448 M 0,016,0 M/SEC 387	CAT	HEAT FLUX H/M**2 h/M**2	5.55E+04 4.24E+04 5.05E+04 7.00E+04 7.44E+04 7.44E+04 1.02E+05 1.02E+05 1.02E+05 1.02E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+05 1.05E+06 1.05E+	5.93E+04 6.82E+04 6.82E+04 6.09E+04 5.91E+04 6.09E+04 4.19E+04 4.19E+04 3.13E+04 2.97E+04 1.96E+04 1.96E+04
1 050 .	ASUREMENT LOC TV XE (K) 733.4 .76	ASUREMENT LOC.	220 223 223 223 2247 2472 250 250 250 250 250 250 250 250 250 25	748 777 777 777 8820 8815 988 978 972 972
E 23 1	RATURE ME DZQF (M)	TURE ME TEMP (K)	618.3 588.5 588.5 588.7 588.7 588.7 658.9 676.8 676.8 676.8 978.9 938.8 938.8 938.8	945.7 945.7 947.3 947.3 947.3 947.3 947.3 946.9 946.9
LOOP PRESSURE PECY TEMPERATURE LIFE INLET ENTHAL TEST SECTION: PRESSURE SAI TEMPERATURE SAI TEMPERATURE INLET QUALITY QUENCH FRONT: ELEVATION VELOCITY QUALITY AND CHIP POWER TO	ELEVATION (M) 1.232	ELEVATION (M)		232 232 232 232 232 232 232 232 232 232

951.2

.939

2.20E+04

```
POINT SERIAL NO. 2125.061 (TIME= 123.50 SEC)
POINT SERIAL NO. 1125.061 (TIME= 123.50 SEC)
(INFERRED VAPOR TEMP)
                                                                           [INFERRED VAPOR TEMP]
                                                                           LOOP PRESSURE(PE-3)
                                                                                                                16.07 MPA
LOOP PRESSURE(PE-3)
                                    16.07 MPA
                                                                                                               611.8 K
                                                                           FCV TEMPERATURE (TE-FCV-1T)
FCV TEMPERATURE (TE-FCV-1T)
                                   611.8 K
LHP INLET ENTHALPY
                                                                           LHP INLET ENTHALPY
                                                                                                           1.579E+06 J/KG
                               1.579E+06 J/KG
                                                                           TEST SECTION:
TEST SECTION:
                                                                                 PRESSURE
                                                                                                                 7.06 MPA
     PRESSURE
                                     7.06 MPA
                                                                                 SAT TEMP
                                                                                                               559.56 K
     SAT TEMP
                                   559.56 K
                                    30.49 KG/SEC-M**2
                                                                                                               30.49 KG/SEC-M**2
                                                                                 MASS FLUX
     MASS FLUX
     INLET QUALITY
                                                                                 INLET QUALITY
                                                                                                                 .205
                                     .205
                                                                                                            1.579E+06 J/KG
                                                                                 INLET ENTHALPY
     INLET ENTHALPY
                               1.579E+06 J/KG
QUENCH FRONT:
                                                                           QUENCH FRONT:
                                                                                 ELEVATION
                                                                                                                 .550 M
     ELEVATION
                                     .550 M
                                                                                 VELOCITY
                                                                                                                .0130 M/SEC
                                    .0130 M/SEC
     VELOCITY
                                     .404
                                                                                                                 .404
                                                                                 QUALITY
     QUALITY
                                                                                                                 0.0 W
NET LHP POWER TO FLUID
                                     0.0 W
                                                                           NET LHP POWER TO FLUID
                                                                           VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                           (INTERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                           ELEVATION
                                                                                         DZQF
                                                                                                   IV
ELEVATION
             DZQF
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                                      XA
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                                                                                         .987
 1.232
             .682
                      695.0
                              .721 .557
                                                                            1.537
                                                                                                  785.0
                                                                                                          .824
                                                                                                                .571
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                           WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                    HEAT FLUX
                                                   HEAT LOSS
                                                                           ELEVATION
                                                                                          TEMP
                                                                                                                HEAT FLUX
                                                                                                                                HEAT LOSS
ELEVATION
              TEMP
                           XE
                                                                                                       XE
                                     W/M**2
                                                    W/M**2
                                                                             (M)
                                                                                           (K)
                                                                                                                 W/M**2
                                                                                                                                 W/M**2
 (M)
               (K)
                                     4.41E+04
                                                                             .013
                                                                                          578.7
                                                                                                      . 2019
                                                                                                                4.41E+04
  .013
              578.7
                          .209
                          .219
                                     5.13E+04
                                                                             .051
                                                                                          609.2
                                                                                                      .219
                                                                                                                 5.13E+04
  .051
              609.2
  .063
              584.5
                          .222
                                     4.28E+04
                                                                             .063
                                                                                          584.5
                                                                                                      .222
                                                                                                                 4.28E+04
                          .228
  .089
                                     4.64E+04
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                                                                                                      .228
                                                                                                                4.64E+04
              598.4
  . 114
                                                                                                                 4.59E+04
                          .235
              588.1
                                     4.59E+04
                                                                             . 114
                                                                                          588.1
                                                                                                      .235
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                                                                                          576.4
                                                                                                      .241
                                                                                                                4.51E+04
  . 140
              576.4
                          .241
                                     4.51E+04
                          .247
                                     4.31E+04
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                                                                                                      .247
                                                                                                                4.31E+04
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              574.7
                          .293
                                     6.53E+04
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                                                                                          631.6
                                                                                                      .293
                                                                                                                6.53E+04
  .317
              631.6
                          .325
  . 394
              674.2
                                     8.55E+04
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                          .489
  .698
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                                     1.03E+05
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                                                                                                      .489
                                                                                                                 1.03E+05
  .775
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              866.6
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                                                                                                      .532
  .851
              899.6
                          .572
                                     8.86E+04
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                                                                                          899.6
                                                                                                      .572
                                                                                                                8.86E+04
  .927
              911.7
                          .609
                                     8.51E+04
                                                                              .927
                                                                                          911.7
                                                                                                      .609
                                                                                                                8.51E+04
                                                                                          912.2
                                     8.23E+04
                                                                            1,003
                                                                                                      .645
                                                                                                                8.23E+04
 1.003
              912.2
                          .645
                          .670
              863.9
                                     6.05E+04
                                                    3.00E+03
                                                                            1.067
                                                                                          863.9
                                                                                                      .670
                                                                                                                6.05E+04
                                                                                                                                3.00E+03
 1.067
                          .701
                                     6.44E+04
                                                                                          942.6
                                                                                                      .701
                                                                                                                6.44E+04
 1.156
              942.6
                                                                            1.156
 1.232
              930.5
                          .728
                                     5.31E+04
                                                                            1.232
                                                                                          930.5
                                                                                                      .728
                                                                                                                6.31E+04
                                     7.13E+06
                                                                                                                 7.13E+04
 1,257
              920.8
                          .737
                                                                            1.257
                                                                                          920.8
                                                                                                      .737
              934.3
                                     5.14E+04
                                                                            1.321
 1.321
                          .761
                                                                                          934.3
                                                                                                      .761
                                                                                                                6.14E+04
                                                                                                      .782
                          .782
                                     6.18E+04
 1.384
              983.3
                                                                            1.384
                                                                                          983.3
                                                                                                                 6.18E+04
                                                                                          998.1
 1.460
              998.1
                          .808
                                     5.88E+04
                                                                            1.460
                                                                                                      .808
                                                                                                                5.88E+04
 1.511
              1000.8
                          . 824
                                     5.18E+04
                                                                            1.511
                                                                                         1000.8
                                                                                                      .824
                                                                                                                 5.18E+04
                          .838
                                     5.21E+04
 1.562
              995.3
                                                                            1.562
                                                                                          995.3
                                                                                                      . 838
                                                                                                                 5.21E+04
             1006.8
                                     4.96E+04
                                                                            1.613
 1.613
                          .853
                                                                                         1006.8
                                                                                                      .853
                                                                                                                4.96E+04
 1.689
              1016.3
                          .872
                                     4.21E+04
                                                                            1.689
                                                                                         1016.3
                                                                                                      .872
                                                                                                                4.21E+04
 1.765
              1019.2
                          .889
                                     3.69E+04
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                                                                                                                3.69E+04
                                                                            1.765
                                                                                                      .889
 1.816
              1015.0
                          .898
                                     3.18E+04
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                                                                                         1015.0
                                                                                                      .898
                                                                                                                 3.18E+04
                                     3.15E+04
 1.867
              991.5
                          .907
                                                                            1.867
                                                                                          991.5
                                                                                                      .907
                                                                                                                3.15E+04
 1.918
              983.3
                          .916
                                     3.15E+04
                                                                            1.918
                                                                                                      .916
                                                                                          983.3
                                                                                                                3.15E+04
 1.994
              953.1
                          .928
                                     2.56E+04
                                                                            1.994
                                                                                          953.1
                                                                                                      .928
                                                                                                                2.56E+04
```

2.070

951.2

.939

2.20E+04

										100 50 550	
CINFERRED V	APOR TEMP	25.071	(TIME= 128	.50 SEC)	POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT	APOR TEM	P)	(I IME	= 128.50 SEC	
LOOP PRESSU	RE(PE-3)		16.05	MPA		LOOP PRESSU	RE(PE-3)			16.05 MPA	
FCV TEMPERA	TURE (TE-F	CV-11)	611.7	K		FCV TEMPERA	TURE (TE-1	FCV-1T)		611.7 K	
LHP INLET E	NTHALPY		1.578E+06	J/KG		LHP INLET E	NTHALPY		1.57	8E+06 J/KG	
TEST SECTIO	N:		7.06	****		TEST SECTIO	N:			7 06 MRA	
PRESSU	IKE		7.06	MPA		PRESSU SAT TE	MD			7.00 MPA	
SAI IL	MP		30.20	KC/SEC	M##3	MASS F	LIIX			30 20 KG/SEC	-M##2
INIET	OHALLTY		205	NO/ SEC	нг	INLET	QUALITY			205	
INLET	ENTHAL PY		1.578E+06	J/KG		INLET	ENTHAL PY		1.57	8E+06 J/KG	
QUENCH FROM	T:		113100.00	0,110		QUENCH FROM	T:				
ELEVAT	ION		.619	М		QUENCH FROM ELEVAT VELOCI QUALIT NET LIIP POW	ION			.619 M	
VELOCI	TY		.0145	M/SEC		VELOCI	IY			.0145 M/SEC	
QUALIT	Y		.419			QUALIT	Υ			.419	
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMA	TION	VAPOR TEMPE (INFERRED V	RATURE ME	EASUREMEN P)	I LOCA	TIGH INFORMA	TION
			XE XA			ELEVATION		TV	XE		
(M)	(M)	(K)				(M)	(M)	(K)			
1.232	.613	672.0	.711 .567			1.537	.918	762.0	.818	.582	
WALL TEMPER	RATURE MEA	SUREMENT	LOCATION I	NEORMAT	ION	WALL TEMPER ELEVATION (M)	ATURE MEA	ASUREMENT	LOCAT	ION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS	ELEVATION "	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)		W/M	**2	M/W##5	(M)	(K)			M\H##5	M/W**5
.013	574.5	208	4.21 4.79 4.09 4.31 4.20 4.02 3.99 5.63 7.50 8.03 1.01 9.79	E+04		.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003	574.5	. 200	3	4.21E+04 4.79E+04 4.09E+04 4.31E+04 4.02E+04 4.02E+04 5.63E+04 7.50E+04 8.03E+04 8.03E+04 1.01E+05 9.79E+04	
.051	601.0	.217	4.79	E+04		.051	601.0	.21	7	4.79E+04	
.063	581.2	.221	4.09	E+04		.063	581.2	.22	1	4.09E+04	
.089	593.3	.227	4.31	E+04		.089	593.3	.22	7	4.31E+04	
. 114	583.7	.233	4.20	E+04		. 114	583.7	.23.	3	4.20E+04	
. 140	573.0	. 238	4.02	E+04		. 140	5/3.0	. 230	5	4.02E+04	
. 165	5/1.8	285	5.99	E+04		317	603 11	28		5 635+04	
.394	642 0	313	5.63 7.50 8.03 8.53 1.01 9.79 9.70	F+04		3911	642.0	31	1	5.63E+04 7.50E+04 8.03E+04 8.53E+04 1.01E+05 9.79E+04	
.470	674.4	. 346	8.03	E+04		.470	674.4	. 346	5	8.03E+04	
.546	712.5	. 381	8.53	E+04		.546	712.5	. 38	1	8.53E+04	
.622	725.7	.421	1.01	E+05		.622	725.7	.42	1	1.01E+05	
.698	792.7	. 463	9.79	E+04		.698	792.7	.46.	3	9.79E+04	
	Oc. 1 - C		2.10	and the same		.775	821.2	. 50)	9.70E+04 9.19E+04 9.30E+04 8.35E+04 6.64E+04	
.851	865.0	.545	9.19 9.30	E+04		.851	865.0	. 545)	9.19E+04	
1.003	883.9	.584	9.30	E+04		1.003	883.9 886.7		4	9.30E+04	
1.067	886.7	.648	6 60	E+04		1.067	848.0	660	R.	6 6hF+0h	
1.156	926.8	.682	6 12	E+04		1.156	926.8	682	2	6.72F+04	
1.232	913.3	.711	7.08	E+04		1.232	913.3	. 71	1	7.08E+04	
1.257	901.7	.721	7.28	E+04		1,257	913.3 901.7	. 12	1	7.28E+04	
1.321	920.5	. 745	6.31	E+04		1.321	900.3	. 74	5	6.31E+04	
1.384	969.4		6.36	E+04		1.384	969.4	. 760	3	6.36E+04	
1.460	986.3	. 794	7.08 7.28 6.31 6.36 5.98	E+04		1.460	986.3	. 791	1	6.72E+04 7.08E+04 7.28E+04 6.31E+04 6.36E+04 5.98E+04	
1.511	991.4	.810	5.31	£+04		1.511	991.4	.011	,	5.31E+04	
	987.0 999.7			E+04		1.562	987.0			5.32E+04 5.08E+04	
1.562	999.1	. 840		F+Oh		1.613	999.7	961	3	0.08E+04	
1.613						1.003	1012.1	. 600	,	4.301104	
1.613	1013.1	.860	3 90	E+Ois		1 765	1018 0	9.71	a .	3 BAEAOL	
1.613 1.689 1.765	1013.1	.878	3.84	E+04		1.765	1018.9	.878	4	4.38E+04 3.84E+04	
1.613 1.689 1.765 1.816	1013.1	.878	3.84	E+04		1.765 1.816 1.867	1018.9 1016.1 994.0	. 878	4	3 355406	
1.613 1.689 1.765	1013.1	.878	3.84	E+04		1.765 1.816 1.867 1.918	1018.9 1016.1 994.0 985.9	. 878 . 888 . 898	4	3 355406	
1.613 1.689 1.765 1.816 1.867	1013.1	.878	3.84 3.35 3.33 3.30 2.75 2.42	E+04		1.765 1.816 1.867 1.918 1.994	1018.9 1016.1 994.0 985.9 958.9 959.0	.876 .886 .890 .90	4	3.84E+04 3.35E+04 3.33E+04 3.30E+04 2.75E+04 2.42E+04	

2.77E+04

.929

966.5

HEAT LOSS

W/M##2

30.11 KG/SEC-M**2

2.070

966.5

.929

2.77E+04

	INEL POST-	-CIIF EXPERIM	ENT NO. 125		INEL POS	SI-CHE EXE	EKIMENI I	10. 125	
/ INCEPDED V	ARROD TEMPS		E= 134.50 SEC)	POINT SERIAL (INFERRED V/ LOOP PRESSUL FCV TEMPERAL LHP INLET ET TEST SECTION					
FCV TEMPERA	ATURE (TE-FC)	/-1T)	611.7 K	FCV TEMPERA	TURE (TE-	CV-1T)	611.	7 K	
LHP INLET F	HTHALPY	V-1T)	78E+06 J/KG	LHP INLET EN	NTHALPY		1.578E+0	16 J/KG	
TEST SECTION PRESSU	214.			PRESSUI	RE		7 (16 MPA	
CAT TE	MD		7.06 MPA 559.55 K	SAT TEN	MP P		559.5	5 K	
MASS F	LUX		30.11 KG/SEC-M**2	MASS FI	LUX		30.1	11 KG/SEC-	Man
INLET	QUALITY	1.5	30.11 KG/SEC-M**2 .204 78E+06 J/KG	INLET	QUALITY		1 5785+0	16 1/KG	
QUENCH FROM	NT:			QUENCH FRONT	T:		1.3101.10	0 3710	
FLEVAT	TION		.702 M .0133 M/SEC	ELEVAT			.013	12 M	
VELOCI			.0133 M/SEC .432	VELOCIT			.013		
	VER TO FLUIT)	0.0 W	NET LHP POWE		110		OW	
			ATTON INCOMMATION	VARIOR TEMPES	DATHER ME	A CUDE ME NT	LOCATION	INFORMAT	100
	APOR TEMP)	SUREMENT LOCA	ATION INFORMATION	VAPOR TEMPER (INFERRED VA			LUCATION	INFORMAT	TON
ELEVATION	DZQF	TV XE	XA	ELEVATION	DZQF	TV	XE XA	K	
(M)	(M)	(K)		(M)	(M)	(K)			
1.232	.530 (539.0 .695	.583	1.537	.835	734.0	.808 .59	14	
WALL TEMPER	RATURE MEASE	PREMENT LOCA	TION INFORMATION	WALL TEMPERA			LOCATION	INFORMATE	ON
ELEVATION		XE	HEAT FLUX HEAT LOS	S ELEVATION		XE		AT FLUX	H
(M)	(K)		M/W##5 M/W##5	(M)	(K)		W/	M**2	,
.013	570.6	.207	4.11E+04	.013	570.6	. 207		1E+04	
.051	593.6	.217	4.49E+04 3.97E+04	.051	593.6 578.3		4.4	19E+04	
.063	578.3 589.1	.225	4.12E+04	.089	589.1	.225	11 1	7E+04 2E+04	
.114	580.3	.231	4.03E+04	. 114	580.3	.231	4.0	3E+04	
. 140	570.8	.237	3.87E+04	. 140	570.8	.237	3.8	7E+04	
. 165	569.7 587.1	.242	3.87E+04 4.47E+04	. 165	569.7 587.1	.242		7E+04 7E+04	
.394	611.3	.299	5.64E+04	. 394	611.3	.299		4E+04	
.470	637.1	. 326	6.91E+04	.470	637.1	. 326	6.9	1E+04	
.546	669.6	. 356	7.45E+04	.546	669.6	. 356	7.4	5E+04	
.622	688.1	. 392	9.09E+04 8.86E+04	.622	688.1 731.9	. 392		19E+04 16E+04	
.698	731.9 769.2	.469	9.06E+04	.775	769.2	.469		6E+04	
.851	817.2	.507	9.03E+04	.851	817.2	.507	9.0	3E+04	
.927	838.7	,549	1.04E+05	.927	838.7	.549	1.0	4E+05	
1.003	849.7	.592	9.85E+04 7.41E+04	1.003	849.7	.592	9.8	5E+04	
1.067	905.5	.660	7.48E+04	1.156	905.5	.660		1E+04 8E+04	
1.232	883.7	.695	8.89E+04	1,232	883.7	.695		9E+04	
1.257	873.0	.707	8.78E+04	1,257	873.0	.707	8.7	8E+04	
1.321	903.0	. 734	6.39E+04	1.321	903.0	. 734		9E+04	
1.384	952.2 971.3	.757 .783	6.40E+04 6.04E+04	1.384	952.2 971.3	.757		0E+04 4E+04	
1.511	978.6	.800	5.51E+04	1.511	978.6	.800		1E+04	
1.562	975.8	.815	5.56E+04	1.562	975.8	.815	5.5	6E+04	
1.613	990.1	.831	5.33E+04	1.613	990.1	.831		3E+04	
1.689	1007.7	.852	4.72E+04 4.15E+04	1.689 1.765	1007.7	.852		2E+04	
1.816	1015.9	.882	3.65E+04	1.816	1015.9	.882		5E+04 5E+04	
1.867	995.7	.893	3.59E+04	1.867	995.7	.893	3.5	9E+04	
1.918	987.8	.903	3.60E+04	1.918	987.8	.903	3.6	0E+04	
1.994	964.5	.917	3.03E+04	1.994	964.5	.917	3.0	3E+04	

973.9

.921

3.01E+04

```
POINT SERIAL NO. 2125.091 (TIME= 139.50 SEC)
                                                                        POINT SERIAL NO. 2125.101 (TIME= 146.50 SEC)
(INFERRED VAPOR TEMP)
                                                                        (INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                                                                        LOOP PRESSURE (PE-3)
                                  16.03 MPA
                                                                                                           16.02 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                  611.6 K
                                                                        FCV TEMPERATURE (TE-FCV-11)
                                                                                                         611.7 K
LHP INLET ENTHALPY
                              1.577E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                      1.578E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                  7.06 MPA
                                                                             PRESSURE
                                                                                                           7.06 MPA
     SAT TEMP
                              559.55 K
                                                                             SAT TEMP
                                                                                                         559.55 K
     MASS FLUX
                                  30.07 KG/SEC-M**2
                                                                                                         30.20 KG/SEC-M**2
                                                                             MASS FLUX
     INLET QUALITY
                                   .204
                                                                             INLET QUALITY
                                                                                                            .204
     INLET ENTHALPY
                              1.577E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                      1.578E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONTS
     ELEVATION
                                   .769 M
                                                                             ELEVATION
                                                                                                            .866 M
     VELOCITY
                                  .0135 M/SEC
                                                                             VELOCITY
                                                                                                           .0142 M/SEC
                                   .435
     QUALITY
                                                                             QUALITY
                                                                                                           . 4444
NET LHP POWER TO FLUID
                                    0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                            0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                        (INTERRED VAPOR TEMP)
                      IV
ELEVATION
            DZQF
                              XE
                                    XA
                                                                        ELEVATION
                                                                                     DZQF
                                                                                              TV
                                                                                                      XE
                                                                                                             XA
 (M)
             (M)
                      (K)
                                                                          (M)
                                                                                     (M)
                                                                                              (K)
 1.537
             .768
                     714.0 .792 .598
                                                                         1.537
                                                                                     .671
                                                                                             680.0
                                                                                                    .783 .618
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                         XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                                                        ELEVALION
                                                                                      TEMP
                                                                                                 XE
                                                                                                           HEAT FLUX
                                                                                                                          HEAT LOSS
              (K)
                                    W/M##2
                                                  W/M##2
  (M)
                                                                          (M)
                                                                                       (K)
                                                                                                            W/M**2
                                                                                                                           W/M##2
                         .207
  .013
              567.7
                                   3.99E+04
                                                                          .013
                                                                                      564.8
                                                                                                 .207
                                                                                                            3.98E+04
  .051
              587.4
                         .216
                                   4.22E+04
                                                                          .051
                                                                                      582.0
                                                                                                 .216
                                                                                                            4.05E+04
  .063
              576.0
                         .219
                                   3.89E+04
                                                                          .063
                                                                                      574.1
                                                                                                  .219
                                                                                                            3.84E+04
              585.8
                         .224
  .089
                                   4.00E+04
                                                                          .089
                                                                                      583.0
                                                                                                  . 224
                                                                                                            3.93E+04
                                                                          . 114
                                   3.93E+04
  . 114
              577.6
                         .230
                                                                                      575.4
                                                                                                 .230
                                                                                                            3.89£+04
  . 140
              569.2
                         .236
                                   3.80E+04
                                                                          . 140
                                                                                      568.1
                                                                                                  . 235
                                                                                                            3.76E+04
                         .241
  . 165
              568.1
                                   3.81E+04
                                                                          . 165
                                                                                      567.0
                                                                                                 .241
                                                                                                            3.78E+04
              582.3
                                   4.07E+04
  .317
                         .275
                                                                                      578.9
                                                                          . 317
                                                                                                 .274
                                                                                                            3.99E+04
  . 394
                         .292
              605.3
                                   4.06E+04
                                                                                      601.5
                                                                                                 .291
                                                                                                            4.14E+04
                                                                          . 394
  .470
              610.4
                         . 311
                                   4.65E+04
                                                                          .470
                                                                                                 .309
                                                                                      602.6
                                                                                                            4.37E+04
                                   5.29E+04
  .546
              618.6
                         . 332
                                                                          .546
                                                                                      607.7
                                                                                                  . 328
                                                                                                            4.53E+04
                                   8.24E+04
  .622
              620.0
                         .361
                                                                          .622
                                                                                      592.0
                                                                                                  . 348
                                                                                                            4.52E+04
  .698
                         . 398
              646.1
                                   9.02E+04
                                                                                      623.0
                                                                          .698
                                                                                                 .370
                                                                                                           5.85E+04
                                                                          .775
  .775
              711.9
                         .438
                                   9.58E+04
                                                                                      634.3
                                                                                                  . 399
                                                                                                            7.83E+04
  .851
              785.0
                         .479
                                   9.59E+04
                                                                          . 851
                                                                                      713.3
                                                                                                  .435
                                                                                                            8.92E+04
  .927
              813.2
                         .525
                                   1.16E+05
                                                                          .927
                                                                                      773.8
                                                                                                            1.27E+05
                                                                                                  .481
              827.5
                                   9.35E+04
 1.003
                         .570
                                                                         1.003
                                                                                      173.1
                                                                                                  . 533
                                                                                                            1.16E+05
                         .600
 1.067
              810.2
                                   7.29E+04
                                                                         1.067
                                                                                      778.6
                                                                                                  .569
                                                                                                            8.60E+04
 1.156
              889.3
                         .637
                                   7.50E+04
                                                                         1.156
                                                                                      857.9
                                                                                                 .612
                                                                                                           8.81E+04
 1.232
              870.4
                         .672
                                   9.14E+04
                                                                         1.232
                                                                                      823.8
                                                                                                 .658
                                                                                                            1.26E+05
 1.257
              857.3
                         .685
                                   9.11E+04
                                                                         1.257
                                                                                      812.4
                                                                                                  .675
                                                                                                            1.12E+05
                         . /14
 1.321
              890.2
                                   6.86E+04
                                                                         1.321
                                                                                      865.2
                                                                                                  .707
                                                                                                            6.77E+04
                         .738
 1.384
              939.8
                                   6.58E+04
                                                                         1.384
                                                                                      916.4
                                                                                                  .731
                                                                                                            6.68E+04
                         .766
              960.8
                                   6.52E+04
 1,460
                                                                         1.460
                                                                                      939.5
                                                                                                  . 758
                                                                                                            6.19E+04
                         .784
                                                                                                 .775
 1.511
              970.0
                                   6.01E+04
                                                                         1.511
                                                                                      950.4
                                                                                                            5.77E+04
              969.0
                         .801
                                   5.87E+04
                                                                                                 . 792
 1.562
                                                                         1.562
                                                                                      951.5
                                                                                                            5.91E+04
                         .817
              984.0
                                   5.60E+04
 1.613
                                                                         1.613
                                                                                      968.3
                                                                                                 .808
                                                                                                            5.68E+04
 1.689
             1005.8
                         .840
                                   4.83E+04
                                                                         1.689
                                                                                      995.9
                                                                                                            5.17E+04
                                                                                                 .831
 1.765
              1017.4
                         .859
                                   4.19E+04
                                                                         1.765
                                                                                      1012.6
                                                                                                            4.34E+04
                                                                                                 .852
 1.816
             1017.3
                         .870
                                   3.84E+04
                                                                                                 .863
                                                                         1.816
                                                                                      1013.5
                                                                                                            3.89E+04
 1.867
              998.5
                         .881
                                   3.83E+04
                                                                         1.867
                                                                                      995.9
                                                                                                 .875
                                                                                                            4.06E+04
 1,918
              990.5
                         .892
                                   3.88E+04
                                                                         1.918
                                                                                      987.9
                                                                                                 .886
                                                                                                            4.07E+04
 1.994
              970.1
                         .908
                                    3.23E+04
                                                                         1.994
                                                                                      972.6
                                                                                                  .903
                                                                                                            3.56E+04
```

2.070

978.0

.918

3.41E+04

979.8

.929

```
POINT SERIAL NO. 2125.111 (TIME= 149.50 SEC)
                                                                         POINT SERIAL NO. 2125.121 (TIME= 151.50 SEC)
                                                                         (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                                                            16.01 MPA
                                   16.04 MPA
                                                                         LOOP PRESSURE(PE-3)
LOOP PRESSURE (PE-3)
                                                                         FCV TEMPERATURE (TE-FCV-1T)
                                                                                                         611.6 K
FCV TEMPERATURE (TE-FCV-11)
                                  611.6 K
                                                                                                        1.577E+06 J/KG
                                                                         LHP INLET ENTHALPY
THP INLET ENTHALPY
                              1.577E+06 J/KG
                                                                         TEST SECTION:
TEST SECTION:
                                                                                                             7.07 MPA
                                   7.07 MPA
                                                                              PRESSURE
     PRESSURE
                                                                                                           559.58 K
                                                                              SAT TEMP
     SAT TEMP
                                 559.60 K
                                                                                                          30.27 KG/SEC-M**2
                                30.34 KG/SEC-M**2
                                                                              MASS FLUX
     MASS FLUX
     INLET QUALITY
                                                                              INLET QUALITY
                                                                                                              .204
                                    .204
                                                                                                        1.577E+06 J/KG
                              1.577E+06 J/KG
                                                                              INLET ENTHALPY
     INLET ENTHALPY
                                                                         QUENCH FRONT:
QUENCH FRONT:
                                                                              ELEVATION
                                                                                                              .994 M
     ELEVATION
                                    .938 M
                                                                              VELOCITY
                                                                                                             .0232 M/SEC
     VELOCITY
                                   .0359 M/SEC
                                                                              QUALITY
                                                                                                             .499
                                   .476
     QUALITY
                                    0.0 W
                                                                         NET LHP POWER TO FLUID
                                                                                                              0.0 W
NET LHP POWER TO FLUID
                                                                         VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
             DZQF
                                                                         ELEVATION
                                                                                      DZQF
                                                                                                TV
                                                                                                         XE
                                                                                                               XA
ELEVATION
                                     XA
                                                                           (M)
                                                                                      (M)
                                                                                                (K)
 (M)
             (M)
                      (K)
                                                                          1.537
                                                                                      .543
                                                                                               655.0
                                                                                                       .759 .621
 1.537
             .598
                     665.0
                             .792 .638
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                  HEAT LOSS
                                                                         ELEVATION
                                                                                        TEMP
                                                                                                   XE
                                                                                                           HEAT FLUX
                                                                                                                            HEAT LOSS
ELEVATION
              TEMP
                          XE
                                    HEAT FLUX
                                    W/M##2
                                                   W/M##2
                                                                           (M)
                                                                                        (K)
                                                                                                              W/M##2
                                                                                                                             W/M##2
  (M)
               (K)
                                                                           .013
                                                                                        562.9
                                                                                                   .207
                                                                                                              3.96E+04
                                    4.01E+04
  .013
              563.8
                         .207
                         .215
                                                                           .051
                                                                                                   .215
                                                                                                              3.99E+04
  .051
              581.5
                                    4.00E+04
                                                                                        580.8
                                                                           .063
                                                                                        573.0
                                                                                                   .218
                                                                                                              3.84E+04
              573.4
                         .218
                                    3.82E+04
  .063
                                                                           .089
                                                                                        581.5
                                                                                                   .224
                                                                                                              3.90E+04
                         .224
                                    3.90E+04
  .089
              582.0
                                                                                                   .229
              574.5
                         ,229
                                    3.86E+04
                                                                           . 114
                                                                                        574.1
                                                                                                              3.87E+04
  . 114
                                                                           . 140
                                                                                        567.5
                                                                                                   .235
                                                                                                              3.77E+04
                          .235
                                    3.74E+04
  . 140
              567.7
                                                                                                             3.77E+04
  .165
                         .240
                                                                           . 165
                                                                                        566.4
                                                                                                   .240
              566.6
                                    3.77E+04
                                                                                                   .273
                         .273
                                    3.96E+04
                                                                           .317
                                                                                        577.0
                                                                                                              3.96[+04
  .317
              577.6
                                                                           . 394
                                                                                                   .290
                                    4.13E+04
                                                                                        598.7
                                                                                                              4.12E+04
  . 394
                          .290
              599.7
                         . 308
                                    4.27E+04
                                                                           .470
                                                                                        598.8
                                                                                                   . 308
                                                                                                              4.24E+04
              600.1
  .470
  .546
                          .326
                                    4.39E+04
                                                                           .546
                                                                                        603.1
                                                                                                   .327
                                                                                                              4.37E+04
              604.4
                          . 345
                                                                           .622
                                                                                        587.8
                                                                                                   . 345
                                                                                                              4.29E+04
  .622
              588.7
                                    4.30E+04
                                                                                                   . 365
                          . 365
                                    5.05E+04
                                                                           .698
                                                                                        613.6
                                                                                                              5.04E+04
  .698
              615.3
                                                                                                   . 389
              612.3
                          .387
                                    5.54E+04
                                                                           .775
                                                                                        611.9
                                                                                                              6.00E+04
  .775
              658.1
                          .418
                                    8.75E+04
                                                                           .851
                                                                                        647.5
                                                                                                   .418
                                                                                                              7.71E+04
  .851
                          .468
                                    1.46E+05
                                                                           .927
                                                                                        677.5
                                                                                                   .458
                                                                                                              1.09E+05
  .927
              716.4
                                                                                                   .504
                                                                          1.003
                                    1.29E+05
                                                                                        738.2
                                                                                                              1.07E+05
 1.003
              771.4
                          .526
                                    9.10E+04
                                                                                                   .540
                                                                                                              9.53E+04
              768.7
                          .565
                                                                          1.067
                                                                                        757.1
 1.067
                         .611
                                                                                                   .591
 1.156
              844.2
                                    9.15E+04
                                                                          1.156
                                                                                        836.6
                                                                                                              1.07E+05
 1.232
              802.4
                          .662
                                    1.51E+05
                                                                          1.232
                                                                                        772.0
                                                                                                   .643
                                                                                                              1.37E+05
              792.3
                          .682
                                    1.26E+05
                                                                          1.257
                                                                                        769.8
                                                                                                   .660
                                                                                                              1.02E+05
 1.257
                                                                          1.321
                                                                                        851.1
                                                                                                   .689
                                                                                                              6.04E+04
 1.321
              854.4
                          .716
                                    6.52E+04
                                    6.63E+04
                                                                                        902.3
                                                                                                              6.10E+04
 1.384
              906.2
                          .739
                                                                          1.384
                                                                                                   .710
                                                                                                              5.75E+04
 1.460
              931.0
                          .766
                                    6.20E+04
                                                                          1.460
                                                                                        927.7
                                                                                                   .736
                                                                                        939.5
                                                                                                   .751
                                                                                                             5.35E+04
 1.511
              942.8
                          . 784
                                    5.86E+04
                                                                          1.511
                                                                                        940.3
                                                                                                   .767
                                                                                                             5.62E+04
 1.562
              944.6
                          .801
                                    6.08E+04
                                                                          1.562
                         .817
                                                                                                   . 783
                                    5.65E+04
                                                                          1.613
                                                                                        958.7
                                                                                                              5.35E+04
 1.613
              962.5
                          .841
 1.689
              991.6
                                    5.36E+04
                                                                          1.689
                                                                                        988.4
                                                                                                   .805
                                                                                                              5.01E+04
                                                                                                   .825
                                                                                                              4.40E+04
 1.765
              1011.4
                          .862
                                    4.60E+04
                                                                          1.765
                                                                                       1008.7
                                                                                                              3.99E+04
                          .874
                                    4.12E+04
                                                                                       1010.5
                                                                                                   .837
 1.816
             1013.1
                                                                          1.816
                                                                                                   .848
                                    4.04E+04
                                                                          1.867
                                                                                       993.8
                                                                                                              4.09E+04
 1.867
              995.5
                          .886
 1.918
              987.8
                          .897
                                    4.05E+04
                                                                          1.918
                                                                                        985.9
                                                                                                   .860
                                                                                                              4.04E+04
                          .914
                                    3.61E+04
                                                                          1.994
                                                                                        972.9
                                                                                                   .876
                                                                                                              3.63E+04
 1.994
              973.8
                                    3.49E+04
                                                                                                   .892
                                                                                                              3.46E+04
```

2.070

.901

1.69E+04

```
POINT SERIAL NO. 1138.011 (TIME= 30.50 SEC)
                                                                      POINT SERIAL NO. 1138.021 (TIME= 34.50 SEC)
(INFERRED VAPOR TEMP)
                                                                      (INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                15.92 MPA
                                                                      LOOP PRESSURE ( PE-3)
                                                                                                       15.93 MPA
                            616.0 K
FCV TEMPERATURE ( IE-FCV-1T)
                                                                      FCV TEMPERATURE ( TE-FCV-11)
                                                                                                    616.1 K
LHP INLET ENTHALPY
                            1.614E+06 J/KG
                                                                      LHP INLET ENTHAL PY
                                                                                                 1.614E+06 J/KG
TEST SECTION:
                                                                      TEST SECTION:
                                 7.01 MPA
    PRESSURE
                                                                          PRESSURE
                                                                                                        7.01 MPA
    SAT TEMP
                                559.02 K
                                                                          SAT TEMP
                                                                                                   559.02 K
    MASS FLUX
                                43.24 KG/SEC-M**2
                                                                          MASS FLUX
                                                                                                   43.29 KG/SEC-M**2
    INLET QUALITY
                                 .230
                                                                          INLET QUALITY
                                                                                                      .230
                          1.614E+06 J/KG
    INLET ENTHALPY
                                                                          INLET ENTHALPY
                                                                                                   1.6141+06 J/KG
QUENCH FRONT:
                                                                      QUENCH FRONT:
    ELEVATION
                                  . 194 M
                                                                          ELEVATION
                                                                                                        .285 M
    VELOCITY
                                 .1659 M/SEC
                                                                          VELOCITY
                                                                                                       .0117 M/SEC
                                 . 314
    QUALITY
                                                                          QUALITY
                                                                                                       .332
NET LHP POWER TO FLUID
                                  0.0 W
                                                                     NET LHP POWER TO FLUID
                                                                                                        0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                      (INFERRED VAPOR TEMP)
                     TV
ELEVATION
            DZQF
                             XE
                                  XA
                                                                      ELEVATION
                                                                                  DZQF
                                                                                           TV
                                                                                                   XE
                                                                                                         XA
 (M)
            (M)
                     (K)
                                                                       (M)
                                                                                   (M)
                                                                                           (K)
1.232
           1.038
                    765.0
                           .706 .502
                                                                      1.232
                                                                                  .947
                                                                                          740.0
                                                                                                  .664 .485
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP
                     XE
                              HEAT FLUX
                                             HEAT LOSS
                                                                     ELEVATION
                                                                                   TEMP
                                                                                           XE HEAT FLUX
                                                                                                                     HEAT LOSS
 (M)
             (K)
                                   W/M##2
                                                W/M##2
                                                                      (M)
                                                                                    (K)
                                                                                                        W/M##2
                                                                                                                       W/M##2
  .013
                                 4.10E+04
             607.2
                        .232
                                                                        .013
                                                                                   603.2
                                                                                              .232
                                                                                                        3.86E+04
                                                                                   645.6
  .051
             653.4
                        .239
                                  6.08E+04
                                                                        .051
                                                                                              .239
                                                                                                        5.57E+04
                        .242
                                                                                              .242
  .063
             603.2
                                 4.52E+04
                                                                        .063
                                                                                   598.9
                                                                                                        4.08E+04
                        . 248
  .089
             641.5
                                 6.70E+04
                                                                        .089
                                                                                   622.7
                                                                                              .246
                                                                                                       5.69E+04
  . 114
             650.2
                        .258
                                 1.46E+05
                                                                        .114
                                                                                   614.5
                                                                                              .254
                                                                                                       1.04E+05
  . 140
             678.4
                        .277
                                  2.31E+05
                                                                       . 140
                                                                                   594.7
                                                                                              .267
                                                                                                        1.54E+05
                                 2.00E+05
                                                                                   596.7
  . 165
             635.7
                        .298
                                                                       . 165
                                                                                              .281
                                                                                                        1.34E+05
                        .383
  .317
             807.2
                                  8.49E+04
                                                                        . 317
                                                                                   792.2
                                                                                              . 346
                                                                                                        8.24E+04
  . 394
             876.1
                        .413
                                  1.13E+05
                                                                        . 394
                                                                                   856.1
                                                                                              . 375
                                                                                                        1.11E+05
  .470
             909.6
                        .447
                                  1.19E+05
                                                                        .470
                                                                                   889.2
                                                                                              .408
                                                                                                        1.14E+05
  .546
             934.0
                        .482
                                  1.13E+05
                                                                        .546
                                                                                   914.7
                                                                                              . 441
                                                                                                        1.09E+05
  .622
             944.3
                        .515
                                  1.10E+05
                                                                        .622
                                                                                   924.8
                                                                                              .474
                                                                                                        1.10E+05
             966.8
                                  1.03E+05
  .698
                        .547
                                                                       .698
                                                                                   948.8
                                                                                              .506
                                                                                                        1.05E+05
  .775
                        .577
             975.5
                                 9.89E+04
                                                                       .775
                                                                                   959.1
                                                                                              .536
                                                                                                        9.90E+04
  .851
                        .605
             988.7
                                 8.75E+04
                                                                       .851
                                                                                   974.8
                                                                                              . 564
                                                                                                        8.73E+04
  .927
             996.3
                                 9.04E+04
                                                                                   982.1
                        .631
                                                                        .927
                                                                                              .590
                                                                                                        8.81E+04
                        .658
 1.003
             981.6
                                 8.66E+04
                                                                      1.003
                                                                                   968.6
                                                                                              .616
                                                                                                        8.38E+04
 1.079
             946.3
                                                                                              .637
                        .680
                                 6.07E+04
                                                                      1.079
                                                                                   938.3
                                                                                                        5.94E+04
                        .693
 1.143
             889.1
                                 4.95E+04
                                                                      1.143
                                                                                   883.2
                                                                                              .651
                                                                                                        4.91E+04
                        .700
 1.181
             827.3
                                 3.70E+04
                                                                      1.181
                                                                                   823.9
                                                                                              .657
                                                                                                        3.71E+04
 1.245
             843.0
                        .711
                                  5.51E+04
                                                                      1.245
                                                                                   834.6
                                                                                              .669
                                                                                                        5.63E+04
 1.308
             898.3
                        .727
                                  7.56E+04
                                                                      1.308
                                                                                   886.4
                                                                                              .685
                                                                                                        7.50E+04
 1.384
             985.6
                        .752
                                  8.89E+04
                                                                                              .709
                                                                      1.384
                                                                                   972.3
                                                                                                        8.47E+04
                        .778
 1.461
             985.8
                                  8.37E+04
                                                                      1.461
                                                                                   973.8
                                                                                              .733
                                                                                                        7.74E+04
 1.511
             986.4
                        . 794
                                  7.70E+04
                                                                      1.511
                                                                                   975.5
                                                                                              .748
                                                                                                        7.15E+04
             990.8
 1.562
                        .809
                                  7.62E+04
                                                                                              .762
                                                                      1.562
                                                                                   980.1
                                                                                                        7.12E+04
                        .823
 1.613
             999.6
                                  6.91E+04
                                                                                              .775
                                                                      1.613
                                                                                   990.6
                                                                                                        6.33E+04
             994.0
                        .843
 1.689
                                  6.08E+04
                                                                      1.689
                                                                                   987.3
                                                                                              .793
                                                                                                        5.46E+04
 1.765
             981.9
                        .860
                                  5.35E+04
                                                                      1.765
                                                                                   976.0
                                                                                              .808
                                                                                                        5.04E+04
 1.816
             960.4
                        .870
                                  4.71E+04
                                                                      1.816
                                                                                   955.9
                                                                                              .818
                                                                                                        4.39E+04
 1.867
             935.8
                        .878
                                  3.98E+04
                                                                      1.867
                                                                                   932.5
                                                                                              .826
                                                                                                        3.75E+04
 1.918
             908.0
                        .886
                                  3.26E+04
                                                                      1.918
                                                                                   906.7
                                                                                              .833
                                                                                                        2.94E+04
 1.994
             889.8
                        .894
                                  2.57E+04
                                                                      1,994
                                                                                   890.2
                                                                                              . 840
                                                                                                        2.18E+04
 2.070
```

2.070

851.9

.846

1.49E+04

1.384

1.461

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

865.9

950.1

953.4

957.7

962.6

975.7

976.6

966.6

949.2

927.5

905.5

892.0

855.7

```
INEL POST-CHE EXPERIMENT NO. 138
POINT SERIAL NO. 1138.031 (TIME= 38.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                   15.92 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                   616.2 K
LHP INLET ENTHALPY
                               1.615E+06 J/KG
TEST SECTION:
     PRESSURE
                                    7.01 MPA
     SAT TEMP
                                  559.02 K
     MASS FLUX
                                   43.23 KG/SEC-M**2
     INLET QUALITY
                                    .231
     INLET ENTHALPY
                               1.615E+06 J/KG
QUENCH FRONT:
     ELEVATION
                                    .332 M
     VELOCITY
                                   .0117 M/SEC
     QUALITY
                                   .299
NET LHP POWER TO FLUID
                                    0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
             DZQF
ELEVATION
 (M)
             (M)
                      (K)
1.232
             .900
                     715.0 .610 .460
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                          XE
                                   HEAT FLUX
                                                  HEAT LOSS
 (M)
               (K)
                                    W/M##2
                                                   W/M**2
 .013
              596.8
                         .232
                                   3.45E+04
 .051
              633.0
                         .239
                                   4.85E+04
 .063
              592.4
                         .241
                                   3.41E+04
  .089
              611.6
                         .244
                                   4.23E+04
              598.6
 . 114
                         .249
                                   4.44E+04
 . 140
              583.7
                         .253
                                   4.51E+04
 . 165
              581.8
                         .257
                                   3.85E+04
 .317
              714.7
                         .293
                                   8.12E+04
 . 394
              821.2
                         . 325
                                   1.32E+05
 .470
              855.6
                         .360
                                   1.06E+05
 .546
             882.2
                         . 392
                                   1.04E+05
 .622
              891.3
                         .423
                                   1.09E+05
 .698
             918.0
                         . 455
                                   1.02E+05
 . 775
             930.6
                         .484
                                   9.61E+04
 .851
             950.6
                         .512
                                   8.62E+04
 .927
             957.9
                         .537
                                   8.53E+04
1.003
             945.5
                         .562
                                   8.26E+04
1.079
             924.5
                         .583
                                   5.79E+04
1.143
             872.8
                         .597
                                   4.95E+04
1.181
             817.3
                         .603
                                   3.96E+04
1.245
             819.8
                         .616
                                   6.16E+04
```

.633

. 655

.678

.692

.706

.719

.735

.750

. 758

.765

.771

.777

.781

7.42E+04

7.87E+04

7.46E+04

6.70E+04

6.78E+04

6.10E+04

5.03E+04

4.55E+04

3.75E+04

3.43E+04

2.35E+04

1.58E+04

1.20E+04

POINT SERI	AL NO. 1	138.041 (TIME= 42.50 SE	CI
(INFERRED		P)		
LOOP PRESSI			15.92 MPA	
FCV TEMPERA			616.2 K	
LHP INLET			1.616E+06 J/KG	
TEST SECTION				
PRESSI			7.01 MPA	
SAT II			559.01 K	
MASS			43.10 KG/SE	C-F***5
	QUALITY		.231	
QUENCH FROM	ENTHALPY		1.616E+06 J/KG	
ELEVA)			Land of the	
VELOCI			.397 M	
QUALIT			.0213 M/SEC	
NET LHP PON		HD	.310	
are car ion	ICH TO TEC	110	0.0 W	
VAPOR TEMPE	RATURE ME	ASUREMENT I	OCATION INFORM	ATION
(INFERRED V	APOR TEMP)	CONTTON THE ONLY	ATTON
ELEVATION	DZQF		(E XA	
(M)	(M)	(K)	7.74	
1.232	.835	670.0 .6	04 .483	
waste wastern				
WALL TEMPER	ATURE MEA	SUREMENT LO	CATION INFORMA	TION
ELEVATION	TEMP	XE.	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M**2
.013	591.3	0.2.2		
.051	621.2	.233	3.16E+04	
.063	587.4	.238	4.30E+04	
.089	603.4	.243	3.03E+04	
. 114	590.8	.247	3.52E+04	
.140	576.9	.250	3.31E+04	
. 165	576.3	.253	3.08E+04	
.317	616.0	.282	2.93E+04 6.65E+04	
. 394	709.1	. 309	1.15E+05	
.470	820.5	. 345	1.26£+05	
.546	847.3	. 383	1.27E+05	
.622	853.6	.417	1.05E+05	
. 698	884.1	. 448	9.791+04	
.775	898.7	.477	9.52E+04	
.851	923.9	.503	8.43E+04	
.927	931.2	.529	8.45E+04	
1.003	920.6	.553	7.93E+04	
1.079	909.1	.574	5.73E+04	
1.143	860.6	.587	4.95E+04	
1.181	809.2	. 594	4.11E+04	4.51E+62
1.245	801.9	.614	1.26E+05	
1.308	843.6	.639	6.85E+04	
1.384	927.1	.660	7.16E+04	
1.461	933.4	.680	6.37E+04	
1.511	941.1	.692	5.45E+04	
1.562	945.2	.703	5.60E+04	
1.689	961.4	. 713	4.91E+04	
1.765	966.2	.727	4.13E+04	
1.816	958.3	. 738	3.68E+04	
1.867	923.2	.745	3.06E+04	
1.918	905.8	.751	3.02E+04	
1.994	895.8	.761	1.97E+04	
2.070	861.0	.764	1.26E+04	
-1010	001.0	. 104	1.01E+04	

865.3

.772

1.06E+04

```
POINT SERIAL NO. 1138.051 (TIME= 46.50 SEC)
                                                                      POINT SERIAL NO. 1140.040 (TIME= 95.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                               15.91 MPA
                                                                      LOOP PRESSURE(PE-3)
                                                                                                       15.43 MPA
                                                                                                    585.0 K
                            616.2 K
FCV TEMPERATURE (TE-FCV-1T)
                                                                      FCV TEMPERATURE (TE-FCV-1T)
LHP INLET ENTHALPY
                           1.616E+06 J/KG
                                                                      LHP INLET ENTHALPY
                                                                                                   1.405E+06 J/KG
TEST SECTION:
                                                                      TEST SECTION:
     PRESSURE
                                 7.01 MPA
                                                                           PRESSURE
                                                                                                       7.00 MPA
                                                                                                   558.98 K
24.81 KG/SEC-M**2
                            559.02 K
    SAT TEMP
                                                                          SAT TEMP
                                                                          MASS FLUX
                            43.12 KG/SEC-M**2
.231
    MASS FLUX
    INLET QUALITY
                                                                          INLET QUALITY
                                                                                                        .091
    INLET ENTHALPY
                            1.616E+06 J/KG
                                                                           INLET ENTHALPY
                                                                                                   1.405E+06 J/KG
QUENCH FRONT:
                                                                      QUENCH FRONT:
    ELEVATION
                                  .504 M
                                                                          ELEVATION
                                                                                                         .703 M
    VELOCITY
                                .0305 M/SEC
                                                                          VELOCITY
                                                                                                       .0130 M/SEC
    QUALITY
                                 . 349
                                                                                                        .263
                                                                          YTIJAUQ
NET LHP POWER TO FLUID
                                  0.0 W
                                                                      NET LHP POWER TO FLUID
                                                                                                         0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                      ELEVATION DZQF
                                                                                         IV
                                                                                                   XE XA
ELEVATION DZQF
                             XE XA
                                                                       (M)
                                                                                   (M)
                                                                                           (K)
 (M)
            (M)
                     (K)
                                                                      1.232
                                                                                  .529
                                                                                        762.0 .535 .381
1.232
            .728
                    630.0 .599 .511
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      ELEVATION
                                                                                   TEMP
                                                                                           XE
                                                                                                        HEAT FLUX
                                                                                                                      HEAT LOSS
                     XE
ELEVATION
             TEMP
                                  HEAT FLUX
                                              HEAT LOSS
                                                                                                         W/M##2
                                                                       (M)
                                                                                    (K)
                                                                                                                        W/M**2
 (M)
                                   W/M##2
              (K)
                                                W/M##2
                                                                       .013
                                                                                   573.9
                                                                                              .092
                                                                                                        1.64E+04
 .013
             587.9
                        .232
                                  2.97E+04
                                                                       .051
                                                                                    583.0
                                                                                              .097
                                                                                                        1.88E+04
 .051
             613.7
                                  3.99F+04
                        .238
                                                                        .063
                                                                                    572.3
                                                                                              .099
                                                                                                        1.59E+04
  .063
             584.6
                        .239
                                  2.84E+04
                                                                        .089
                                                                                              . 101
                                                                                    581.4
                                                                                                        1.68E+04
  .089
             598.9
                        .242
                                                                       . 114
                                  3.19E+04
                                                                                    573.0
                                                                                              . 104
                                                                                                        1.62E+04
  . 114
             587.0
                        .245
                                  3.00E+04
                                                                       . 140
                                                                                              . 107
                                                                                    566.6
                                                                                                        1.51E+04
                        .248
  .140
             574.1
                                  2.72E+04
                                                                       . 165
                                                                                    565.4
                                                                                              .110
                                                                                                        1.51E+04
                        .251
 . 165
             573.9
                                  2.71E+04
                                                                       .317
                                                                                   585.1
                                                                                              .127
                                                                                                        1.87E+04
 .317
             605.9
                        .275
                                  5.44E+04
                                                                       . 394
                                                                                   609.9
                                                                                              . 137
                                                                                                        2.00E+04
 .394
             633.4
                        .297
                                  8.85E+04
                                                                        .470
                                                                                   623.3
                                                                                              . 150
                                                                                                        2.77E+04
                        .329
  .470
             703.6
                                  1.30E+05
                                                                                              . 168
                                                                       .546
                                                                                   647.1
                                                                                                        4.26E+04
  .546
             799.1
                        .373
                                  1.60E+05
                                                                       .622
                                                                                   635.0
                                                                                              .202
                                                                                                        9.02E+04
 .622
             826.0
                        .412
                                  1.01E+05
                                                                       .698
                                                                                   779.2
                                                                                              .260
                                                                                                        1.30E+05
 .698
             859.7
                        . 441
                                  9.34E+04
                                                                       .775
                                                                                   882.8
                                                                                              . 332
                                                                                                        1.50E+05
 .775
             874.7
                        .469
                                 9.39E+04
                                                                        .851
                                                                                   953.6
                                                                                              .402
                                                                                                        1.18E+05
 .851
             903.5
                        .495
                                 8.428+04
                                                                                              . 453
                                                                        .927
                                                                                   999.0
                                                                                                        7.86E+04
  .927
             910.5
                        .521
                                  8.64E+04
                                                                      1.003
                                                                                   1018.5
                                                                                              .488
                                                                                                        5.68E+04
1.003
             901.2
                        .546
                                  8.01E+04
                                                                      1.079
                                                                                   978.8
                                                                                              .510
                                                                                                        2.95E+04
1.079
             897.2
                        .567
                                  5.99E+04
                                                                                   935.7
                                                                      1.143
                                                                                              .522
                                                                                                        2.26E+04
1.143
             851.2
                                  5.20E+04
                        .581
                                                                      1.181
                                                                                              .528
                                                                                   872.8
                                                                                                        2.22E+04
1.181
             801.9
                        .588
                                  4.33E+04
                                               1.66E+03
                                                                      1.244
                                                                                   883.7
                                                                                              .537
                                                                                                        2.14E+04
1.245
             735.8
                        .614
                                  1.66E+05
                                                                      1.308
                                                                                              .546
                                                                                   949.4
                                                                                                        1.92E+04
1.308
             827.8
                        .643
                                  6.72E+04
                                                                      1.384
                                                                                   1029.0
                                                                                              .555
                                                                                                        1.52E+04
1.384
             911.2
                        .663
                                  6.91E+04
                                                                      1.460
                                                                                   1050.0
                                                                                              .562
                                                                                                        1.14E+04
1.461
             919.0
                        .683
                                  6.66E+04
                                                                      1.511
                                                                                   1041.6
                                                                                                        7.79E+03
                                                                                              .565
1.511
             930.0
                        .696
                                  5.71E+04
                                                                      1.562
                                                                                   1043.4
                                                                                               .567
                                                                                                        5.93E+03
1.562
             933.7
                        .707
                                  5.80E+04
                                                                      1.613
                                                                                   1037.9
                                                                                              .569
                                                                                                        3.88E+03
1.613
             952.1
                        .718
                                  5.19E+04
                                                                      1.689
                                                                                   1015.9
                                                                                              .570
                                                                                                        1.41E+03
                        .733
1.689
             959.6
                                  4.49E+04
                                                                      1.765
                                                                                   977.8
                                                                                              .571
                                                                                                       -1.00E+02
1.765
             953.6
                        .745
                                  3.74E+04
                                                                                   930.7
                                                                      1.816
                                                                                                        7.94E+02
                                                                                              .571
1.816
             941.3
                        .752
                                  3.17E+04
                                                                      1.867
                                                                                   857.7
                                                                                              .572
                                                                                                        7.91E+03
1.867
             920.7
                        .758
                                  3.14E+04
                                                                      1.918
                                                                                              .575
                                                                                   832.6
                                                                                                        9.85E+03
             906.8
                        .764
1.918
                                  2.19E+04
                                                                      1.994
                                                                                   800.4
                                                                                              .580
                                                                                                        8.84E+03
                       .769
1.994
             899.2
                                 1.38E+04
                                                                      2.070
                                                                                   756.5
                                                                                              .585
                                                                                                        1.02E+04
```

HEAT LOSS W/M**2

THE FERRED VAPOR TEMP	POINT SE	RIAL NO. 11	40.051	(TIME= 10	0.50 SEC)	POINT SERIAL	NO. 1	140.060	(TIME= 107	.50 SEC)
PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP MASS FLUX PRESSURE S	(INFERRE	D VAPOR TEMP)				LOOP OFFECUE	C (DF - 2)		16 22	MPA	
PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP MASS FLUX PRESSURE S	LOOP PRE	SSURE(PE-3)	O14 . T.	15.4	2 MPA		LOOP PRESSUR	CELPE-31	ECV-1T1	595 2	MFA	
PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP MASS FLUX PRESSURE S	FCV TEMP	ENATURE (IE-1	CA-11)	1 1005540	I K		LUD INIET CH	THAL PY	104-11)	1 4075+06	1/KG	
PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP SOLUTION MASS FLUX PRESSURE SAT TEMP MASS FLUX PRESSURE S	LHP INLE	I ENTHALPY		1.406E+0	16 J/KG		THE INLET EN	IHALFY		1.4071.400	3/10	
ELEVATION 774 M ELEVATION 787 M CURLOTITY 0.0150 M/SEC QUALITY 0.0150 M/SEC QUALITY 0.0142 M/SEC	TEST SEC	TION:		7.0								
ELEVATION 774 M ELEVATION 787 M CURLOTITY 0.0150 M/SEC QUALITY 0.0150 M/SEC QUALITY 0.0142 M/SEC	PRE	SSURE		550.0	MPA		PRESSUR	AD.		550 04	K	
ELEVATION 774 M ELEVATION 787 M CURLOTITY 0.0150 M/SEC QUALITY 0.0150 M/SEC QUALITY 0.0142 M/SEC	SAI	TEMP		224.0	Z VELLER	HARO	SAI IEP	HV.		24 18	WC/SEC	-M**2
ELEVATION 774 M ELEVATION 787 M CURLOTITY 0.0150 M/SEC QUALITY 0.0150 M/SEC QUALITY 0.0142 M/SEC	MAS	S FLUX		24.5	17 KU/SEC	-M2	MASS FE	WALLEY		002	NO) SEC	
ELEVATION 774 M ELEVATION 787 M CURLOTITY 0.0150 M/SEC QUALITY 0.0150 M/SEC QUALITY 0.0142 M/SEC	IPEL	ET QUALITY		1 005540	C LIVE		INIET	NTHALPY		1 4075+06	17KG	
ELEVATION 774 M ELEVATION 787 M CURLOTITY 0.0150 M/SEC QUALITY 0.0150 M/SEC QUALITY 0.0142 M/SEC	OHENCH	PONT		1.4001.70	10 J/KU		ONENCH EBONI	MINMET		1.4076.00	J/ NO	
VELOCITY O.10 VELOCITY	QUENCH F	WATLON		2.7	the Mar		FI FVAT					
QUALITY .265 QUALITY .286 O.0 W NET LHP POWER TO FLUID 0.0 W NET LHP POWER				015	6 M/SEC							
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .456 710.0 .531 .403 MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) (M) (K) 1.332 .355 697.6 .493 .380 MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) (M) (K) (M) (K) 1.33 572.6 .093 1.59E+04 .063 570.1 .094 1.56E+04 .063 570.1 .099 1.54E+04 .065 .50E+04 .065 .50E+							OHALLTY					
Company Comp			IID				NET LHP POWE		UID			
Company Comp	VAPOR TE	MPERATURE ME	ASUREMENT	LOCATION	INFORMA	TION	VAPOR TEMPER	RATURE M	EASUREMENT	LOCATION	INFORMAT	TION
ELEVATION CAP TV KE KA (M) (K) (L)	LINEERRE	D VAPOR TEMP	2)									
Mall temperature measurement location information ELEVATION TEMP XE HEAT FLUX HEAT LOSS M/M***2 W/M***2 W/M**2 W/M***2				XE XA					(K)			
1.232	The same of the sa							*****				
MALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP (M) (K)	4.74		4.00				1.232	. 355	697.6	.493 .380		
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX M/M**2 M/M	1.232	.458	710.0	.531 .40	3							
ELEVATION (K)										LOCATION I	NEORMAT	
013 572.6 .093 1.59E+04 .051 577.3 .098 1.69E+04 .051 577.3 .098 1.69E+04 .051 580.3 .097 1.79E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .069 578.2 .102 1.60E+04 .089 579.8 .102 1.58E+04 .114 570.3 .105 1.57E+04 .114 571.8 .104 1.59E+04 .140 565.4 .108 1.47E+04 .140 566.0 .107 1.48E+04 .180 565.4 .108 1.47E+04 .165 564.1 .110 1.48E+04 .165 564.1 .110 1.48E+04 .165 564.1 .110 1.48E+04 .180 .165 564.1 .110 1.48E+04 .180 .180 .180 .180 .180 .180 .180 .180						ION			XE			HEAT
013 572.6 .093 1.59E+04 .051 577.3 .098 1.69E+04 .051 577.3 .098 1.69E+04 .051 580.3 .097 1.79E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .069 578.2 .102 1.60E+04 .089 579.8 .102 1.58E+04 .114 570.3 .105 1.57E+04 .114 571.8 .104 1.59E+04 .140 565.4 .108 1.47E+04 .140 566.0 .107 1.48E+04 .180 565.4 .108 1.47E+04 .165 564.1 .110 1.48E+04 .165 564.1 .110 1.48E+04 .165 564.1 .110 1.48E+04 .180 .165 564.1 .110 1.48E+04 .180 .180 .180 .180 .180 .180 .180 .180			XE			HEAT LOSS	(M)	(K)		W/M	**2	W/M
.013 572.6 .093 1.59E+04 .051 577.3 .098 1.69E+04 .051 580.3 .097 1.79E+04 .063 570.1 .099 1.54E+04 .063 570.1 .099 1.54E+04 .089 578.2 .102 1.60E+04 .089 578.2 .102 1.60E+04 .089 578.2 .102 1.60E+04 .089 578.2 .102 1.50E+04 .114 570.3 .105 1.57E+04 .114 571.8 .104 1.59E+04 .1140 565.4 .108 1.47E+04 .140 566.0 .107 1.48E+04 .165 564.1 .110 1.48E+04 .165 564.1 .110 1.48E+04 .165 564.1 .110 1.48E+04 .317 579.3 .127 1.71E+04 .394 600.4 .137 1.87E+04 .394 600.4 .137 1.87E+04 .470 610.1 .147 2.28E+04 .470 610.1 .147 2.10E+04 .546 633.9 .161 3.08E+04 .546 633.9 .161 3.08E+04 .622 598.9 .173 2.41E+04 .698 637.5 .189 3.80E+04 .622 611.3 .179 3.46E+04 .698 637.5 .189 3.80E+04 .698 679.1 .210 8.62E+04 .775 756.2 .266 1.26E+05 .851 699.2 .263 1.17E+05 .851 699.2 .263 1.17E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 1.003 908.7 .399 1.19E+0	(M)	(K)		W/	M***	M/M**2					FIRE	
1.051		The second second	100									
1.063												
1089 579.8 102												
114							.089					
140		579.8	, 102	1.2			100					
165 564.9 .110 1.48E+04 .317 579.3 .127 1.71E+04 317 582.4 .127 1.79E+04 .394 602.4 .137 1.87E+04 .394 606.6 .136 1.90E+04 .470 610.1 .147 2.10E+04 .470 616.6 .147 2.28E+04 .546 622.1 .160 2.54E+04 .546 633.9 .161 3.08E+04 .622 598.9 .173 2.41E+04 .622 .611.3 .179 3.46E+04 .698 .637.5 .189 3.80E+04 .698 .679.1 .210 8.62E+04 .775 .638.4 .216 6.02E+04 .775 .756.2 .266 1.26E+05 .851 .695.2 .263 1.17E+05 .851 .892.2 .337 1.45E+05 .927 .870.5 .331 1.37E+05 .927 .953.6 .404 1.11E+05 1.003 .908.7 .399 1.19E+05 1.079 .965.3 .494 4.57E+04 1.143 .906.9 </td <td></td> <td></td> <td>. 104</td> <td>1.5</td> <td></td> <td></td> <td>165</td> <td>564 1</td> <td>110</td> <td></td> <td></td> <td></td>			. 104	1.5			165	564 1	110			
317 582.4 127 1.79E+04 .394 602.4 .137 1.87E+04 .394 606.6 .136 1.90E+04 .470 610.1 .147 2.10E+04 .470 616.6 .147 2.28E+04 .546 622.1 .160 2.54E+04 .546 633.9 .161 3.08E+04 .622 598.9 .173 2.41E+04 .622 611.3 .179 3.46E+04 .628 637.5 .189 3.80E+04 .698 .679.1 .210 8.62E+04 .775 638.4 .216 6.02E+04 .775 .756.2 .266 1.26E+05 .851 .695.2 .263 1.17E+05 .927 .953.6 .404 1.11E+05 1.003 .908.7 .399 1.19E+05 1.033 .983.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 1.143 .927.2 .511 3.60E+04 1.143 .906.9 .471 4.46E+04 1.244 .876.3 .534 2.97E+04 1.244 .862.0								570 3	127			
394 606.6 .136 1.90E+04 .470 610.1 .147 2.10E+04 .546 632.1 .160 2.54E+04 .546 633.9 .161 3.08E+04 .622 598.9 .173 2.41E+04 .622 611.3 .179 3.46E+04 .698 637.5 .189 3.80E+04 .698 637.5 .189 3.80E+04 .775 756.2 .266 1.26E+05 .851 695.2 .263 1.17E+05 .851 892.2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 1.003 983.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.284 862.0 .496 3.15E+04 1.284 876.3 .534 2.97E+04 1.308 945.7 .545 2.11E+04 1.308 945.7 .545 2.11E+04 1.308 945.7 .545 2.11E+04 1.308 945.7 .545 2.11E+04 1.384 1027.8 .555 1.72E+04 1.502 5.528 8.08E+03 1.562 1046.7 .571 9.16E+03 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.689 1021.9 .577 4.55E+03 1.689 1021.9 .577 4.55E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 573 4.55E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 67.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.867 867.8 574 6.99E+03 1.866 938.0 .580 3.08E+03 1.866 938.0	317		127	1 7								
.470 616.6 .147 2.28E+04 .546 622.1 .160 2.54E+04 .546 633.9 .161 3.08E+04 .622 598.9 .173 2.41E+04 .622 598.9 .173 2.41E+04 .622 598.9 .173 2.41E+04 .622 698 637.5 .189 3.80E+04 .698 679.1 .210 8.62E+04 .775 638.4 .216 6.02E+04 .775 756.2 .266 1.26E+05 .851 695.2 .263 1.17E+05 .851 892.2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 .927 870.5 .331 1.37E+05 .927 870.5 .927 870	304		136	1 9								
.546 633.9 .161 3.08E+04 .622 598.9 .173 2.41E+04 .622 611.3 .179 3.46E+04 .698 637.5 .189 3.80E+04 .698 679.1 .210 8.62E+04 .775 638.4 .216 6.02E+04 .775 756.2 .266 1.26E+05 .851 695.2 .263 1.17E+05 .851 892.2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 .1003 988.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 .1079 935.5 .447 6.19E+04 .143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 .181 849.4 .481 3.45E+04 .181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 .1244 876.3 .534 2.97E+04 1.308 945.7 .545 2.11E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.460 1050.5 .563 1.35E+04 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.689 1021.9 .577 4.55E+03 1.689 1021.9 .577 4.55E+03 1.689 1021.9 .577 4.55E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 945.8 .539 4.55E+0	470						546					
.622 611.3 .179 3.46E+04 .698 637.5 .189 3.80E+04 .775 638 4 .216 6.02E+04 .775 756.2 .266 1.26E+05 .851 695.2 .263 1.17E+05 .851 892.2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 .927 953.5 .404 1.11E+05 1.079 935.5 .447 6.19E+04 .979 965.3 .494 4.57E+04 1.143 906.9 .471 4.46E+04 .143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.308 941.1 .508 1.98E+04 1.460 1052.0 .524 1.07E+04 1.460 1052.0 .524 1.07E+04 1.508 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1042.4 .574 7.22E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .580 3.08E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 945.8 .541 6.99E+03 1.816 945.8 .541 6.99E+03 1.816 945.8 .541 6.99E+03 1.816 945.8 .54							622					
.698 679.1 .210 8.62E+04 .775 638.4 .216 6.02E+04 .775 756.2 .266 1.26E+05 .851 695.2 .263 1.17E+05 .851 892.2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 1.003 983.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.308 941.1 .508 1.98E+04 1.460 1050.5 .563 1.35E+04 1.460 1052.0 .524 1.07E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.666 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03 1.816 945.8 .539 4.55E+03 1.816 945.8 .53			179	3.4								
.775 756.2 .266 1.26E+05 .851 695.2 .263 1.17E+05 .851 892.2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 1.003 983.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 1.079 965.3 .494 4.57E+04 1.143 906.9 .471 4.46E+04 1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 <td< td=""><td></td><td></td><td>210</td><td>8.6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			210	8.6								
.851 892,2 .337 1.45E+05 .927 870.5 .331 1.37E+05 .927 953.6 .404 1.11E+05 1.003 908.7 .399 1.19E+05 1.003 983.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 1.079 965.3 .494 4.57E+04 1.143 906.9 .471 4.46E+04 1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.384 1027.8 .555 1.72E+04 1.460 1052.0 .524 1.07E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+03 1.512												
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1.003 983.5 .457 9.22E+04 1.079 935.5 .447 6.19E+04 1.079 965.3 .494 4.57E+04 1.143 906.9 .471 4.46E+04 1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.384 1027.8 .555 1.72E+04 1.384 1026.2 .517 1.60E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.689 1021.9 .577 4.55E+03 1.765 <td>927</td> <td></td> <td>. 404</td> <td>1.1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	927		. 404	1.1								
1.079 965.3 .494 4.57E+04 1.143 906.9 .471 4.46E+04 1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.384 1027.8 .555 1.72E+04 1.460 1052.0 .524 1.07E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 <td>1.003</td> <td></td> <td></td> <td></td> <td>2E+04</td> <td></td> <td>1.079</td> <td>935.5</td> <td>. 447</td> <td>6.19</td> <td>E+04</td> <td></td>	1.003				2E+04		1.079	935.5	. 447	6.19	E+04	
1.143 927.2 .511 3.60E+04 1.181 849.4 .481 3.45E+04 1.181 864.9 .520 3.17E+04 1.244 862.0 .496 3.15E+04 1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.384 1027.8 .555 1.72E+04 1.460 1052.0 .524 1.07E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.816 938.0 .580 3.08E+03 1.867 </td <td></td> <td></td> <td></td> <td></td> <td>7E+04</td> <td></td> <td>1.143</td> <td>906.9</td> <td>.471</td> <td>4.46</td> <td>E+04</td> <td></td>					7E+04		1.143	906.9	.471	4.46	E+04	
1.244 876.3 .534 2.97E+04 1.308 941.1 .508 1.98E+04 1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.384 1027.8 .555 1.72E+04 1.460 1052.0 .524 1.07E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.816 938.0 .580 3.08E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03		927.2	.511	3.6	0E+04							
1.308 945.7 .545 2.11E+04 1.384 1026.2 .517 1.60E+04 1.384 1027.8 .555 1.72E+04 1.460 1052.0 .524 1.07E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03	1.181	864.9			7E+04		1.244					
1.384 1027.8 .555 1.72E+04 1.460 1052.0 .524 1.07E+04 1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03	1.244	876.3	.534	2.9	7E+04		1.308					
1.460 1050.5 .563 1.35E+04 1.511 1047.5 .528 8.08E+03 1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03	1.308	945.7							.517	1.60		
1.511 1044.0 .567 1.04E+04 1.562 1050.6 .530 7.04E+03 1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03	1.384								.524	1.07		
1.562 1046.7 .571 9.16E+03 1.613 1047.5 .533 5.88E+03 1.613 1042.4 .574 7.22E+03 1.689 1028.6 .535 4.54E+03 1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03	1.460		. 563	1.3	5E+04							
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1.689 1021.9 .577 4.55E+03 1.765 992.7 .538 3.81E+03 1.765 985.0 .579 2.68E+03 1.816 945.8 .539 4.55E+03 1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03												
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1.816 938.0 .580 3.08E+03 1.867 867.8 .541 6.99E+03												
1 0/3 0/0 0 Fe1 / 71/1/03 1 010 010 0 Fh1 0 03/1/03									.539			
1.867 862.0 .581 6.74£+03 1.918 840.2 .544 9.23£+03 1.918 835.9 .584 8.59£+03 1.994 809.1 .549 8.47£+03 1.994 804.1 .588 7.83£+03 2.070 763.3 .554 9.63£+03 2.070 .759.3 .593 9.47£+03			.580	3.0	82+03							
1.918 835.9 .584 8.59E+03 1.994 809.1 .549 8.47E+03 1.994 804.1 .588 7.83E+03 2.070 763.3 .554 9.63E+03 2.070 .759.3 .593 9.47E+03			.581	6.7	4E+03							
1.994 804.1 .588 7.83E+03 2.070 763.3 .554 9.63E+03 2.070 . 759.3 .593 9.47E+03				8.5	9E+03							
2.070 . 759.5 .593 9.476.+03				7.8	3E+03		2.070	763.3	.554	9.63	F+03	
	2.070	. 759.3	.593	9.4	7E+03							

POINT SERIAL NO. 1144.040	TIME= 118.50 SEC)	POINT SERIAL NO. 1144.050	(TIME= 122.50 SEC)
LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAI TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	15.29 MPA 552.8 K 1.231E+06 J/kG 7.01 MPA 559.05 K 26.21 KG/SEC-M**2 024 1.231E+06 J/KG .850 M .0197 M/SEC .180 0.0 W	LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-IT) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT ELEVATION DZGF TV (M) (M) (K)	15.30 MPA 552.6 K 1.230E+06 J/KG 7.02 MPA 559.10 K 26.20 KG/SEC-M**2 025 1.230E+06 J/KG .924 M .0174 M/SEC .192 0.0 W
VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF TV (M) (K)	LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMENT ELEVATION DZGF TV (M) (K)	LOCATION INFORMATION XE XA
1.232 .382 721.1 .	392 .293	1.232 .308 696.9	.364 .283
WALL TEMPERATURE MEASUREMENT LE ELEVATION TEMP XE (M) (K)		WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)	LOCATION INFORMATION HEAT FLUX HEAT LOSS W/M**2 W/M**2
.013	1.54E+04 1.77E+04 1.50E+04 1.58E+04 1.54E+04 1.45E+04 1.48E+04 1.80E+04 1.99E+04 2.40E+04 2.99E+04 3.62E+04 7.63E+04 9.54E+04	.013	1.51E+04 1.70E+04 1.49E+04 1.55E+04 1.54E+04 1.44E+04 1.46E+04 1.77E+04 2.21E+04 2.62E+04 2.67E+04 4.54E+04 7.77E+04 1.33E+05 1.28E+05 7.74E+04 5.36E+04 5.36E+04 6.34SE+04

742.6

.409

1.05E+04

INEL POST-CHE EXPERIMENT NO. 144

POINT SERIAL NO. 1144.060 (TIME= 127.50 SEC) POINT SERIAL NO. 1150,060 (TIME= 116.50 SEC) 16.03 MPA 15.30 MPA LOOP PRESSURE(PE-3) LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 552.5 K 551.4 K 1.229E+06 J/KG LHP INLET ENTHALPY 1.224E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 3.49 MPA PRESSURE 7.02 MPA SAT TEMP 515.52 K 559.13 K SAT TEMP 18.55 KG/SEC-M**2 MASS FLUX 26.21 KG/SEC-M**2 MASS FLUX .100 INLET QUALITY INLET QUALITY -.026 INLET ENTHALPY 1.224E+06 J/KG INLET ENTHALPY 1.229E+06 J/KG QUENCH FRONT: QUENCH FRONT: .772 M ELEVATION ELEVATION 1.004 M .0120 M/SEC VELOCITY VELOCITY .0149 M/SEC .275 QUALITY QUALITY .201 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) .343 .279 1.232 .459 703.1 .482 .382 1.232 .228 660.1 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE HEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS HEAT FLUX TEMP XE ELEVATION W/M**2 W/M##2 W/M**2 W/M##2 (M) (K) (K) (M) .013 1.44E+04 -.024 527.3 . 101 1.49E+04 .013 567.3 574.4 -.021 1.63E+04 .051 532.7 . 106 1.55E+04 .051 525.6 . 107 1.42E+04 -.019 1.48E+04 .063 .063 567.3 1.48E+04 .089 533.7 .110 .089 575.5 -.017 1.54E+04 .114 527.3 .113 1.43E+04 1.52E+04 .114 568.9 -.014 . 140 522.0 .116 1.38E+04 1.44E+04 564.5 -.012 . 140 1.40E+04 -.010 1.46E+04 . 165 522.3 .119 . 165 563.5 542.5 .137 1.69E+04 579.1 .006 1.70E+04 .317 .317 . 147 . 394 1.89E+04 . 394 562.4 1.75E+04 .015 602.2 2.15E+04 .470 578.4 . 159 2.29E+04 .025 .470 606.7 2.38E+04 .546 591.3 . 175 2.82E+04 .546 618.1 .036 .622 572.3 . 195 3.92E+04 .622 594.7 .047 2.24E+04 .698 3.11E+04 659.6 .229 7.41E+04 .698 625.8 .060 .077 3.80E+04 .775 715.5 .276 8.44E+04 .775 623.4 .103 6.41E+04 .851 818.8 . 332 1.03E+05 .851 669.5 . 145 1.08E+05 .927 878.2 . 384 7.10E+04 .927 728.0 6.12E+04 1.003 899.7 .423 1.003 728.3 .200 1.15E+05 .252 9.66E+04 1.079 895.2 .452 3.51E+04 1.079 861.5 879.6 .290 8.96E+04 1.143 858.5 .467 2.48E+04 1.143 .315 1.10E+05 1.181 821.5 . 474 2.16E+04 1.181 818.8 . 347 4.82E+04 1.244 816.2 .484 1.86E+04 1.244 862.1 957.4 .362 2.42E+04 1.308 875.4 .493 1.53E+04 1.308 .372 1.54E+04 1.384 922.9 .501 1.19E+04 1.384 1048.0 .378 1.460 1074.3 1. 14E+04 1.460 939.4 .507 9.23E+03 1.511 1064.3 .382 8.34E+03 1.511 928.5 .510 7.94E+03 .514 7.32E+03 928.0 1.562 1063.9 . 384 7.57E+03 1.562 .516 1.613 922.8 5.93E+03 1.613 1053.7 .387 6.56E+03 908.6 .519 3.94E+03 1.689 1023.5 . 389 4.55E+03 1.689 . 392 1.765 979.0 4.46E+03 1.765 891.0 .521 2.38E+03 1.816 920.0 .393 5.72E+03 1.816 878.1 .522 1.43E+03 1.867 856.2 .522 4.47E+02 1.867 841.2 . 396 8.81E+03 .522 . 399 1.06E+04 1.918 826.9 1.10E+03 1.918 817.2 9.62E+03 1.994 817.8 .522 -1.82E+03 1.994 785.0 .404

2.070

INEL POST-CHE EXPERIMENT NO. 150

.524

735.4

8.26E+03

POINT SERIA	L NO. 115	0.070 (TIME= 124.50 SEC)	M**2	POINT SERIA	L NO. 11	50.081	(TIME	= 130.50 SEC)	
LOOP PRESSU	REIDE-31		16.03 MPA 551.7 K 1.225E+06 J/KG		LOUD BRESSH	REIPE-31	,		16 11 MPA	
FCV TEMPERA	TURFITE-FC	V-III	551.7 K		FCV TEMPERA	TURE! TE-F	CV-11)		552 0 K	
THE INIET E	NTHAL PV		1 225E+06 1/VC		THE INITE	NTHALPY		1 22	7F+06 1/KG	
TEST SECTIO	N-		1.2236.00 37 40		TEST SECTIO	N.		1.22	12.00 3/10	
PRESSI	DE.		3 NO MPA		PRESCH	DE.			3 hg MPA	
GAT TE	MD		515 48 V		CAT TE	MP		- 6	15 51 4	
MACC E	NF INV		313.48 K	MARCO.	MACC E	HI		,	19.31 K	U##D
MASS I	CUALITY		10.39 KG/SEC-	M2	MASS F	OUAL LTV			10.30 KU/SEU-	12
13.191	CHTUALDY		1 2255106 1700		INLET	CHTHALDY		1 22	75406 LIVE	
QUENCH FROM	ENTRALFY		1.225E+00 J/KU		ONE NON FROM	ENTHALPT		1.22	TETUD J/NO	
GULRUN FRUN	LON		860 M		QUENCH FROM	LON			020 M	
VELOC1	TV		0103 M/SEC		VELOCI	TV			DOOR MISEC	
TI IAHO	v .		286		OHALLT	V			203	
NET THE BOW	ER TO FLUID	0	0.0 4		NET LUD DON	ER TO FILE	10		0.0 4	
MET CHE FOR	ER TO FLOT		.286 0.0 W		MET THE FOR	ER TO TEO			0.0 #	
VAPOR TEMPE	RATURE MEA	SUREMENT	LOCATION INFORMAT	ON HEAT LOSS W/M**2	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCA	TION INFORMAT	ION
ELEVATION	(30)	14	AE AA		ELEVATION V	DZOE	1 211	XE	VA	
(11)	(4)	(4)			ELEVATION	DZQF	14	VE.	AA	
1 020	272	671 0	1.71 380		(m)	(m)	(1)			
1.636	. 372	011.0	4/1 .300		1 222	212	650.0	hh6	. 368	
MALL TEMPER	ATHRE MEAS	DEMENT I	OCATION INFORMATI	ON	1.236	. 312	690.0	. 440		
FLEVATION	TEMP	UKEMENI LI	UCATION INTORMATI	HEAT LOSS W/M**2	WALL TEMPER	ATURE MEA	CHDEMENT	LOCAT	TON INFORMATI	ON
ELEVATION	1 EMP	AL	HEAT FLOX	HEAT LUSS	WALL TEMPER	ATURE MEA	SUREMENT	LUCAT	HEAT FLUY	WEAT LOS
(10)	(v)		M/M	M/M5	ELEVATION	1 CMP	VE		W/M**2	W/M##2
012	626 h	102	1, 43E+04 1, 49E+04 1, 41E+04 1, 45E+04 1, 45E+04 1, 38E+04 1, 38E+04 1, 62E+04 2, 03E+04 2, 28E+04 2, 24E+04 3, 69E+04 6, 12E+04 9, 48E+04 9, 38E+04 7, 83E+04 7, 83E+04 3, 65E+04 3, 65E+04 3, 24E+04 3, 24E+04		(M)	(n)			M/ H5	M/M
.013	520.4	102	1 435 + 04		013	505 D	102		1 1/2540h	
.051	520.0	107	1.495.104		.013	520.7	103		1.42E+04 1.47E+04 1.43E+04 1.43E+04 1.42E+04 1.37E+04	
,003	512 5	111	1 055400		063	524.7	107		1 475 +04	
114	536.3	110	1 035400		.003	531 7	112		1 435 +04	
160	521 6	117	1 385+04		114	525 7	110		1 435+04	
165	521.0	110	1 385+04		140	521 3	117		1 275+04	
317	530 3	137	1 625+04		165	521.5	120		1 3 PE+Oh	
304	558 0	100	1 775+04		317	527 h	120		1.38E+04 1.58E+04	
1.70	570.0	150	2 035404		300	554 7	1/10		1.76E+04	
546	570.5	172	2 285+04		470	565 4	150		1.94E+04	
622	557 5	185	2 245+04		546	573 0	171		2 105+04	
608	500 1	203	3 60F+0h		622	551 7	184		2.10E+04 1.98E+04 2.70E+04	
775	610 h	233	6 12F+0h		608	585 8	109		2 705+04	
851	697.0	280	0.122.04		776	582 0	216		3.26E+04	
027	803.8	336	0 385+04		851	636 5	260		7.716+04	
1 003	867 0	388	7 835+04		027	767 7	209		8.55E+04	
1.079	860 1	127	5 055+04		1 003	783 3	340		8.45E+04	
1 1/13	8h3 h	hho	3 655+04		1.070	842 0	302		5.80E+04	
1 181	808 0	450	3 2hF+0h		1 1/13	825 6	110		4.38E+04	
1.244	906.9	1.439	2 775+04		1.143	703 8	1,410			
1.308	000.9	474	2.732+04		1.101	793.8	. 430		3.99E+04	
1.300	072.3	.400	1.921104		1.244	194.8	. 450		3.75E+04	
1.384	923.0	. 499	1.376+04		1.308	007.0	. 400		2.56E+04	
1.511	032 6	507	1.101-04		1.384	923.1	.478		1.70E+04	
1.562	932.0	511	0.735+03		1.460	942.6	. 488		1.62E+04	
1.502	932.4	.511	9.736+03		1.511	934.6	. 494		1.28E+04	
1.613	920.7	510	6.251403		1.562	934.6	, 499		1.21E+04	
1.689	910.5	.519	5 68E+03		1.613	932.1	. 504		1.02E+04	
1.765	900.4	522	3.961+03		1.689	921.6	. 509		7.09E+03	
1.816	000.3	. 523	3.158+03		1.765	906.8	.513		5.14E+03	
1.867	807.5	.524	1.926+03		1.816	895.2	.515		4.47E+03	
1.918	837.9	.525	2.651.403		1.867	875.3	.516		3.06E+03	
1.994	031.5	. 526	-3.63E+02		1.918	845.2	.518		3.66E+03	
2.070	740.3	.529	8.861+03		1.994	840.9	.519		3.06E+03 3.66E+03 5.68E+02 9.02E+03	
					2.070	743.8	.522		9.02E+03	

```
POINT SERIAL NO. 1150.091 (TIME= 138.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)
                                    16.03 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                    552.1 K
LHP INLET ENTHALPY
                                1.227E+06 J/KG
TEST SECTION:
     PRESSURE
                                     3.49 MPA
     SAT TEMP
                                   515.45 K
     MASS FLUX
                                    18.31 KG/SEC-M*#2
     INLET QUALITY
                                     . 102
     INLET ENTHALPY
                                1.227E+06 J/KG
QUENCH FRONT:
     ELEVATION
                                      .996 M
     VELOCITY
                                    .0091 M/SEC
     QUALITY
                                     .287
NET LHP POWER TO FLUID
                                      0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
ELEVATION
             DZQF
                       TV
                                XE
                                      XA
                       (K)
  (M)
              (M)
 1.232
              .236
                      575.0
                              .406 .368
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                     HEAT FLUX
                                                    HEAT LOSS
ELEVATION
               TEMP
                           XE
                                      W/M##2
                                                     W/M##2
  (M)
               (K)
  .013
               525.2
                          .103
                                     1.41E+04
                          . 108
                                     1.46E+04
  .051
               528.5
  .063
                          .109
               523.7
                                     1.41E+04
                          .112
  .089
               530.8
                                     1.45E+04
  . 114
               524.9
                          .115
                                     1.42E+04
  . 140
               521.0
                          .118
                                     1.38E+04
               521.1
                          . 120
                                     1.39E+04
  . 165
  .317
               535.2
                                     1.54E+04
                          . 138
  . 394
               550.9
                          . 148
                                     1.691+04
  .470
               560.0
                          . 158
                                     1.83E+04
  .546
               566.1
                          .170
                                     1.95E+04
  .622
               546.4
                          .181
                                     1.78E+04
                          . 193
  .698
               574.8
                                     2.23E+04
                                     2.25E+04
  .775
               569.2
                          .207
                          .222
                                     2.84E+04
  .851
               583.9
                          .250
                                     6.50E+04
  .927
               639.2
 1.003
               660.7
                          .291
                                     6.92E+04
 1.079
               800.3
                          .329
                                     5.57E+04
                          . 356
                                     5.15E+04
 1.143
               794.9
               754.7
                          .375
                                     7.80E+04
 1.181
               773.1
                          .414
                                     7.50E+04
 1.244
 1.308
               852.2
                          . 441
                                     3.27E+04
                          .458
 1.384
               915.5
                                     2.60E+04
                                     2.17E+04
 1.460
              937.1
                          .473
 1.511
              933.3
                          .481
                                     1.63E+04
 1.562
              934.4
                          .487
                                     1.50E+04
 1.613
              934.0
                          .492
                                     1.24E+04
 1.689
              926.3
                          .499
                                     9.32E+03
              913.6
 1.765
                          .504
                                     6.91E+03
 1.816
              902.9
                          .506
                                     6.01E+03
 1.867
              884.0
                          .509
                                     4.84E+03
 1,018
              853.8
                          .511
                                     5.17E+03
                                     3.02E+03
 1.994
              851.7
                          .513
 2.070
              748.0
                          .517
                                     9.79E+03
```

INEL POST-CHE EXPERIMENT NO. 150

	100000000000000000000000000000000000000	and many and comment	Transfer Control	
POINT SERIA	L NO. 11	50.100 (T	IME= 146.50 SEC)
LOOP PRESSU	REIPE-31		16.07 MPA	
FCV TEMPERA		CV-111	552.2 K	
LHP INLET E			.228E+06 J/KG	
TEST SECTIO			LEGETOG STATE	
PRESSU			3.49 MPA	
SAT TE			515.46 K	
MASS F			18.35 KG/SEC	-M##2
	QUALITY		.102	11
	ENTHALPY		.228E+06 J/KG	
QUENCH FROM			. 2202100 3/10	
			1,070 M	
ELEVAT			.0094 M/SEC	
VELOCI			.288	
NET LHP POW		I.D.	0.0 W	
MET THE FOR	ER TO FLO	10	0.0 #	
			OCATION INFORMA	TION
ELEVATION	DZQF		E XA	
(M)	(M)	(K)		
1.232	. 162	540.3 .3	93 .375	
WALL TEMPER	ATURE MEA	SUREMENT LO	CATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)	741.	W/M**2	W/M**2
(11)	(11)			
.013	524.8	. 104	1.41E+04	
.051	527.8		1.45E+04	
.063	523.4	. 109	1.39E+04	
.089	530.1	.112	1.44E+04	
.114	524.5		1.40E+04	
. 140	520.8		1.38E+04	
. 165	520.9		1.39E+04	
.317	533.9	.138	1.52E+04	
. 394	548.6	.148	1.66E+04	
.470	556.8		1.77E+04	
.546	562.1	. 169	1.87E+04	
.622	543.6	. 180	1.70E+04	
.698	569.0	. 191	2.04E+04	
.775	563.4		2.03E+04	
.851	576.3		2.01E+04	
.927	594.4		3.57E+04	
1.003	589.6	.260	5.41E+04	
1.079	758.8		5.57E+04	
1.143	761.8	. 325	7.17E+04	
1.181	688.3	. 351	1.05E+05	
1.244	666.1	.402	9.76E+04	
1.308	838.8	.437	3.91E+04	
1.384	907.3	. 458	3.22E+04	
1.460	931.2	.476	2.62E+04	
1.511	931.2	. 485	1.91E+04	
1.562	933.3	.492	1.72E+04	
1.613	934.5	. 499	1.43E+04	
1.689	928.8		1.09E+04	
1.765	917.6	.512	8.26E+03	
1.816	907.5	.515	7.30E+03	
1.867	889.4	.518	6.32E+03	
1.918	859.1	.520	6.22E+03	
1.994	858.3	.524	4.51E+03	
0 070	750 6	E 20	1 005.00	

1.02E+04

2.070

750.6

.528

787.7

```
POINT SERIAL NO. 1154.070 (TIME= 164.50 SEC)
 POINT SERIAL NO. 1154.060 (TIME= 154.50 SEC)
                                                                                                                                                                 FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

16.06 MPA
547.5 K
1.204E+06 J/KG
FCV IEMPERATURE(TE-FCV-TT)

LHP INLET ENTHALPY
TEST SECTION:

16.07 MPA
547.8 K
1.206E+06 J/KG
                                                                                                                                                                  TEST SECTION:
                                                          3.49 MPA
                                                                                                                                                                TEST SECTION:

PRESSURE

SAT TEMP

MASS FLUX

INLET QUALITY

INLET ENTHALPY

3.50 MPA

515.61 K

16.52 KG/SEC-M**2

.088

INLET ENTHALPY

1.204E+06 J/KG
         PRESSURE 3.49 MPA

SAT TEMP 515.60 K

MASS FLUX 16.64 KG/SEC-M**2

INLET QUALITY .089

INLET ENTHALPY 1.206E+06 J/KG
                                                                                                                                                           QUENCH FRONT:
 QUENCH FRONT:
                                                                                                                                                            ELEVATION
ELEVATION .775 M
VELOCITY .0075 M/SEC
QUALITY .259
NET LIP POWER TO FLUID 0.0 W
                                                                                                                                                                      VELOCITY .0076 M/SEC
                                                                                                                                                                                                                                                   .851 M
                                                                                                                                                                NET LHP POWER TO FLUID 0.0 W
                                                                                                                                                                  VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
 VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
 ELEVATION DZQF TV XE XA
                                                                                                                                                                  ELEVATION DZQF TV XE XA
                                                                                                                                                                                                (M)
                             (M)
                                                  (K)
                                                                                                                                                                     (M)
                                                                                                                                                                                                                    (K)
    (M)
                                                                                                                                                                   1.232
                                                                                                                                                                                                .381 742.3 .429 .323
   1.232
                          .457 737.4 .507 .383
 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                                                                                                 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
 ELEVATION TEMP XE HEAT FLUX HEAT LOSS
(M) (K) W/M**2 W/M**2
                                                                                                                                                                 ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                                                                                                                 (M)
                                                                                                                                                                                                (K)
                                                                                                                                                                                                                                                 W/M##2
                                                                                                                                                                                                                                                                                 W/M##2
                                                                                                                                                                                              527.2 .090 1.09E+04
530.8 .093 1.15E+04
525.5 .095 1.11E+04
526.3 .100 1.14E+04
521.8 .102 1.10E+04
520.8 .105 1.08E+04
535.3 .120 1.23E+04
557.7 .129 1.42E+04
555.1 .139 1.45E+04
556.1 .149 1.73E+04
550.1 .160 1.62E+04
585.7 .174 2.47E+04
605.2 .200 5.24E+04
585.7 .174 2.47E+04
605.2 .200 5.24E+04
977.9 .394 3.22E+04
977.9 .394 3.22E+04
977.9 .394 3.22E+04
977.9 .394 3.22E+04
881.7 .419 2.31E+04
                            527.9 .091 1.43E+04

532.3 .096 1.49E+04

526.3 .097 1.38E+04

526.3 .097 1.38E+04

527.6 .100 1.45E+04

527.6 .104 1.42E+04

522.4 .107 1.35E+04

521.3 .110 1.34E+04

562.9 .140 1.76E+04

561.3 .152 1.91E+04

561.3 .152 1.91E+04

561.3 .152 2.35E+04

619.2 .208 5.26E+04

741.9 .259 9.3E+04

619.2 .208 5.26E+04

61
     .013
                                                                                                                                                                      .013
    .051
                                                                                                                                                                      .051
                                                                                                                                                                      .063
      .063
                                                                                                                                                                      .089
      .089
                                                                                                                                                                      . 114
     . 114
      . 140
                                                                                                                                                                      . 140
                                                                                                                                                                      . 165
      . 165
                                                                                                                                                                      .317
      .317
                                                                                                                                                                      . 394
      . 394
      .470
                                                                                                                                                                      .470
      .546
                                                                                                                                                                      . 546
                                                                                                                                                                      .622
      .622
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      .698
      .775
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      .851
                                                                                                                                                                      .851
                                                                                                                                                                       .927
      .927
                                                                                                                                                                     1,003
   1,003
   1.079
                                                                                                                                                                     1.079
                                                                                                                                                                     1.143
    1.143
                                                         .496
                                                                        2.48E+04
   1.181
                                895.2
                                                                                                                                                                     1.181
                                                                                                                                                                                                  881.7
                                                                                                                                                                                                                           .419
                                                                                                                                                                                                                                                 2.31E+04
                                                                                                                                                                                                                           .432 2.275+04
                                                         .509
                                                                        2.38E+04
                                                                                                                                                                     1.244
                                                                                                                                                                                                  903.5
    1.244
                                916.9
                                                                       2.38E+04
2.06E+04
1.74E+04
1.46E+04
1.23E+04
1.16E+04
1.03E+04
7.74E+03
                                                                                                                                                                                                                          .443
    1.308
                                985.5
                                                        .522
                                                                                                                                                                     1.308
                                                                                                                                                                                                 977.5
                                                                                                                                                                                                                                                  1.76E+04
    1.384
                                                        .534
                                                                                                                                                                                                1057.0
                                                                                                                                                                                                                          .454 1.50E+04
                               1061.3
                                                                                                                                                                     1.384
                                                                                                                                                                                                                         .463 1.22E+04
.468 1.03E+04
.473 9.91E+03
.477 8.42E+03
.482 6.24E+03
    1.460
                                                        .545
                                                                                                                                                                                                1087.8
                               1089.4
                                                                                                                                                                     1.460
                                                        .551
                               1084.8
                                                                                                                                                                     1.511
                                                                                                                                                                                                 1085.4
    1.511
   1.562
                               1090.4
                                                        .556
                                                                                                                                                                     1.562
                                                                                                                                                                                                 1091.6
                               1097.2
    1.613
                                                        .561
                                                                                                                                                                     1.613
                                                                                                                                                                                                 1099.9
                                                                                                                                                                                                                          .482
    1.689
                               1094.6
                                                        .567
                                                                                                                                                                     1.689
                                                                                                                                                                                                 1100.0
                                                                                                                                                                                                                                                   6.24E+03
                                                                     7.74E+03
5.57E+03
4.12E+03
3.82E+03
3.62E+03
2.33E+03
1.01E+04
                                                       .572
                                                                                                                                                                                                                          .485
    1.765
                               1083.2
                                                                                                                                                                     1.765
                                                                                                                                                                                                 1090.7
                                                                                                                                                                                                                                                   4.75E+03
                                                       .574
                               1068.2
                                                                                                                                                                                                                          .487 3.82E+03
    1.816
                                                                                                                                                                    1.816
                                                                                                                                                                                                1077.1
                              1044.2
                                                       .575
                                                                                                                                                                                                1053.3
    1.867
                                                                                                                                                                    1.867
                                                                                                                                                                                                                         .489 3.33E+03
                                                                                                                                                                                                1014.4 .490 2.94E+03
1002.2 .492 1.80E+03
792.1 .495 7.25E+03
                               1004.4
                                                 .577
.579
.583
    1.918
                                                                                                                                                                     1.918
    1.994
                               990.5
                                                                                                                                                                    1.994
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2.070

.440

. 443

1009.3

797.3

1.994

2.070

4.36E+03

3.01E+03

INEL POST-CHF EXPERIMENT NO. 154 POINT SERIAL NO. 1154.080 (TIME= 178.50 SEC) POINT SERIAL NO. 1154.090 (TIME= 185.50 SEC) LOOP PRESSURE (PE-3) 16.08 MPA LOOP PRESSURE(PE-3) 16.08 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 547.3 K 547.5 K LHP INLET ENTHALPY 1.204E+06 J/KG LHP INLET ENTHALPY 1.203E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.49 MPA PRESSURE 3.49 MPA SAT TEMP 515.56 K SAT TEMP 515.54 K 16.53 KG/SEC-M**2 16.52 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .088 INLET QUALITY .088 INLET ENTHALPY 1.204E+06 J/KG 1.203E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .955 M ELEVATION 1.004 M VELOCITY .0068 M/SEC VELOCITY .0073 M/SEC .225 .221 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA DZQF TV XE XA ELEVATION (M) (M) (K) (M) (K) (M) 1,232 .345 .291 .228 640.7 1.232 .277 701.8 .358 .280 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M*#2 W/M##2 W/M##2 F.W##5 (M) (K) (M) (K) .089 .013 525.2 7.65E+03 .013 525.9 .089 7.43E+03 .051 527.9 .092 7.87E+03 7.55E+03 .051 528.8 .091 523.6 .093 7.45E+03 .092 7.14E+03 .063 .063 524.1 .089 530.3 .094 7.50E+03 .089 529.7 .094 7.69E+03 .114 7.55E+03 524.7 .095 7.39E+03 524.1 .096 . 114 .140 520.5 .098 7.20E+03 .140 520.8 .097 6.98E+03 6.97E+03 . 165 519.7 .099 7.09E+03 . 165 519.9 .099 .317 530.9 .110 8.12E+03 .317 .109 7.98E+03 532.1 . 394 .115 .116 551.3 9.77E+03 . 394 548.6 9.77E+03 .470 546.3 . 122 9.43E+03 548.7 . 121 9.44E+03 . 970 1.14E+04 .546 553.6 . 129 1.10E+04 . 128 .546 557.6 . 135 1.02E+04 .622 538.9 136 9.77E+03 .622 541.8 . 143 1.39E+04 .698 561.7 . 144 1.28E+04 .698 567.6 .775 . 153 1.54E+04 .775 561.0 . 152 1.34E+04 567.8 2.38E+04 .851 587.8 . 161 1.33E+04 .851 595.8 . 166 . 183 .927 .201 8.17E+04 .927 620.3 5.15E+04 656.7 1.003 827.8 .256 7.95E+04 1.003 692.7 .225 7.29E+04 1.079 926.5 .300 5.36E+04 1.079 880.5 .272 6.94E+04 1.143 875.7 1.143 911.2 .328 4.56E+04 .308 5.83E+04 .325 1.181 849.0 .342 3.67E+04 1,181 821.4 4.53E+04 .361 1.244 848.8 . 349 3.99E+04 1.244 872.7 3.32E+04 .377 1.308 960.3 2.22E+04 1.308 947.7 .367 2.48E+04 1039.1 1.384 1047.1 .390 1.65E+04 1.384 . 382 1.90E+04 1.460 .394 1073.2 1.69E+04 1.460 1079.9 .400 1.52E+04 1080.6 .407 1.26E+04 1.511 1075.9 .401 1.42E+04 1.511 .412 1.23E+04 1.562 1083.0 .407 1.35E+04 1.562 1087.4 1094.1 1.613 1097.6 .417 1.09E+04 1.613 .413 1.23E+04 1098.8 8.82E+03 1.689 .421 1.01E+04 1.689 1100.7 .424 1.765 1093.1 1.765 1093.8 .429 7.15E+03 .427 8.14E+03 1.816 1080.9 .432 6.56E+03 1.816 1080.7 .430 7.48E+03 5.05E+03 6.57E+03 1.867 1059.1 .435 1.867 1059.9 . 434 1.918 1022.0 5.75E+03 1.918 1020.9 .437 4.58E+03 .436

1.994

2.070

1010.5

800.0

.440

.444

5.78E+03

4.12E+03

```
POINT SERIAL NO. 1157.041 (TIME= 209.50 SEC)
POINT SERIAL NO. 1154.100 (TIME= 195.50 SEC)
                                                                        (INFFRRED VAPOR TEMP)
                                                                        LOOP PRESSURE(PE-3)
LOOP PRESSURE(PE-3)
                                  16.04 MPA
                                                                                                          15.99 MPA
                                 547.7 K
FCV TEMPERATURE( IE-FCV-11)
                                                                       FCV TEMPERATURE (TE-FCV-1T)
                                                                                                         614.0 K
                                                                       LHP INLET ENTHALPY
                                                                                                      1.597E+06 J/KG
THP INLET ENTHALPY
                              1.205E+06 J/KG
TEST SECTION:
                                                                       TEST SECTION:
     PRESSURE
                                   3.49 MPA
                                                                             PRESSURE
                                                                                                            .70 MPA
                                                                            SAT TEMP
                                                                                                         437.94 K
    SAT TEMP
                                515.55 K
                                                                                                         13.52 KG/SEC-M**2
    MASS FLUX
                                 16.52 KG/SEC-M**2
                                                                            MASS FLUX
     INLET QUALITY
                                                                            INLET QUALITY
                                  -089
                                                                                                           .436
                                                                                                      1.597E+06 J/KG
     INLET ENTHALPY
                              1.205E+06 J/KG
                                                                            INLET ENTHALPY
QUENCH FRONT:
                                                                       QUENCH FRONT:
                                                                                                           319 M
     ELEVATION
                                 1.078 M
                                                                             ELEVATION
                                                                                                          .0018 M/SEC
     VELOCITY
                                  .0082 M/SEC
                                                                             VELOCITY
                                  .232
    QUALITY
                                                                                                           .483
                                                                             QUALITY
NET LHP POWER TO FLUID
                                   0.0 W
                                                                       NET LHP POWER TO FLUID
                                                                                                            0.0 W
                                                                       VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                     TV
                             XE XA
                                                                        (INFERRED VAPOR TEMP)
 (M)
             (M)
                      (K)
                                                                       ELEVATION
                                                                                    DZQF
                                                                                                      XE
                                                                         (M)
                                                                                     (M)
                                                                                              (K)
1.232
            .153 618.3 .343 .294
                                                                        1.232
                                                                                     .913
                                                                                             695.0
                                                                                                   .641 .505
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                       WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                      XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                                                                                                          HEAT LOSS
  (M)
              (K)
                                    W/M##2
                                                  W/M##2
                                                                       ELEVATION
                                                                                     TEMP
                                                                                              XE
                                                                                                           HEAT FLUX
                                                                                                            W/M**2
                                                                                                                           W/M**2
                                                                         (M)
                                                                                      (K)
  .013
              524.5
                         .090
                                   8.69E+03
                                                                         .013
                                                                                                 . 438
  .051
              527.0
                         .093
                                   8.84E+03
                                                                                      447.5
                                                                                                           1.39E+04
  .063
                         .094
                                                                                                 . 443
                                                                                                            1.39E+04
              523.1
                                   8.63E+03
                                                                          .051
                                                                                      450.3
  .089
              528.8
                         .096
                                   8.75E+03
                                                                          .063
                                                                                      446.8
                                                                                                 , 444
                                                                                                           1.39E+04
  .114
                                                                                                           1.41E+04
              523.5
                         .098
                                  8.57E+63
                                                                                      453.6
                                                                                                 .447
                                                                          .089
                                                                         -114
  140
              520.4
                        . 100
                                  8.24E+03
                                                                                                 451
                                                                                                           1.40E+04
                                                                                      448.1
                         .102
                                                                         . 140
  165
              519.7
                                   8.17E+03
                                                                                      445.7
                                                                                                 454
                                                                                                           1.38E+04
                         .113
  .317
              529.6
                                   9.03E+03
                                                                          . 165
                                                                                      445.5
                                                                                                 .457
                                                                                                           1.39E+04
                                                                          .317
  .394
              545.3
                         .120
                                   1.05E+04
                                                                                      546.8
                                                                                                 .483
                                                                                                           2.33E+04
              543.5
                                   1.01E+04
                                                                          . 394
  .470
                         . 126
                                                                                      740.4
                                                                                                 . 499
                                                                                                           2.18E+04
                         . 134
  .546
              549.0
                                   1.13E+04
                                                                                      769.0
                                                                                                 .513
                                                                                                           2.06E+04
                                                                          .470
                         .141
                                                                          .546
  .622
              535.7
                                   1.02E+04
                                                                                      794.9
                                                                                                 .528
                                                                                                           2.01E+04
                         . 148
  .698
              555.3
                                  1.25E+04
                                                                          .622
                                                                                      813.0
                                                                                                  .542
                                                                                                           2.03E+04
  .775
                         . 157
                                                                                                 .556
              554.1
                                   1.27E+04
                                                                                                           1.98E+04
                                                                          .698
                                                                                      835.5
                         . 166
                                   1.54E+04
                                                                         .775
  .851
              578.5
                                                                                      853.8
                                                                                                 .569
                                                                                                           1.98E+04
                         .178
                                                                                                 .583
  .927
              586.3
                                   2.15E+04
                                                                          .851
                                                                                      871.1
                                                                                                           1.94E+04
 1,003
              571.5
                         . 198
                                   3.62E+04
                                                                          .927
                                                                                      883.8
                                                                                                 .596
                                                                                                           1.90E+04
 1.079
                                   6.70E+04
                                                                                                           1.82E+04
              766.1
                         .232
                                                                         1,003
                                                                                      893.9
                                                                                                 .609
 1.143
              804.3
                         .272
                                   7.64E+04
                                                                         1.079
                                                                                      871.9
                                                                                                 .621
                                                                                                           1.69E+04
                         .300
                                   9.22E+04
 1,181
              749.0
                                                                         1.143
                                                                                      839.2
                                                                                                 .631
                                                                                                            1.53E+04
                                                                                                                          1.18E+03
                         . 354
 1.244
              795.8
                                   1.03E+05
                                                                         1,181
                                                                                      773.8
                                                                                                 .636
                                                                                                            1.25E+04
                                                                                                                          2.78E+03
 1.308
              922.5
                                   3.57E+04
                         .392
                                                                         1.244
                                                                                      752.1
                                                                                                 .644
                                                                                                           1.60E+04
 1.384
             1023.0
                                   2.89E+04
                                                                                      829.0
                                                                                                           1.63E+04
                         414
                                                                         1.308
                                                                                                 .653
 1.460
             1058.6
                         .432
                                   2.65E+04
                                                                         1.384
                                                                                      882.6
                                                                                                           1.60E-04
                                                                                                 . 664
 1.511
             1064.7
                         .443
                                   2.26E+04
                                                                         1.460
                                                                                      892.6
                                                                                                 .675
                                                                                                           1.59E=04
 1.562
             1072.6
                         .453
                                   2.20E+04
                                                                                      905.1
                                                                                                 .683
                                                                         1,511
                                                                                                           1.61E+04
 1.613
             1085.7
                         .463
                                   1.96E+04
                                                                         1.562
                                                                                      906.0
                                                                                                 . 690
                                                                                                           1.66E+04
                                   1.60E+04
                                                                                      923.8
 1.689
             1093.4
                         . 574
                                                                         1.613
                                                                                                 .698
                                                                                                           1.65E+04
 1.765
             1090.2
                         .484
                                   1.31E+04
                                                                                      946.1
                                                                         1.689
                                                                                                 .709
                                                                                                           1.61E+04
 1.816
             1079.0
                         .489
                                   1.13E+04
                                                                         1.765
                                                                                      958.3
                                                                                                 .721
                                                                                                            1.59E+04
 1.867
             1059.8
                         .494
                                   9.32E+03
                                                                         1.816
                                                                                      953.5
                                                                                                 . 728
                                                                                                            1.52E+04
 1.918
             1023.2
                         .498
                                   7.67E+03
                                                                                      934.0
                                                                         1.867
                                                                                                 . 735
                                                                                                            1.58E+04
 1.994
             1011.9
                         .503
                                   7.35E+03
                                                                                      928.9
                                                                                                 . 742
                                                                         1.918
                                                                                                           1.47E+04
 2.070
              802.7
                         .508
                                   8.02E+03
                                                                                      929.8
                                                                                                 .752
                                                                         1.994
                                                                                                           1.38E+04
```

934.7

.761

1.32E+04

```
INEL POST-CHE EXPERIMENT NO. 157
                                                                        POINT SERIAL NO. 1157.061 (TIME= 293.50 SEC)
POINT SERIAL NO. 1157.050 (TIME= 254.50 SEC)
                                                                        ( NEERRED VAPOR TEMP)
                                  15.95 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           15.95 MPA
LOOP PRESSURE (PE-3)
                                                                        FCV TEMPERATURE (TE-FCV-1T)
FCV TEMPERATURE (1E-FCV-11)
                                                                                                        614.3 K
                                 614.1 K
                                                                                                      1.600E+06 J/KG
                                                                        LHP INLET ENTHALPY
LHP INLET ENTHALPY
                              1.598E+06 J/KG
                                                                        TEST SECTION:
TEST SECTION:
                                                                                                           .70 MPA
     PRESSURE
                                                                             PRESSURE
                                    . 70 MPA
                                                                                                        438.19 K
     SAT TEMP
                              438.12 K
                                                                             SAT . TEMP
                                                                                                       13.49 KG/SEC-M**2
                               13.36 KG/SEC-M**2
                                                                            MASS FLUX
     MASS FLUX
                                                                                                         .437
                                                                             INLET QUALITY
     INLET QUALITY
                                  . 436
                                                                             INLET ENTHALPY
                                                                                                      1.600E+06 J/KG
                             1.598E+06 J/KG
     INLET ENTHALPY
                                                                       QUENCH FRONT:
QUENCH FRONT:
                                                                            ELEVATION
                                                                                                           .469 M
                                   .399 M
    ELEVATION
                                                                                                          .0018 M/SEC
                                  .0018 M/SEC
                                                                             VELOCITY
     VELOCITY
                                                                            QUALITY
                                                                                                           .508
     QUALITY
                                  .496
                                                                        NET LHP POWER TO FLUID
                                                                                                            0.0 W
NET LHP POWER TO FLUID
                                    0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        (INFERRED VAPOR TEMP)
ELEVATION
           DZQF
                    IV
                             XE XA
                                                                        ELEVATION
                                                                                     DZQF
 (M)
            (M)
                      (K)
                                                                                                            XA
                                                                         (M)
                                                                                     (M)
                                                                                              (K)
                           .649 .547
1.232
             .833
                    616.4
                                                                                     .763
                                                                        1.232
                                                                                             598.0
                                                                                                     .646 .552
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                  HEAT FLUX
                                                 HEAT LOSS
ELEVATION
             TEMP
                      XE
                                   W/M**2
                                                  W/M##2
                                                                       ELEVATION
                                                                                      TEMP
                                                                                               XE
                                                                                                           HEAT FLUX
                                                                                                                          HEAT LOSS
 (M)
              (K)
                                                                                                            W/M##2
                                                                                                                           W/M**2
                                                                         (M)
                                                                                      (K)
 .013
                         .438
              446.4
                                  1.38E+04
                                                                                      445.8
                        .443
                                   1.39E+04
                                                                         .013
                                                                                                 .439
                                                                                                           1.38E+04
 .051
              448.6
                         .444
                                                                          .051
                                                                                      447.8
                                                                                                 . 444
                                                                                                           1.39E+04
  .063
              445.5
                                  1.38E+04
                                                                                      444.9
                                                                                                 . 445
                                                                                                           1.38E+04
  .089
              451.4
                         -448
                                  1.39E+04
                                                                          .063
              446.1
                         .451
                                  1.39E+04
                                                                          .089
                                                                                      450.3
                                                                                                 . 448
                                                                                                           1.39E+04
 . 114
 . 140
                         . 454
                                                                          .114
              445.1
                                   1.38E+04
                                                                                      445.2
                                                                                                 .452
                                                                                                           1.39E+04
              444.6
                         .457
                                   1.38E+04
                                                                          . 140
                                                                                      444.7
                                                                                                 . 455
                                                                                                           1.38E+04
  . 165
                                                                         . 165
                                                                                      4444.1
                                                                                                 .458
                                                                                                           1.38E+04
  .317
              456.2
                         .478
                                   1.54E+04
                                                                          .317
                                                                                      450.6
                                                                                                 . 478
                                                                                                           1.44E+04
                                   3.14E+04
  . 394
              541.7
                         . 494
                         .513
                                                                                      471.6
                                                                                                 .489
                                                                                                           1.70E+04
              727.0
                                   2.34E+04
                                                                         . 394
  .470
  .546
              758.2
                         .529
                                   2.17E+04
                                                                         .470
                                                                                      604.8
                                                                                                 .508
                                                                                                           3.82E+04
 .622
                                                                         .546
                                                                                      726.5
                                                                                                 .528
                                                                                                           2.03E+04
              777.5
                         .544
                                  2.16E+04
                                                                         .622
                                                                                      749.0
                                                                                                 .542
                                                                                                           1.91E+04
                         .559
                                   2.11E+04
  .698
              802.7
                                                                                                 .556
                                  2.02E+04
                                                                          .698
                                                                                      775.0
                                                                                                           1.93E+04
 .775
              823.2
                         .574
                                                                                                 .569
                         .588
                                                                                                           1.95E+04
  .851
              844.2
                                  2.01E+04
                                                                          .775
                                                                                      796.7
                         .602
                                   1.99E+04
                                                                         .851
                                                                                      816.5
                                                                                                 .583
                                                                                                           2.00E+04
  .927
              858.8
                                                                          .927
                                                                                      830.7
                                                                                                 .597
                                                                                                           2.05E+04
 1.003
              871.7
                         .616
                                   1.93E+04
                                                                                      847.3
                                                                                                           2.00E+04
                                   1.76E+04
                                                                         1.003
                                                                                                 .611
 1.079
              856.5
                         .629
                         .639
                                                 6.82E+02
                                                                                                           1.84E+04
              825.6
                                   1.59E+04
                                                                         1.079
                                                                                      839.4
                                                                                                 .624
 1.143
                                                                         1.143
                                                                                                                          6.46E+02
 1.181
              764.7
                         . 644
                                   1.30E+04
                                                 2.09E+03
                                                                                      812.2
                                                                                                 .635
                                                                                                           1.70E+04
                                                                                                                          2.02E+03
 1.244
              736.1
                         .652
                                   1.59E+04
                                                                        1.181
                                                                                      755.7
                                                                                                 . 640
                                                                                                           1.41E+04
                                                                        1.244
                         .662
                                   1.67E+04
                                                                                      722.0
                                                                                                 .649
                                                                                                           1.63E+04
 1.308
              816.4
                         .674
                                                                        1.308
                                                                                      804.9
                                                                                                 .659
                                                                                                           1.69E+04
              871.5
                                   1.64E+04
 1.384
              883.4
                         .685
                                                                                      860.5
                                                                                                           1.72E+04
 1.460
                                   1.59E+04
                                                                         1.384
                                                                                                 .671
                         .693
 1.511
              895.1
                                   1.62E+04
                                                                         1.460
                                                                                      875.1
                                                                                                 .682
                                                                                                           1.66E+04
                         .700
                                                                                                           1.67E+04
 1.562
              893.5
                                   1.60E+04
                                                                        1.511
                                                                                      886.0
                                                                                                 .690
                         .708
                                   1.61E+04
                                                                        1.562
                                                                                      884.8
                                                                                                 .698
                                                                                                           1.68E+04
 1.613
              911.6
                         .719
                                                                                                 .706
 1.689
              934.8
                                   1.61E+04
                                                                         1.613
                                                                                      902.3
                                                                                                           1.70E+04
              947.3
                         .730
                                  1.62E+04
                                                                                      925.9
                                                                                                 .717
                                                                                                           1.67E+04
 1.765
                                                                         1.689
                         .738
 1.816
              940.0
                                  1.61E+04
                                                                        1.765
                                                                                      937.6
                                                                                                 .729
                                                                                                           1.69E+04
                         .746
                                  1.78E+04
                                                                        1.816
                                                                                      928.8
                                                                                                 .737
                                                                                                           1.61E+04
 1.867
              916.8
                        .754
 1.918
              918.7
                                  1.65E+04
                                                                        1.867
                                                                                      904.9
                                                                                                 .745
                                                                                                           1.70E+04
 1.994
              923.9
                         .765
                                  1.61E+04
                                                                        1.918
                                                                                      911.0
                                                                                                 .752
                                                                                                           1.60E+04
 2.070
              933.2
                         .777
                                   1.55E+04
                                                                        1.994
                                                                                      917.7
                                                                                                 .763
                                                                                                           1.59E+04
```

2.070

928.8

.774

1.55E+04

```
POINT SERIAL NO. 1157.070 (TIME= 338.50 SEC)
                                                                        POINT SERIAL NO. 1157.081 (TIME= 386.50 SEC)
                                                                        (INFERRED VAPOR TEMP)
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           16.00 MPA
LOOP PRESSURE(PE-3)
                                  16.03 MPA
                                                                        FCV TEMPERATURE (TE-FCV-1T)
                                                                                                          614.1 K
FCV TEMPERATURE(TE-FCV-11)
                                  614.3 K
LHP INLET ENTHALPY
                                                                        LHP INLET ENTHALPY
                                                                                                      1,598E+06 J/KG
                              1.599E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
                                    . 70 MPA
                                                                             PRESSURE
                                                                                                             .70 MPA
    PRESSURE
                                 438.14 K
                                                                             SAT TEMP
                                                                                                         438, 15 K
    SAT TEMP
                               13.36 KG/SEC-M**2
                                                                            MASS FLUX
                                                                                                         13.30 KG/SEC-M**2
    MASS FLUX
                                                                             INLET QUALITY
    INLET QUALITY
                                  .437
                                                                                                           . 436
    INLET ENTHALPY
                              1.599E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                       1.598E+06 J/KG
                                                                        QUENCH FRONT:
QUENCH FRONT:
                                    .547 M
                                                                             ELEVATION
                                                                                                            .625 M
    ELEVATION
    VELOCITY
                                  .0017 M/SEC
                                                                             VELOCITY
                                                                                                           .0016 M/SEC
                                  .519
                                                                                                           .529
    QUALITY
                                                                             QUALITY
NET LHP POWER TO FLUID
                                   0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                            0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                     TV
                             XE
                                  XA
                                                                        (INFERRED VAPOR TEMP)
                                                                                              TV
 (M)
            {M}
                      (K)
                                                                        ELEVATION
                                                                                     DZQF
                                                                                                       XE
                                                                         (M)
                                                                                     (M)
                                                                                              (K)
1.232
             .685
                    567.4 .641 .563
                                                                         1.232
                                                                                     .607
                                                                                             560.0
                                                                                                     .633 .560
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
             TEMP
                         XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                    W/M**2
                                                  W/M##2
                                                                        FLEVATION
                                                                                      TEMP
                                                                                                  XE
                                                                                                           HEAT FLUX
                                                                                                                          HEAT LOSS
 (M)
              (K)
                                                                         (M)
                                                                                                            W/M##2
                                                                                                                           W/M##2
                                                                                       (K)
 .013
              445.2
                         .438
                                   1.38E+04
                                   1.39E+04
                                                                          .013
                                                                                      445.0
                                                                                                 .438
                                                                                                            1.39E+04
 .051
              446.9
                         .443
                                                                          .051
                         445
                                   1.38E+04
                                                                                      446.4
                                                                                                  4443
                                                                                                            1.39E+04
  .063
              444.3
                         .448
                                                                                                 . 444
                                   1.39E+04
                                                                          -063
                                                                                      444.0
                                                                                                            1.38F+04
  .089
              449.4
 . 114
                                   1.38E+04
                                                                          .089
                                                                                      449.0
                                                                                                  .448
                                                                                                            1.39E+04
              4444 . 4
                         .451
                                   1.38E+04
  . 140
              444.3
                         .455
                                                                          . 114
                                                                                      444.0
                                                                                                  .451
                                                                                                            1.38E+04
              443.8
                         .458
                                                                          . 140
  .165
                                   1.38E+04
                                                                                      444.2
                                                                                                            1.38E+04
                                                                                                  .454
  .317
              447.9
                         .478
                                   1.41E+04
                                                                          . 165
                                                                                      443.6
                                                                                                 .457
                                                                                                            1.38E+04
                                                                          .317
 . 394
              459.3
                         . 488
                                   1.52E+04
                                                                                      446.2
                                                                                                  477
                                                                                                            1.40E+04
                                                                          . 394
                                   1.69E+04
                                                                                      452.7
              462.2
                         .499
                                                                                                  .487
                                                                                                            1.45E+04
  470
              619.5
                         .519
                                   4.01E+04
                                                                          .470
                                                                                      452.2
                                                                                                  .497
                                                                                                            1.46E+04
  .546
              719.2
                         .541
                                   2.07E+04
                                                                          .546
                                                                                      465.5
  622
                                                                                                  .508
                                                                                                            1.66E+04
 .698
                                   1.95E+04
              748.2
                         .555
                                                                          .622
                                                                                      600.4
                                                                                                  .528
                                                                                                            3.88E+04
                                                                                      719.3
  .775
                                   1.91E+04
              771.5
                         .568
                                                                          .698
                                                                                                  548
                                                                                                            1.94E+04
                                                                          .775
              792.2
                         .582
                                   1.88E+04
                                                                                      746.0
                                                                                                  .562
                                                                                                           1.88E+04
  .851
                                                                          .851
                                                                                                 .575
              806.5
                         . 595
                                   1.83E+04
                                                                                      769.4
                                                                                                            1.80E+04
  .927
              824.5
                         .608
                                   1.83E+04
                                                                          927
                                                                                      786.2
                                                                                                 .587
                                                                                                            1.79E+04
 1,003
                                   1.75E+04
                                                                         1,003
                                                                                      804.9
 1.079
              822.2
                         .620
                                                                                                 .600
                                                                                                            1.79E+04
                                                 7.471+02
                                                                                      803.6
                                   1.61E+04
                                                                         1.079
                                                                                                 -613
                                                                                                            1.76E+04
 1.143
              796.3
                         .630
                         .635
 1.181
              744.4
                                   1.34E+04
                                                 2.17E+03
                                                                         1.143
                                                                                      779.4
                                                                                                 .623
                                                                                                            1.58E+04
                                                                                                                          1.11E+03
 1,244
              704.7
                         . 644
                                   1.59E+04
                                                                         1.181
                                                                                      732.9
                                                                                                 .628
                                                                                                            1.33E+04
                                                                                                                          2.23E+03
              791.9
                         .654
                                   1.68E+04
                                                                         1.244
                                                                                      690.4
                                                                                                            1.53E+04
 1,308
                                                                                                 .636
                                   1.66E+04
              848.2
                         .665
 1.384
                                                                         1.308
                                                                                      777.7
                                                                                                 . 646
                                                                                                            1.70E+04
              864.7
                         .677
                                   1.62E+04
 1.460
                                                                         1.384
                                                                                      833.3
                                                                                                 . 558
                                                                                                            1.71E+04
              875.8
                                   1.67E+04
 1.511
                         . 685
                                                                         1.460
                                                                                      853.5
                                                                                                 .670
                                                                                                            1.65E+04
              872.3
                         .693
                                   1.79E+04
                                                                         1.511
                                                                                      858.8
                                                                                                 .678
                                                                                                            1.78E+04
 1.562
                                   1.77E+04
              890.1
                         .701
                                                                         1.562
                                                                                      849.1
 1.613
                                                                                                 .686
                                                                                                            1.82E+04
 1.689
              914.8
                         .713
                                   1.73E+04
                                                                         1.613
                                                                                      871.6
                                                                                                 .694
                                                                                                            1.66E+04
                                                                                                 .706
 1.765
              928.9
                         725
                                   1.68E+04
                                                                         1.689
                                                                                      900.3
                                                                                                            1.62E+04
                         .733
                                                                                                 .717
 1.816
              920.9
                                   1.53E+04
                                                                         1.765
                                                                                      915.0
                                                                                                            1.56E+04
 1.867
              896.9
                         .740
                                   1.57E+04
                                                                         1.816
                                                                                      909.5
                                                                                                 .724
                                                                                                            1.48E+04
                         .747
 1.918
              905.1
                                   1.54E+04
                                                                         1.867
                                                                                      886.7
                                                                                                 .731
                                                                                                            1.56E+04
                         .758
 1.994
              913.9
                                   1.48E+04
                                                                         1.918
                                                                                      898.1
                                                                                                 .739
                                                                                                            1.55E+04
                                                                                                 .750
 2.070
              926.0
                         .768
                                   1.45E+04
                                                                         1.994
                                                                                      909.3
                                                                                                            1.49E+04
```

923.3

.760

1.44E+04

842.0

829.1

857.8

888.9

906.8

900.8

878.0

890.5

904.0

921.3

.679

.688

.696

.708

.720

.728

. 735

. 743

. 754

. 765

1,511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

1.64E+04

1.79E+04

1.89E+04

1.78E+04

1.71E+04

1.63E+04

1.55E+04

1.64E+04

1.61E+04

1.56E+04

1.50E+04

INEL POST-CHE EXPERIMENT NO. 157 INEL POST-CHE EXPERIMENT NO. 157 POINT SERIAL NO. 1157.090 (TIME= 427.50 SEC) POINT SERIAL NO. 1157.101 (TIME= 484.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.04 MPA LOOP PRESSURE(PE-3) 16.12 MPA FCV TEMPERATURE(TE-FCV-1T) 614.2 K FCV TEMPERATURE (TE-FCV-1T) 614.3 K LHP INLET ENTHALPY 1.599E+06 J/KG LHP INLET ENTHALPY 1.599E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE .70 MPA .70 MPA PRESSURE SAT TEMP 438.07 K SAT TEMP 438.14 K MASS FLUX 13.31 KG/SEC-M##2 MASS FLUX 13.25 KG/SEC-M**2 INLET QUALITY -437 INLET QUALITY .437 INLET ENTHALPY 1.599E+06 J/KG INLET ENTHALPY 1.599E+06 J/KG QUENCH FRONT: QUENCH FRONT: .691 M FLEVATION ELEVATION .774 M VELOCITY .0016 M/SEC VELOCITY .0013 M/SEC QUALITY .538 QUALITY .548 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (INFERRED VAPOR TEMP) (M) (M) (K) ELEVATION DZQF XA (M) (M) (K) 1.232 .541 543.2 .635 .570 1.232 .458 510.0 .630 .584 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) (K) ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 .013 444.8 . 438 1.39E+04 .013 .051 446.2 . 443 1.39E+04 444.7 .439 1.40E+04 1.39E+04 .063 443.8 . 445 .051 446.2 . 4444 1.40E+04 .089 448.6 .448 1.39E+04 .063 443.7 . 445 1.40E+04 .114 443.8 .451 1.39E+04 .089 448.5 .449 1.40E+04 . 140 444.1 . 455 1.39E+04 . 114 443.7 .452 1.40E+04 . 165 443.5 1.39E+04 .140 . 458 444.0 . 455 1.40E+04 .317 445.3 .478 1.40E+04 . 165 443.4 .458 1.40E+04 . 394 449.5 . 488 1.43E+04 .317 444.6 .478 1.41E+04 .470 449.0 .498 1.43E+04 . 394 447.3 .489 1.42E+04 .546 456.1 .508 1.49E+04 .470 446.7 .499 1.41E+04 .519 1.66E+04 .622 453.0 .546 450.6 .509 1.44E+04 .698 666.7 .540 4.08E+04 .622 446.3 .519 1.43E+04 .775 719.5 .561 1.99E+04 .698 462.9 .530 1.62E+04 .851 747.1 .575 1.91E+04 .775 613.9 .548 3.53E+04 .588 1.84E+04 .927 766.0 .851 714.5 .568 1.98E+04 1.003 784.4 .601 1.84E+04 .927 737.4 .582 1.92E+04 1.079 786.7 .614 1.76E+04 1,003 757.9 . 595 1.91E+04 1.143 765.1 .624 1.63E+04 7.30E+02 1.079 766.1 .608 1.79E+04 1.181 723.5 .629 1.38E+04 1.94E+03 1.143 747.0 .619 1.70E+04 2.72E+02 1.244 677.5 .638 1.58E+04 1,181 710.6 .624 1.45E+04 1.60E+03 1.308 764.5 .647 1.67E+04 1.244 660.4 .633 1.57E+04 820.2 1.384 .659 1.66E+04 1.308 747.9 .643 1.67E+04 1.460 .671

1.384

1,460

1.511

1,562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

804.8

828.7

816.9

798.4

834.5

870.7

893.3

887.3

864.1

880.3

896.4

915.7

.655

.666

.675

.684

.693

.706

.718

.726

.734

.742

. 753

.764

1.68E+04

1.69E+04

1.93E+04

1.91E+04

1.81E+04

1.78E+04

1.73E+04

1.63E+04

1.69E+04

1.61E+04

1.55E+04

1.55E+04

910.8

POINT SERIAL	NO	1157 110	/ TIME =	546 50	SECT

LOOP PRESSURE(PE-3) 16.08 MPA FCV TEMPERATURE (TE-FCV-11) 614.5 K LHP INLET ENTHALPY 1.601E+06 J/KG TEST SECTION: PRESSURE .70 MPA SAT TEMP 438.20 K MASS FLUX 13.32 KG/SEC-M**2 INLET QUALITY .438 INLET ENTHALPY 1.601E+06 J/KG QUENCH FRONT: ELEVATION .856 M VELOCITY .0013 M/SEC QUALITY .557 NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.232 .376 480.0 .621 .593

HALL TEMPER	ATURE MEASU TEMP	REMENT LOC	ATION INFORMAT HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
	2.5. W			
.013	444.5	.439	1.40E+04	
.051	445.7	141414	1.40E+04	
.063	443.4	. 446	1.40E+04	
.089	448.0	,449	1.40E+04	
. 114	443.4	. 453	1.40E+04	
. 140	443.8	. 456	1.40E+04	
. 165	443.1	. 459	1,401+04	
.317	444.0	.479	1.40E+04	
. 394	445.7	. 489	1.41E+04	
.470	445.2	.499	1.41E+04	
.546	447.7	.509	1.42 € + 04	
.622	443.7	.519	1.41E+04	
.698	452.0	.529	1.45E+04	
.775	454.2	.540	1.53E+04	
. 851	563.9	.556	3.07E+04	
.927	708.5	.574	1.88E+04	
1.003	732.5	.587	1:85E+04	
1.079	744.9	.599	1.75E+04	
1.143	727.6	.610	1.72E+04	
1.181	696.9	.615	1.43E+04	1.66E+03
1.244	642.2	.624	1.52E+04	
1.308	732.8	.633	1.72E+04	
1.384	791.5	.645	1.71E+04	
1.460	817.0	.657	1.66E+04	
1.511	791.5	.665	1.71E+04	
1.562	772.0	.673	1.77E+04	
1.613	814.8	.682	1.76E+04	
1.689	854.4	.694	1.71E+04	
1.765	879.2	.706	1.69E+04	
1.816	875.0	.714	1.59E+04	
1.867	852.6	.721	1.65E+04	
1.918	870.6	.729	1.618+04	
1.994	890.1	.740	1.58E+04	
1.774	090.1	. 140	1.306.704	

. 751

1.50E+04

POINT SERIAL NO. 1157.120 (TIME= 595.50 SEC)

LOOP PRESSURE(PE-3) 16.11 MPA FCV TEMPERATURE (TE-FCV-1T) 614.6 K LHP INLET ENTHALPY 1.602E+06 J/KG TEST SECTION: PRESSURE . 70 MPA SAT TEMP 438.15 K MASS FLUX 13.32 KG/SEC-M**2 INLET QUALITY .438 INLET ENTHALPY 1.602E+06 J/KG QUENCH FRONT: .923 M ELEVATION VELOCITY .0014 M/SEC QUALITY .568 0.0 W NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1,232 .309 474.6 .623 .599

ELEVATION	TEMP	. Xf	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	444.5	. 440	1.41E+04	
.051	445.7	. 445	1.40E+04	
.063	443.4	.446	1.40E+04	
.089	447.8	.450	1.40E+04	
. 114	443.6	. 453	1.39E+04	
. 140	443.8	.456	1.40E+04	
. 165	443.2	,460	1.40E+04	
.317	443.6	.480	1.41E+04	
. 394	445.0	.490	1.41E+04	
.470	444.4	.500	1.42E+04	
.546	446.4	.510	1.42E+04	
.622	442.9	.520	1.41E+04	
.698	448.9	.530	1.44E+04	
.775	448.4	.540	1.45E+04	
. 851	463.7	.551	1.60E+04	
.927	620.1	.569	3.53E+04	
1.003	710.1	.588	1.80E+04	
1.079	727.3	.600	1.71E+04	
1.143	712.3	.610	1.60E+04	
1.181	685.5	.616	1.57E+04	
1.244	628.8	.625	1.49E+04	
1.308	719.7	. 634	1.56E+04	
1.384	778.2	.645	1.52E+04	
1.460	805.1	656	1.54E+04	
1.511	768.8	.664	1.93E+04	
1.562	754.2	.672	1.69E+04	
1.613	798.2	.680	1.65E+04	
1.689	840.0	.692	1.61E+04	
1.765	866.4	.703	1.57E+04	
1.816	861.9	.710	1.48E+04	
1.867	840.8	.717	1.57E+04	
1.918	861.4	.725	1.57E+04	
1.994	881.9	.736	1.52E+04	
2.070	904.9	.747	1.54E+04	

POINT SERIAL NO. 3157.120 (TIME= 594.50 SEC) POINT SERIAL NO. 3157.130 (TIME=	CCO EO CECA
	000.50 SEC)
LOOP PRESSURE(PE-3) 16.11 MPA LOOP PRESSURE(PE-3) 16	5.13 MPA
FCV TEMPERATURE(TE-FCV-1T) 614.6 K FCV TEMPERATURE(TE-FCV-1T) 61	14.8 K
LHP INLET ENTHALPY 1.602E+06 J/KG LHP INLET ENTHALPY 1.603E	+06 J/KG
TEST SECTION: TEST SECTION:	
PRESSURE 70 MPA PRESSURE	.70 MPA
SAT TEMP 438.11 K SAT TEMP 438	3.24 K
MASS FLUX 13 34 KG/SEC-M**2 MASS FLUX 13	1.17 KG/SEC-M**2
INLET QUALITY 438	439
INIET ENTHALPY 1.602E+06.1/kg INIET ENTHALPY 1.603E	+06 J/KG
QUENCH FRONT:	
FIFVATION 921 M FIFVATION 1.	003 M
VELOCITY ONLY MASEC VELOCITY O	0011 M/SEC
OHALITY 568 OHALITY	579
NET THE POWER TO FILLID O O W NET THE POWER TO FILLID	0.0 4
LOOP PRESSURE PE-3 16.11 MPA	0.0 "
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION VAPOR TEMPERATURE MEASUREMENT LOCATION ELEVATION DZQF TV XE XE	ON INFORMATION
ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE	XA
(M) (M) (K)	
1.841	610
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATIO	ON INFORMATION
FLEVATION TEMP XF HEAT FLUX HEAT LOSS FLEVATION TEMP XF H	FAT FLUX HEAT LOSS
(M) (K) W/M**2 W/M**2 (M) (K)	M/M**5 M/M**5
.013 444.5 .440 1.40€+04 .013 444.5 .440 1	.40E+04
.051 445.7 .445 1.418+04 .051 445.8 .445 1	.41E+04
.063 443.4 .446 1.41E+04 .063 443.5 .447 1	.41E+04
.089 447.8 .450 1.40£+04 .089 447.8 .450 1	.41E+04
.114 443.6 .453 1.40E+04 .114 443.9 .454 1	.41E+04
.140 443.8 .456 1.408+04 .140 444.0 .457 1	.40E+04
.165 443.2 .460 1.41E+04 .165 443.3 .460 1	.40E+04
.317 443.6 .480 1.41E+04 .317 443.4 .480 1	.41E+04
.394 445.0 .490 1.41E+04 .394 444.5 .490 1	.41E+04
.470 444.4 .500 1.42E+04 .470 443.8 .500 1	.41E+04
.546 446.4 .510 1.42E+04 .546 445.5 .511 1	.41E+04
.622 442.9 .520 1.41E+04 .622 442.5 .521 1	.41E+04
.698 448.9 .530 1.44E+04 .698 447.1 .531 1	.42E+04
.775 448.4 .540 1.45E+04 .775 446.0 .541 1	.43E+04
.851 464.0 .551 1.60E+04 .851 453.6 .551 1	.47E+04
.927 630.0 .569 3.54E+04 .927 462.4 .562 1	.60E+04
1.003 710.6 .588 1.78E+04 1.003 586.8 .580 3	.29E+04
1.079 727.6 .600 1.70E+04 1.079 701.9 .597 1	.71E+04
1.143 712.5 .610 1.60E+04 1.143 692.9 .607 1	.68E+04
1.181 685.7 .616 1.56E+04 1.181 669.6 .613 1	.67E+04
1.244 629.0 .625 1.49E+04 1.244 593.2 .626 2	.66E+04
1.308 719.9 .634 1.55E+04 1.308 703.4 .639 1	.70E+04
1.384 778.3 .644 1.51E+04 1.384 762.9 .651 1	.67E+04
1.460 805.2 .655 1.54E+04 1.460 790.5 .663 1	.66E+04
1.511 769.4 .663 1.92E+04 1.511 743.7 .671 1	.85E+04
1.562 754.5 .672 1.68£+04 1.562 733.6 .680 1	.74E+04
1.613 798.5 .680 1.64£+04 1.613 780.2 .688 1	.69E+04
1.689 840.2 .691 1.60£+04 1.689 822.9 700 1	.69F+04
1.765 866.6 .703 1.568+04 1.765 851.1 712 1	-65F+04
1.816 862.1 .710 1.475+04 1.816 847.0 720 1	54F+04
1.867 840.9 717 1.565+04 1.867 826.0 727 1	64F+04
1 918 861 5 724 1 56F+04 1 918 919 5 725 1	62F+04
1 994 882 0 735 1 52F+04 1 994 860 8 747 1	50F+0h
2 070 905 0 766 1 565+004 2 070 904 0 750	60F+0h
	. 000 - 000

	INEL POS	I-CHF EXPE	RIMENI NO.	159		INEL PO	SI-CHI EXP	ERIMENI	10, 159	
POINT SERIA	AL NO. 115	59.050 (TIME= 80.5	O SEC)		SERIAL NO. 1				:)
LOOP PRESSI FCV TEMPERA LHP INLET I	URE(PE-3)		16.05 M	1PA	LOOP PR	RESSURE(PE-3) MPERATURE(TE- ET ENTHALPY CTION:		16.	07 MPA	
FCV TEMPERA	ATURE (TE-F	CV-11)	616.6 K		FCV TEM	PERATURE (IE-	FCV-1T)	616	.5 K	
LHP INLET I	ENTHALPY		1.618E+06 J	I/KG	LHP INL	ET ENTHALPY		1.617E+)6 J/KG	
TEST SECTION	ON:		70. 4	ets e	1121 20	GIION:			ZO MOA	
PRESSI	URE		, 70 P	IPA	P1	TE DOURE		427	TO MPA	
SAI II	EMP		61.00 8	G/SEC-M**2	MA	ASS FLUX		61	OF KG/SEC	-M##2
INIET	GHAL LTV		446	O) SEC H-E	TEST SE PR SA MA IN QUENCH	RESSURE AT TEMP ASS FLUX NLET QUALITY NLET ENTHALPY FRONT:		. 4	46	
INLET	ENTHALPY		1.618E+06 J	/KG	16	LET ENTHALPY		1.617E+	06 J/KG	
QUENCH FROM	NI:				QUENCH	FRONT:				
ELEVA	TION		.319 M .0055 M .478 0.0 W		El	EVATION LOCITY JALITY POWER TO FL		. 3)2 M	
AFFOC	ITY		.0055 N	I/SEC	VI	LOCITY		.00	58 M/SEC	
WET LUD DO	UED TO FIN	10	.4/8		NET LIE	POWER TO FU	urn.	. 4	0 4	
NET LIF FOR	HER TO FLO	10	0.0		and the	TURES TO TE	010			
	ERATURE ME	ASUREMENT	LOCATION IN	FORMATION		EMPERATURE M				TION
ELEVATION		TV	XE XA		ELEVATI		TV	XE X	A	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.913	651.5 .	573 .468		1,232	.840	629.9	.573 .4	17	
WALL TEMPE	RATURE MEA	SUREMENT L	OCATION IN	ORMATION	WALL TE	MPERATURE ME	ASUREMENT	LOCATION	INFORMAT	ION
ELEVATION	TEMP	XE	HEAT F	LUX HEAT LOS	SS ELEVATI	ON TEMP	XE	HE	AT FLUX	HEAT LOSS
(M)	(K)		W/M**	5 M/W**5	(M)	(K)		W	/M**2	W/M**2
.013	461.4	.447	3.958	104	.013	457.8	4147	3.1	87E+04	
.051	471.7	.450	4.2164		.051	465.0	450	44 . 1	01E+04	
.063	458.4	.451	3.90E	04	.063	455.6	.451	3.	83E+04	
.089	470.7	. 453	4.03E	104	.089	466.3	.451	3.	92E+04	
. 114	462.0	.455	3.98E4 3.90E4	104	.114	459.0	, 455 , 457 , 459	3.	88E+04	
. 140	458.4	.457	3.90E1	Olt	. 165	452.1	150	3.	87E+04	
. 317	644.8	.478	6 99F	104	.317	541.0	,474	5	95E+04	
. 394	779.6		8.47E+	104	. 394	667.5		8.	14E+04	
.470	851.2		6.09E 8.47E 6.08E 5.45E 5.24E	104	. 470	787.3	.497		52E+04	
.546	872.9	.510	5.45E+	104	.546	847.0			76E+04	
.622	887.1	.518	5.24E+	104	.622	865.2			42E+04	
.698	901.2	.526	5.01E	104	.698	883.2			14E+04	
.775	913.0 925.6	.534	4.92E1	104	.851	896.7 911.0	.533		01E+04 90E+04	
.927	932.4	.548	h 70F4	tOh	.927	919.3	.548		79E+04	
1.003	940.4	.556	4.81E 4.70E 4.60E 4.10E	04	1.003			4.	71E+04	
1.079	907.4	.562	4.10E	104 3.44E+02	1.079	901.7	.562		29E+04	
1.143	879.5	.567	3.70E1	1.931.402		877.7	.567	3.	93E+04	1.23E+03
1.181	823.3	.570	3.16E+	+04 4.39E+03	1.181			3	37E+04	4.87E+03
1.244	787.1	.574	3.021	104	1.244	784.7		3.1	87E+04	
1.308	866.4 924.9	.579	4.12E4	104	1.308	860.9 917.6		4	28E+04 39E+04	
1.384	933.5	.592	4.06E		1,460	929.2			19E+04	
1,511	946.4	.596	4.17E		1.511	940.6			28E+04	
1.562	933.6	.601	4.416		1.562	924.9			45E+04	
1.613	953.0	.605	4.42E+	+04	1.613	944.2	.607	4.1	45E+04	
1.689	978.0	.612	4.32E	104	1.689	970.5		4.	37E+04	
1.765	989.8	.619	4.16E		1.765	984.1	.620	4.3	26E+04	
1.816	985.1	.623	3.86E	104	1.816	980.3	.624	3.4 4.3 3.3 3.3	76E+04	
1.867	952.3 943.8	.627	3 955	NO4	1.867 1.918	946.9	.629	4.	231+04	
1.918	943.8	.631	3.86E 4.14E 3.85E 3.55E 3.35E	104	1.994	946.9 942.4 951.7 951.9	630	3.	76E+04	
2.070	946.8	.642	3.35E	104	2.070	951.9	645	3.	58F+04	
2.010	240.0	1046	3.372		2.070	221.3	.047	3.,	102.104	

2.070

953.1

955.5

.636

.641

3.73E+04

3.61E+04

INEL POST-CHF EXPERIMENT NO. 159 INEL POST-CHE EXPERIMENT NO. 159 POINT SERIAL NO. 1159.070 (TIME= 107.50 SEC) POINT SERIAL NO. 1159.080 (TIME= 120.50 SEC) LOOP PRESSURE(PE-3) 16.06 MPA LOOP PRESSURE(PE-3) 15.97 MPA FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-1T) 616.4 K 616.4 K LHP INLET ENTHALPY 1.616E+06 J/KG LHP INLET ENTHALPY 1.617E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE PRESSURE .70 MPA .70 MPA SAT TEMP 437.88 K SAT TEMP 437.84 K MASS FLUX 61.15 KG/SEC-M**2 MASS FLUX 61.10 KG/SEC-M**2 INLET QUALITY . 446 INLET QUALITY 446 INLET ENTHALPY 1.616E+06 J/KG INLET ENTHALPY 1.617E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .470 M ELEVATION .541 M VELOCITY .0054 M/SEC VELOCITY .0054 M/SEC QUALITY .492 QUALITY .498 NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (M) (K) 1.232 .762 607.1 .572 .485 1.232 .691 583.9 .571 .494 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX XE HEAT LOSS W/M##2 (M) (K) W/M**2 W/M##2 (M) (K) W/M**2 .447 .013 .013 455.5 3.82E+04 453.8 .447 3.82E+04 . 450 .051 461.0 3.90E+04 .051 458.4 .450 3.86E+04 .063 454.1 .450 3.79E+04 .063 452.9 .451 3.79E+04 .089 .452 .089 463.8 3.85E+04 461.6 . 453 3.84E+04 . 114 456.9 . 454 3.83E+04 . 114 455.1 . 455 3.82E+04 . 140 .456 3.77E+04 451.4 .140 450.5 .456 3.77E+04 . 165 452.1 .458 3.81E+04 .165 450.8 . 458 3.78E+04 .317 476.7 .471 4.42E+04 .317 468.3 .471 4.09E+04 . 394 551.2 .480 7.29E+04 . 394 493.2 .477 4.39E+04 .470 .470 684.8 .492 8.57E+04 565.6 .487 8.03E+04 .546 .546 785.0 .505 8.33E+04 708.4 .499 8.56E+04 .622 839.3 .516 5.62E+04 .622 779.4 .512 7.59E+04 .698 863.1 .524 5.16E+04 .698 841.5 .522 5.49E+04 4.96E+04 .775 879.2 532 .775 861.5 .530 5.16E+04 .851 .851 895.8 .539 4.81E+04 880.9 .538 4.94E+04 .545 .547 4.70E+04 .927 905.7 .927 892.6 4.80E+04 1.003 916.3 .554 4.62E+04 1,003 904.3 .553 4.72E+04 1.079 895.1 .561 4.26E+04 1.62E+02 1.079 888.0 .560 4.39E+04 .566 1.143 3.87E+04 2.11E+03 1.143 868.0 .565 873.4 4.07E+04 1.86E+03 .569 1.181 3.32E+04 5.51E+03 1.181 818.1 821.3 .568 3.51E+04 5.12E+03 1.244 780.2 .573 3.87E+04 1.244 775.2 .573 4.00E+04 4.21E+04 1.308 854.7 .578 1.308 848.8 .578 4.29E+04 903.2 1.384 910.0 .585 4.29E+04 1.384 .585 4.35E+04 .591 924.1 .591 4.15E+04 919.2 1.460 1.460 4.23E+04 4.18E+04 1.511 934.9 . 596 1.511 929.4 .596 4.26E+04 .600 4.29E+04 1.562 917.1 1.562 910.4 .600 4.33E+04 929.7 1.613 .604 4.28E+04 936.4 1.613 .605 4.34E+04 .611 1.689 963.7 .611 4.23E+04 1.689 957.8 4.27E+04 1.765 978.8 .617 4.13E+04 1.765 974.1 .618 4.20E+04 3.84E+04 975.9 .622 1.816 971.9 1.816 .622 3.90E+04 .626 4.11E+04 938.1 1.867 942.1 1.867 .626 4.14E+04 .630 3.90E+04 .630 3.98E+04 1.918 941.0 1.918 939.6

1.994

2.070

953.8

957.9

.636

.642

3.85E+04

3.72E+04

	1365.5. 7 55.51		minumi mu. 199			THES. TW	or our tar	CHIPPE	. 110.	
POINT SERIA	AL NO. 315	9.110 (TIME= 161.50 SEC	()	POINT SERIA	AL NO. 3	159.120	TIME=	172.50 SEC	,
LOOP PRESSE	URE(PE-3) ATURE(TE-FO	V-11)	16.11 MPA 616.3 K 1.615E+06 J/KG		LOOP PRESSI FCV TEMPER/ LHP INLET I	URE(PE-3) ATURE(TE-1	FCV-1T)	6	6.12 MPA 16.3 K	
LHP INLET I	ENTHALPY		1.615E+06 J/KG		LHP INLET I	ENTHALPY		1.615	E+06 J/KG	
TEST SECTIO	DN:				TEST SECTION	DN:				
PRESSI	URE		. 70 MPA		PRESSI	URE		100000	.70 MPA	
SAI II	EMP		437.88 K	*****	SAT TE	EMP		43	7.89 K	
MASS I	CHALLTY		01.37 KG/SEC	-M==5	MASS	CHALLTY		. 6	1.36 KG/SEC	-M==5
INLET	ENTHAL PV		1 6155+06 1/40		INLET	ENTHAL DV		1 615	C+06 1/KC	
QUENCH FROM	WI.		1.0192-00 3780		OUENCH FROM	MI.		1.013	L-00 3/10	
ELEVAT	TION		.774 M		ELEVA	TION			.843 M	
VELOC	ITY		.0065 M/SEC		VELOC	ITY			0060 M/SEC	
QUALI	IY		.517		QUALI	3 Y			.524	
NET LHP PO	WER TO FLUI	0	0.0 W	:-M**2	NET LHP POV	WER TO FLI	UID		0.0 W	
VAPOR TEMPE	ERATURE MEA	SUREMENT	LOCATION INFORMA	ATION	VAPOR TEMPE	ERATURE ME	EASUREMENT	LOCAT	ION INFORMA	TION
(M)	(M)	(K)	AE AA		(M)	(M)	(K)	AL.	AA	
1.841		678.6 .			1.841			.628		
WALL TEMPER	RATURE MEAS	SUREMENT L	OCATION INFORMAT	HEAT LOSS W/M**2	WALL TEMPER	RATURE MEA	ASUREMENT	LOCATI	ON INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(H)	(K)		M/Ws#5	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244 1.308 1.384 1.460 1.511 1.562 1.613 1.689 1.765	(K)			M/W##5	M/W**5
.013	450.9	.446	3.81E+04		.013	450.4	. 446	300	3.81E+04	
.051	454.3	.449	3.82E+04		.051	453.7	. 449		3.82E+04	
.063	450.5	.450	3.81E+04		.063	450.1	,450		3.81E+04	
.089	457.7	,452	3.82E+04		.089	457.4	.452		3.83E+04	
.114	hh0 2	454	3 705+04		140	100 O	156		3 70F+0h	
. 165	449.2	458	3 80F+0h		165	449.0	457		3.80F+04	
.317	457.5	.469	3.88E+04		.317	456.1	.469		3.87E+04	
. 394	472.7	.475	4.03E+04		. 394	469.3	.475		4.00E+04	
.470	472.4	.482	4.04E+04		. 470	469.3	.481		3.97E+04	
.546	486.4	.488	4.37E+04		.546	479.3	.488		4.20E+04	
.622	476.1	. 495	4.81E+04		.622	467.2	. 494		4.20E+04	
.698	5/6.4	. 505	7.591+04		.698	508.2	.502		0.691+04	
.775	769 2	531	0.335+04		.775	708 0	526		305+04	
.927	835.5	542	5 92F+0h		927	787 2	530		7 72F+0h	
1.003	854.0	551	5 34F+04		1.003	833.9	549		5.71E+04	
1.079	855.1	.559	4.83E+04		1.079	842.4	.557		5.01E+04	
1.143	837.4	.565	4.69E+04	6.25E+02 3.52E+03	1.143	825.8	- 563		4.89E+04	
1.181	797.4	.568	4.07E+04	3.52E+03	1.181	789.0	.567		4.15E+04	3.83E+03
1.244	745.3	.574	4.46E+04		1.244	734.5	.572		4.49E+04	
1.308	820.8	.580	4.68E+04		1.308	810.6	.578	h	4.74E+04	
1.384	874.4	.587	4.69E+04		1.384	864.3	. 586		4.75E+04	
1.460	895.1	- 594	4.551+04		1.460	887.8	. 593		4.61£+04	
1.511	904.8	.598	4.592+04		1.511	896.2	597		4.65E+04	
1.562	003.3	608	4.04E*04		1.502	873.9	.602		4.69E+04	
1.689	933.7	.615	4.57E+04		1.689	925.3	614		4.62E+04	
1.765	953.3	.622	4.49E+04		1.765	945 6	621		4.56E+04	
7. 7. 7. 75. 66. 66	952.7	.626	4.23E+04		1.816	945.4	.626		4.29E+04	
1.816	020 E	.631	4.43E+04		4 44.7	913.6	.630		4.51E+04	
1.816	260.2					and the same of the	2.25			
1.816 1.867 1.918	927.8	.635	4.31E+04		1.918	922.4	.032		4.381+04	
1.816 1.867 1.918 1.994 2.070	927.8 945.9	.635	W/M**2 3.81E+04 3.82E+04 3.81E+04 3.81E+04 3.81E+04 3.81E+04 3.79E+04 3.80E+04 4.03E+04 4.04E+04 4.37E+04 4.81E+04 7.59E+04 8.60E+04 9.32E+04 5.34E+04 4.69E+04 4.69E+04 4.69E+04 4.55E+04 4.59E+04		1.918 1.994 2.070	925.3 945.6 945.4 913.6 922.4 941.0 951.4	.641		4.65E+04 4.69E+04 4.62E+04 4.62E+04 4.56E+04 4.51E+04 4.31E+04 4.34E+04 4.25E+04	

POINT SERI	AL NO. 3159	.130 (TI	ME= 186.50 SEC		POINT SERIA	L NO. 31	59.140	(TIME= 198	.50 SEC)
LOOP PRESS	URE(PE-3)		16.08 MPA	-M**2	LOOP PRESSU	RE(PE-3)		16.02	MPA	
FCV TEMPER	ATURE(TE-FCV	(-11)	616.4 K		FCV TEMPERA	TURE (TE-F	CV-1T)	616.5	K	
LHP INLET	ENTHALPY	1.	616E+06 J/KG		LHP INLET E	NTHALPY		1.617E+06	J/KG	
TEST SECTI	ON:		20.000		TEST SECTIO	N:		100.00		
PHESS	URE		. 70 MPA		PRESSU	RE		. 70	MPA	
SALI	EMP		437.97 K	WHA O	SALTE	MP		437.88	K	*****
MASS	PLUX.		01.37 KG/SEC	-M**2	MASS F	LUX		61.41	KG/SEC	-M##5
INLET	CHTHAL DV		614E+06 1/VC		INLET	ENTUALDY		1 6175406	1100	
OUENCH EDO	ENIMALET.		DIOLTUD J/KU		OUT NOW FROM	ENTHALPY		1.01/12/00	J/KG	
FI FVA	TION		02h M		QUENCH FROM	LON		002		
VELOC	LIV		0056 M/SEC		VELOCI	TV		0050	MISEC	
QUALL	IV		531		LIAUO	Y		535	H/ SEC	
NET LHP PO	WER TO FLUID		0.0 W		NET LHP POW	ER TO FLU	D	0.0	W	
VAPOR TEMP	ERATURE MEAS	UREMENT LO	CATION INFORMA	TION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	NEORMA	TION
ELEVATION	DZQF	TV XE	XA		ELEVATION	DZQF	TV	XE XA		
(M)	(M)	(K)			(M)	(M)	(K)			
	.917 6		7 .515		1.841			622 E10		
								.622 .519		
WALL TEMPE	RATURE MEASU	REMENT LOC	ATION INFORMAT	ION	WALL TEMPER	ATURE MEAS	SUREMENT I	OCATION II	FORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		M/W**5	HEAT LOSS W/M**2	(M)	(K)		W/M	*2	W/M**2
.013	449.9	. 446	3.81E+04 3.82E+04 3.81E+04 3.83E+04 3.83E+04 3.81E+04 3.81E+04 3.97E+04 4.09E+04 4.09E+04 4.49E+04 5.19E+04 8.64E+04 8.08E+04 7.98E+04 5.35E+04 5.35E+04 4.78E+04 4.78E+04		.013	449.5	. 447	3.831	+04	
.051	453.1	. 449	3.82E+04		.051	452.6	.450	3.84	+04	
.063	449.8	. 450	3.81E+04		.063	449.5	.451	3.821	+04	
.089	456.4	.452	3.83E+04		.089	455.9	.453	3.84	+04	
. 114	450.9	.454	3.831.+04		.114	450.4	. 455	3.831	+()4	
140	448.8	420	3.81E+04		. 140	448.7	.457	3.811	+04	
. 102	440.7	420	3.812704		.165	448.6	. 458	3.811	+04	
304	454.0	476	3.006*04		.317	423.0	. 470	3.001	+04	
470	466 1	182	3.97E+04		470	463.2	1182	3 941	+04	
546	472 9	488	h 09F+0h		546	468 8	488	4 031	+04	
.622	461.4	494	4.02E+04		622	458.2	494	3 976	+04	
.698	488.3	.501	4.49E+G4		698	479.4	501	4.25	+04	
. 775	492.0	.508	5.19E+04		.775	479.4	.507	4.356	+04	
.851	565.4	.519	8.64E+04		.851	498.1	.515	5.256	+04	
.927	703.4	.532	8.08E+04		.927	586.7	.525	7.721	+04	
1.003	755.2	.544	7.98E+04		1.003	666.7	.536	7.738	+04	
1.079	822.4	.554	5.35E+04		1.079	784.7	.547	6.768	+04	
1.143	808.5	.561	5.09E+04		1.143	790.7	. 555	5.316	+01:	
1.181	775.9	.564	4.78E+04		1.181	762.3	.559	4.968	+04	
1.244	719.9	.570	4.54E+04 4.80E+04		1.244	706.7	. 565	4.598	+04	
1.300	190.0	. 210	4.80E+04		1.308	784.0	.571	4.826	+04	
1.384	850.5	.584	4.82E+04		1.384	838.0	.579	4.861	+04	
1.460	875.4	.591	4.68E+04 4.71E+04		1.460	866.0	. 586	4.716	+04	
1.511	850.5 876.4 884.2 861.1 881.7 915.0 934.9 903.7 914.6 933.7 945.4	.601	4.71E+04		1.511	8/3.4	.591	4.768	+04	
1.613	881 7	.606	4.76E+04 4.73E+04 4.67E+04		1.562	849.5	.596	4.80E	+04	
1.689	011.7	.613	4. F3E+04		1.013	870.8	.601	4.758	+04	
1.765	935 0	.620	4.64E+04		1 765	903.9	.608	4.736	+04 +0h	
1.816	934 9	.624	4.64E+04 4.37E+04		1 816	925.5	630	4.681	+04	
1.867	903.7	.629	4.60F+04		1 867	89h h	624	4.416	+04	
1.918	914.6	.634	4.46F+04		1 918	907.2	620	h 516	+04	
1.994	933.7	.640	4.60E+04 4.46E+04 4.43E+04 4.36E+04		1.994	926.5	636	4.516	+04	
2.070	945.4	.647	4.36E+04		2.070	939.2	643	4 425	+04	
					2.010	237.2	.043	4.466	- 04	

929.8

.642

4.52E+04

```
POINT SERIAL NO. 3159.150 (TIME= 214.50 SEC)
                                                                      POINT SERIAL NO. 3159.160 (TIME= 230.50 SEC)
                                                                      LOOP PRESSURE(PE-3)

FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY

TEST SECTION:

15.98 MPA
616.2 K
1.615E+06 J/KG
LOOP PRESSURE(PE-3) 16.10 MPA
FCV TEMPERATURE(TE-FCV-1T) 616.4 K
LHP INLET ENTHALPY 1.616E+06 J/KG
TEST SECTION:
                       .70 MPA
437.92 K
61.42 KG/SEC-M**2
.445
1.616E+06 J/KG
    PRESSURE
                                                                                                          .70 MPA
                                                                           PRESSURE
                                                                                                  437.89 K
61.43 KG/SEC-M**2
.445
    MASS FLUX
                                                                           SAT TEMP
                                                                           MASS FLUX
    INLET QUALITY
                                                                           INLET QUALITY
    INLET ENTHALPY
                                                                           INLET ENTHALPY
                                                                                                1.615E+06 J/KG
                                                                      QUENCH FRONT:
QUENCH FRONT:
                              1.084 M
                                                                                                   1.191 %
    ELEVATION
                                                                           ELEVATION
    VELOCITY
                               .0055 M/SEC
                                                                           VELOCITY
                                                                                                       .0072 M/SEC
                                -541
                                                                           QUALITY
                                                                                                       .551
    QUALITY
NET LHP POWER TO FLUID
                                                                      NET LHP POWER TO FLUID
                                 0.0 W
                                                                                                        0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                      ELEVATION DZQF TV XE XA
                                                                                   (M)
            (M)
                                                                       (M)
 (M)
                     (K)
                                                                                             (K)
1.841
            .757 605.5 .621 .528
                                                                       1.841
                                                                                   .650 578.9 .621 .541
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                      WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                      ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                   W/M##2
 (M)
              (K)
                                                W/M**2
                                                                       (M)
                                                                                     (K)
                                                                                                          W/M**2
                                                                                                                        W/M**2
                     .446
                              3.83E+04
3.84E+04
3.83E+04
                                                                                            .446 3.83E+04
.449 3.84E+04
.450 3.83E+64
             449.1
                                                                                    448.8
 .013
                                                                        .0.3
                       , 449
                                                                                    451.6
  .051
             452.1
                                                                        .051
                        .450
  .063
             449.1
                                                                         .063
                                                                                     448 9
                        .452
                                                                                                     3.84E+04
             455.2
                               3.84E+04
3.83E+04
                                                                                     454.7
                                                                                               .452
  .089
                                                                         .089
                                                                                               . 454
 . 114
             444.8
                        . 454
                                                                        .114
                                                                                    449.5
                                                                                                        3.83E+04
                              3.82E+04
3.82E+04
3.86E+04
3.93E+04
3.94E+04
3.99E+04
3.93E+04
 . 143
             448.5
                        .456
                                                                        . 140
                                                                                    448.4
                                                                                               . 456
                                                                                                        3. P2E+04
 . 165
                        .458
                                                                        . 165
                                                                                               .458
                                                                                                        3.82E+04
             448.3
                                                                                     448.2
                        .470
                                                                        .317
                                                                                               .469
                                                                                                       3.85E+04
  .317
             452.4
                                                                                     451.6
  . 394
                                                                        .394
                                                                                               .475
                                                                                                     3.92E+04
3.91E+04
3.94E+04
3.89E+04
             460.3
                        .476
                                                                                     458.4
             460.3
                                                                                               .481
  .470
                        . 482
                                                                        . 470
                                                                                    458.2
                        .488
                                                                                    461.8
  .546
             464.5
                                                                         .546
                                                                                               .487
                        . 494
 .622
                                                                        .622
                                                                                               .493
             455.0
                                                                                    453.2
                               4.10E+04
             471.7
                        .500
                                                                        .698
                                                                                     467.2
                                                                                               . 499
 .698
                                                                                                         4.03E+04
                               4.15E+04
4.21E+04
5.05E+04
6.90E+04
                        .506
                                                                                               .505
 .775
             470.4
                                                                        .775
                                                                                    465.3
                                                                                                         4.05E+04
                        .513
             485.4
                                                                         .851
                                                                                    478.5
                                                                                               .512
  .851
                                                                                                         4.17E+04
                        .520
  .927
             502.7
                                                                         .927
                                                                                    487.6
                                                                                               .518
                                                                                                         4.39E+04
                                                                                                     4.39E+04
4.21E+04
                        .529
 1.003
             517.0
                                                                       1.003
                                                                                     466.8
                                                                                               .525
                                                                                               .533
 1.079
             692.9
                        . 540
                                7.18E+04
7.66E+04
                                                                       1,079
                                                                                    593.5
                                                                                                         6.59E+04
 1.143
             733.6
                        .549
                                                                       1.143
                                                                                     654.7
                                                                                               . 543
                                                                                                          8.56E+04
                        .555
             721.6
 1.181
                                  7.26E+04
                                                                       1.181
                                                                                    631.8
                                                                                               .549
                                                                                                          8.17E+04
                        .563
                                                                                               .559
 1.244
             686.7
                                  5.04E+04
                                                                       1.244
                                                                                    648.2
                                                                                                          6.70E+04
 1.308
             766.1
                        .569
                                  4.92E+04
                                                                       1.308
                                                                                     742.3
                                                                                                567
                                                                                                         6.34E+04
                                  4.95E+04
                                                                       1.384
 1.384
             820.1
                        .577
                                                                                    803.4
                                                                                               .576
                                                                                                          5.15E+04
                        -584
             851.1
                                  4.80E+04
 1,460
                                                                       1.460
                                                                                    837.3
                                                                                               .583
                                                                                                         4.94E+04
                        .589
                                  4.87E+04
                                                                                               .589
 1.511
             857.4
                                                                       1.511
                                                                                    842.3
                                                                                                          5.04E+04
                                                                                               .594
 1.562
             832.7
                        .594
                                 4.91E+04
                                                                       1,562
                                                                                    816.9
                                                                                                          5.08E+04
 1.613
             855.1
                        .599
                                  4.85E+04
                                                                       1.613
                                                                                    840.8
                                                                                               .599
                                                                                                          4.98E+04
                        .606
 1.689
             888.6
                                4.82E+04
                                                                       1.689
                                                                                    874.8
                                                                                               .606
                                                                                                         4.92E+04
                        .614
                                4.77E+04
 1.765
             911.3
                                                                       1.765
                                                                                    898.4
                                                                                               .614
                                                                                                         4.87E+04
                        .619
 1.816
             911.7
                                  4.52E+04
                                                                       1.816
                                                                                    893.2
                                                                                               .619
                                                                                                         4.61E+04
                                  4.74E+04
                        .623
                                                                                               .624
 1.867
             880.8
                                                                       1.867
                                                                                    868.3
                                                                                                          4.82E+05
                               4.59E+04
             896.1
                                                                                    885.9
 1.918
                        .628
                                                                       1.918
                               4.59E+04
                                                                                               . 528
                                                                                                         4.68F+04
                       .635
                                                                       1.994
1.994
             915.8
                                                                                    905.7
                                                                                               .636
                                                                                                         4.678+04
                                                                                               .643
```

2.070

920.8

4.59E+04

TV

(K)

LOOP PRESSURE(PE-3)

LHP INLET ENTHALPY

PRESSURE

SAT TEMP

MASS FLUX

ELEVATION

VELOCITY

QUALITY

INLET QUALITY

NET LHP POWER TO FLUID

DZQF

(M)

1.448

TEMP

(K) 470.7

490.7

462.8

476.7

466.4

456.4

462.5

561.3

690.2

768.8

824.5

837.7

853.5

864.0

876.4

883.6

889.6

864.6

835.1

786.7 674.3

741.8

838.3

874.7

880.7

861.5

885.0

911.5

927.3

927.5

905.5

899.4

902.7

905.8

.764

.770

.780

.788

5.74E+04

5.16E+04

4.87E+04

4.56E+04

INLET ENTHALPY

TEST SECTION:

QUENCH FRONT:

ELEVATION

ELEVATION

(M)

1.841

(M)

.013

.051

.063

.089

.114

. 140

. 165

.317

. 394

.470

.546

.622

.698

.775

.851

.927

1.003

1.079

1.143

1.181

1.244 1.308

1.384

1.460

1.511

1.562

1.613

1.689

1.765

1.816

1.867

1.918

1.994

2.070

INEL POST-CHE EXPERIMENT NO. 160 POINT SERIAL NO. 3160.080 (TIME= 64.50 SEC) POINT SERIAL NO. 3160.070 (TIME= 58.50 SEC) 16.04 MPA LOOP PRESSURE (PE-3) 16.06 MPA FCV TEMPERATURE (TE-FCV-1T) 616.8 K 616.8 K FCV TEMPERATURE (TE-FCV-1T) 1.619E+06 J/KG 1.619E+06 J/KG LHP INLET ENTHALPY TEST SECTION: .70 MPA PRESSURE .70 MPA SAT TEMP 438.09 K 438.09 K 50.93 KG/SEC-M**2 MASS FLUX 50.96 KG/SEC-M**2 INLET QUALITY .447 . 447 1.619E+06 J/KG INLET ENTHALPY 1.619E+06 J/KG QUENCH FRONT: ELEVATION .470 M .393 M .0127 M/SEC .0128 M/SEC VELOCITY .510 QUALITY .522 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA XE XA (K) (M) (M) 638.7 .771 .637 1.841 1.372 660.3 .757 .614 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS HEAT LOSS XE HEAT FLUX W/M**2 W/M##2 W/M##2 (K) W/M##2 (M) .448 4.31E+04 .013 466.6 .448 4.17E+04 482.1 .051 .452 4.65E+04 .452 4.97E+04 .063 460.1 .453 4.00E+04 . 454 4.12E+04 .089 472.4 .456 4.17E+04 4.37E+04 .456 .459 4.20E+04 .114 463.3 .458 4.03E+04 454.0 3.93E+04 4.12E+04 .140 .461 .461 . 165 458.9 .463 4.04E+04 4.30E+04 .464 .317 492.8 .482 6.35E+04 9.69E+04 . 490 . 394 584.3 .499 1.13E+05 .510 1.23E+05 .522 .534 .470 704.8 1.37E+05 1.33E+05 766.1 .546 1.27E+05 8.74E+04 .546 .554 .566 6.84E+04 .622 815.3 8.56E+04 .569 6.30E+04 .698 835.7 .580 6.62E+04 .581 .592 .775 847.8 .592 6.35E+04 6.12E+04 .851 862.7 .603 5.97E+04 .603 5.80E+04 5.70E+04 .927 870.6 .614 5.83E+04 .614 .624 5.65E+04 1.003 876.9 .625 5.81E+04 .634 4.83E+04 1.079 857.3 .635 5.01E+04 1.143 .641 4.40E+04 830.4 .642 4.61E+04 3.97E+02 .645 3.78E+04 1.01E+03 1.181 785.0 .646 3.97E+04 2.14E+03 .653 6.40E+04 1.244 655.6 .654 5.80E+04 .667 1.28E+05 1.308 660.3.669 1.46E+05 .691 1.26E+05 1.384 809.7 .698 1.64E+05 1.460 .708 5.47E+04 861.6 .719 6.23E+04 .714 .727 5.65E+04 1.511 866.6 6.25E+04 .722 6.12E+04 1.562 844.9 . 735 6.46E+04 .742 .729 5.99E+04 1.613 869.8 6.21E+04 898.1 .754 .740 5.73E+04 1.689 5.96E+04 .750 5.58E+04 1.765 915.2 . 764 5.80E+04 .757 .771 5.28E+04 1.816 915.6 5.53E+04

1.867

1.918

1.994

2.070

892.2

889.9

894.8

900.2

.778

. 785 .795

.804

6.00E+04 5.36E+04

5.16E+04

4.80E+04

POINT SERIAL NO. 3163.090 (TIME		HELL TOO	-GHI EAFER	THERT HO. TOO			INCL PUS	H-CHE EAR	ENTHENT NO. 101	
SAT TEMP MASS FLUX 50.89 RG/SEC-M**2 INLET QUALITY INLET QUALITY INLET QUALITY INLET QUALITY INLET QUALITY INLET QUALITY INLET ENTHALPY INLET ENTHALPY INLET QUALITY INLET ENTHALPY INLET ENTHALPY INLET ENTHALPY INLET ENTHALPY INLET QUALITY INLET QUALIT			A CONTRACTOR OF THE PARTY OF TH)	POINT SER	AL NO. 31	61.080	(TIME= 77.50 SE	C)
SAT TEMP MASS FLUX 50.89 RG/SEC-M**2 INLET QUALITY INLET QUALITY INLET QUALITY INLET QUALITY INLET QUALITY INLET QUALITY INLET ENTHALPY INLET ENTHALPY INLET QUALITY INLET ENTHALPY INLET ENTHALPY INLET ENTHALPY INLET ENTHALPY INLET QUALITY INTERPOPER TO FLUX INTERPOPER TO FL	LOOP PRES FCV TEMPE LHP INLET TEST SECT	SURE (PE-3) RATURE (TE-FO ENTHAL PY ION:	CV-11)	16.05 MPA 616.8 K .619E+06 J/KG		LOOP PRISS FCV TEMPER LHP INLET TEST SECTI	SURE(PE-3) RATURE(TE-F ENTHALPY ION:	CV-1T)	16.03 MPA 616.2 K 1.615E+06 J/KG	
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZOF TV XE XA	PRES SAT MASS INLE	SURE TEMP FLUX T QUALITY		.70 MPA 438.15 K 50.89 KG/SEC .447	-M**2	PRESS SAT 1 MASS INLE	SURE TEMP FLUX QUALITY		.70 MPA 437.92 K 48.93 KG/SE .445	C-M**2
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZOF TV XE XA	QUENCH FRE	ONT: ATION CITY		.546 M .0127 M/SEC		QUENCH FRO	ONT: ATION		.545 M .0097 M/SEC	
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZOF TV XE XA	NET LHP PO	OWER TO FLU	ID	0.0 W		NET LHP PO	WER TO FLU	10	0.0 W	
1.841 1.295 608.7 .782 .663 1.841 1.296 691.3 .800 .633	ELEVATION	PERATURE ME	TV X	OCATION INFORMA	TION	VAPOR TEMP	PERATURE ME DZQF	ASUREMENT	LOCATION INFORM	ATION
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION FLEVATION TEMP XE				82 663					800 633	
.013	0.70700					1.041				TION
.089	ELEVATION (M)	TEMP (K)	XE XE	HEAT FLUX W/M**2	HEAT LOSS W/M**2	ELEVATION (M)	TEMP (K)	SUREMENT I	HEAT FLUX W/M**2	HEAT LOSS W/M##2
.089		463.5	.448	4.08E+04			465.8	. 447	5.97E+04	
.089		475.3	.452	4.43E+04		.051	474.9	.452	6.17E+04	
1.394		450.1	1156	1.90E+04		.063	461,7	,454	5.8/8+04	
1.394	114		450	3 005+04			4/2.7	,428		
1.394	140		460	3.88F+04		140	463.0	466		
1.394			463	3 96E+04		165	457.7	469		
. 394	. 317			4.61E+04		.317	485.2	. 494		
.470 594.2 .508 1.31E+05 .546 711.9 .551 1.08E+05 .546 704.5 .532 1.30E+05 .546 711.9 .551 1.09E+05 .546 711.9 .541 1.04E+05 .541 1.04E+04 .441 1.0	. 394		. 489	6.85E+04		. 394	542.7	.510		
.622 747.8 .555 1.18E+05 .622 761.0 .572 1.15E+05 .698 814.8 .573 8.04E+04 .698 844.5 .593 1.04E+05 .775 829.6 .587 6.70E+04 .775 887.1 .612 8.74E+04 .851 847.6 .599 6.20E+04 .851 907.8 .628 7.74E+04 .927 919.0 .642 7.48E+04 .928E+04 .929E+04 .92	.470		.508	1.31E+65		, 470	619.8	.530	1.08E+05	
.927 919.0 .642 7.48E+04 1.003 863.0 .621 6.01E+04 1.003 930.2 .656 7.32E+04 1.079 848.8 .632 5.20E+04 1.079 915.8 .670 6.83E+04 1.143 824.0 .639 4.87E+04 3.58E+02 1.143 899.5 .681 6.49E+04 2.83E+03 1.181 781.1 .643 4.21E+04 2.79E+03 1.181 850.8 .686 5.65E+04 5.62E+03 1.244 640.7 .651 5.31E+04 1.21E+05 1.308 801.1 .710 9.89E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 764 6.22E+04	.546		532	1.30E+05		.546	711.9	.551	1.09E+05	
.927 919.0 .642 7.48E+04 1.003 863.0 .621 6.01E+04 1.003 930.2 .656 7.32E+04 1.079 848.8 .632 5.20E+04 1.079 915.8 .670 6.83E+04 1.143 824.0 .639 4.87E+04 3.58E+02 1.143 899.5 .681 6.49E+04 2.83E+03 1.181 781.1 .643 4.21E+04 2.79E+03 1.181 850.8 .686 5.65E+04 5.62E+03 1.244 640.7 .651 5.31E+04 1.21E+05 1.308 801.1 .710 9.89E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 764 6.22E+04	.622		.555	1.18E+05		.622			1.15E+05	
.927 919.0 .642 7.48E+04 1.003 863.0 .621 6.01E+04 1.003 930.2 .656 7.32E+04 1.079 848.8 .632 5.20E+04 1.079 915.8 .670 6.83E+04 1.143 824.0 .639 4.87E+04 3.58E+02 1.143 899.5 .681 6.49E+04 2.83E+03 1.181 781.1 .643 4.21E+04 2.79E+03 1.181 850.8 .686 5.65E+04 5.62E+03 1.244 640.7 .651 5.31E+04 1.21E+05 1.308 801.1 .710 9.89E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 764 6.22E+04			.573	8.04E+04		.698	844.5		1.04E+05	
.927 919.0 .642 7.48E+04 1.003 863.0 .621 6.01E+04 1.003 930.2 .656 7.32E+04 1.079 848.8 .632 5.20E+04 1.079 915.8 .670 6.83E+04 1.143 824.0 .639 4.87E+04 3.58E+02 1.143 899.5 .681 6.49E+04 2.83E+03 1.181 781.1 .643 4.21E+04 2.79E+03 1.181 850.8 .686 5.65E+04 5.62E+03 1.244 640.7 .651 5.31E+04 1.21E+05 1.308 801.1 .710 9.89E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 764 6.22E+04			.587	6.70E+04		. 175	887.1	.612	8.74E+G4	
1.079 848.8 632 5.20E+04 1.079 915.8 670 6.83E+04 1.143 824.0 639 4.87E+04 3.58E+02 1.143 899.5 681 6.49E+04 2.83E+03 1.181 781.1 643 4.21E+04 2.79E+03 1.181 850.8 686 5.65E+04 5.62E+03 1.244 640.7 651 5.31E+04 1.21E+05 1.308 801.1 710 9.89E+04 1.308 586.6 664 1.21E+05 1.308 801.1 710 9.89E+04 1.384 662.6 691 1.74E+05 1.384 900.7 727 7.46E+04 1.460 825.6 718 1.55E+05 1.460 919.9 741 6.79E+04 1.511 844.3 732 1.17E+05 1.511 929.8 749 6.72E+04 1.562 825.5 744 6.90E+04 1.562 900.5 758 6.82E+04 1.613 852.8 752 6.50E+04 1.613 922.6 767 6.77E+04 1.613 852.8 752 6.50E+04 1.613 922.6 767 6.77E+04 1.689 883.1 764 6.22E+04 1.689 883.1 764 6.22E+04	027		.599	6.201+04		.851	907.8	.628		
1.079 848.8 632 5.20E+04 1.079 915.8 670 6.83E+04 2.83E+03 1.143 899.5 681 6.49E+04 2.83E+03 1.181 781.1 643 4.21E+04 2.79E+03 1.181 850.8 686 5.65E+04 5.62E+03 1.244 720.3 697 7.12E+04 1.308 586.6 664 1.21E+05 1.308 801.1 710 9.89E+04 1.384 662.6 691 1.74E+05 1.384 900.7 727 7.46E+04 1.460 825.6 718 1.15E+05 1.384 900.7 727 7.46E+04 1.511 844.3 732 1.17E+05 1.511 929.8 749 6.72E+04 1.562 825.5 744 6.90E+04 1.562 900.5 758 6.82E+04 1.613 852.8 752 6.50E+04 1.613 922.6 767 6.77E+04 1.613 852.8 752 6.50E+04 1.613 922.6 767 6.77E+04 1.689 883.1 764 6.22E+04 1.689 883.1 764 6.22E+04	1 003	863.0	621	6 D1E+Oh		1 003	919.0	.042	7 22E+01	
1.181 850.8 .686 5.65E+04 5.62E+03 1.244 640.7 .651 5.31E+04 1.244 720.3 .697 7.12E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.55E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.613 853.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04			632	5 205+04		1.003	015 8		6 835400	
1.181 850.8 .686 5.65E+04 5.62E+03 1.244 640.7 .651 5.31E+04 1.244 720.3 .697 7.12E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.55E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.613 853.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04	1.143		.639	4.87E+04	3.58F+02				6 495+04	2 835+03
1.244 640.7 651 5.31E+04 1.244 720.3 697 7.12E+04 1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 .764 6.22E+04 1.689 983.1 .764 6.22E+04			.643	4.21E+04	2.79E+03				5.65E+04	
1.308 586.6 .664 1.21E+05 1.308 801.1 .710 9.89E+04 1.384 662.6 .691 1.74E+05 1.384 900.7 .727 7.46E+04 1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+09 1.689 883.1 .764 6.22E+04 1.689 .949.1 1.780 6.51E+09	1.244	640.7	.651	5.31E+04						3.022.03
1.460 825.6 .718 1.15E+05 1.460 919.9 .741 6.79E+04 1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 .764 6.22E+04 1.689 949.1 780 6.61E+04			.664	1.21E+05		1.308				
1.511 844.3 .732 1.17E+05 1.511 929.8 .749 6.72E+04 1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 .764 6.22E+04 1.689 949.1 780 6.1E+04			.691	1.74E+05				.727		
1.562 825.5 .744 6.90E+04 1.562 900.5 .758 6.82E+04 1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04 1.689 883.1 .764 6.22E+04 1.689 949.1 789 6.7E+04	1.460		.718	1.15E+05						
1.613 852.8 .752 6.50E+04 1.613 922.6 .767 6.77E+04	1.511		.732	1.17E+05						
1.689 883.1 764 6.22F+04 1.689 949.1 780 6.61F+04			.744							
1.689 949.1 .780 6.61E+04 1.765 901.5 .775 6.02E+04 1.765 963.4 .792 6.46E+04 1.816 902.1 .782 5.76E+04 1.816 964.5 .800 6.02E+04 1.867 877.2 .790 6.12E+04 1.867 930.3 .808 6.54E+04 1.918 879.2 .797 5.52E+04 1.918 925.3 .816 6.26E+04 1.994 885.2 .807 5.41E+04 1.994 947.6 .828 6.20E+04 2.070 893.0 .817 5.05E+04 2.070 952.6 .840 6.07E+04			. 752				922.6			
1.816 902.1 .782 5.76E+04 1.816 964.5 .800 6.02E+04 1.867 930.3 .808 6.54E+04 1.918 879.2 .797 5.52E+04 1.918 925.3 .816 6.26E+04 1.994 885.2 .807 5.41E+04 1.994 947.6 .828 6.20E+04 2.070 893.0 .817 5.05E+04 2.070 952.6 .840 6.07E+04			. 764				949.1	. 780	6.61E+04	
1.867 877.2 .790 6.12E+04 1.867 930.3 .808 6.54E+04 1.918 879.2 .797 5.52E+04 1.918 925.3 .816 6.26E+04 1.994 885.2 .807 5.41E+04 1.994 947.6 .828 6.20E+04 2.070 893.0 .817 5.05E+04 2.070 952.6 .840 6.07E+04			793	5.765404			963.4	. 792	6.46E+04	
1.918 879.2 .797 5.52E+04 1.918 925.3 .816 6.26E+04 1.994 885.2 .807 5.41E+04 1.994 947.6 .828 6.20E+04 2.070 893.0 .817 5.05E+04 2.070 952.6 .840 6.07E+04			700	6 125404			964.5	.800	6.02E+04	
1.994 885.2 .807 5.41E+04 1.994 947.6 .828 6.20E+04 2.070 893.0 .817 5.05E+04 2.070 952.6 .840 6.07E+04			797	5 525404			930.3	.808	6.54E+04	
2.070 893.0 .817 5.05E+04 2.070 952.6 .840 6.07E+04			807	5. 41F+0h			925.3	.816	6.261404	
E.010 992.0 .040 6.07ETU4			.817				947.6	840	6.201404	
				21321.04		2,010	992.0	.040	0.072704	

POINT SER	IAL NO. 316	1.090 (TIME= 85.50 SEC	;)	POINT SERI	AL NO. 3	161.100	(TIME= 93.50	SEC)
LOOP PRES	SURE(PE-3)		15.87 MPA	:-M**2	LOOP PRESS	URE(PE-3)		15.90 MF	'A
FCV TEMPE	RATURE (TE-FC	(V-1T)	616.0 K		FCV TEMPER	ATURE (TE-	FCV-1T)	616.0 K	we
LHP INLET	ENTHALPY		1.614E+06 J/KG		LHP INLET	ENTHALPY		1.614E+06 J/	KG
IEST SECT	TUN:		70 MPA		IEST SECTI	UN:		70 ME	Α.
SAT	TEMP		437 91 K		SAT T	EMP		437.96 K	Charles the short
MASS	FLUX		48.48 KG/SEC	-M**2	MASS	FLUX		48.61 KG	/SEC-M**2
INLE	T QUALITY		. 444		INLET	QUALITY		. 444	
INLE	T ENTHALPY		1.614E+06 J/KG		INLET	ENTHAL PY		1.614E+06 J/	KG
QUENCH FR	ONT:				QUENCH FRO	NT:		200 14	
FLEA	ATTON		.622 M		ELEVA	TION		. 700 M	SEC
OHAL	LTV		.0095 M/SEC		VELOC	114		.0100 M/	SEC
NET LHP P	OWER TO FLUI	D	.622 M .0095 M/SEC .562 0.0 W		NET LHP PO	WER TO FLI	JID	0.0 W	
WARDE TEM	IDEBATURE MEA	CHDEMENT	LOCATION INCORMA	TION	VADOR TEMP	EDATINE MI	ACHDEMENT	LOCATION INF	DEMATION
ELEVATION	DZOF	TV	XE XA	T T T T T T T T T T T T T T T T T T T	ELEVATION	DZQF	TV	XE XA	SISTERI TON
(M)	DZQF (M)	(K)		ATION	ELEVATION (M)	(M)	(K)		
1.841	1.219	670.3 .	808 .650		1.841	1.141	651.1	.812 .664	
WALL TEMP	ERATURE MEAS	SUREMENT L	OCATION INFORMAT	ION	WALL TEMPE	RATURE MEA	ASUREMENT	LOCATION INFO	RMATION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT FL	UX HEAT LOSS
(M)	(K)		W/M**2	HEAT LOSS W/M**2	(M)	(K)		W/M**2	M/W**5
.013	463.4	.446	5.97E+04 6.11E+04 5.96E+04 5.98E+04 5.93E+04 5.83E+04	1.77E+03 5.20E+03	.013	461.3	. 446	5.95E+0 6.05E+0 5.90E+0 5.96E+0 5.91E+0 5.84E+0 5.86E+0	14
.051	470.8	.452	6.11E+04		.051	467.5	.452	6.05E+0	14
.063	460.1	.454	5.902+04		.063	458.7	.054	5.90E+0	124
.089	470.3	.458	5.98E+04		.089	168.2	.458	5.96E+0	14
.114	462.0	.462	5.93E+04		.114	460.4	.461	5.911+0	4
. 140	454.4	.465	5.83E+04		, 140	455.7	.465	5.848+0	14
. 165	456.3 477.9	.469	5.87E+04 6.29E+04		317	455.3 473.1	.469	5.86E+0 6.19E+0 6.35E+0	ti.
.394	505.1	.505	6.655+04		394	498.1	.504	6.35E+0	4
.470	550.1	.521	1.01E+05		.470	504.0	.518	7.49E+0	14
.546	631.5	.541	6.65E+04 1.01E+05 1.05E+05 1.12E+05 1.08E+05		.546	563.4	.535	9.98E+0	lı .
.622	689.7	. 562	1.12E+05		.622	605.2	. 555	1.10E+0	5
. 698	773.9	.584	1.08E+05		.698	706.9	.576	1.07E+0	5
.775	837.7	.606	1.20E+05		.775	763.2 836.7		1.24E+0	5
.851	889.5 904.0	.626	8.78E+04 7.79E+04 7.61E+04 7.02E+04 6.75E+04		.831	885.4	.640	1.09E+0 8.74E+0	h
1.003	916.8	.657	7 615+04		1.003	900.3		8.02F+0	14
1.079	907.1	.671	7.02E+04		1.079	896.5	670	7.291+0	4
1.143	891.2	.682	6.75E+04	1.77E+03	1.143	891 2	682	7 10F+0	4 7.09E+02
1.181	846.3	.688	5.92E+04	5.20E+03	1.181	839.7 698.1	,689	6.24E+0	4 4.77E+03
1.244	707.5	.698	6.66E+04		1.244	698.1	.699	6.41E+0	4
1.308	761.8	.712	1.02E+05		1.308	121.3		1.01E+0	5
1.384	879.7	.731	5.92E+04 6.66E+04 1.02E+05 9.16E+04 6.99E+04		1.384	843.9		6.24E+0 6.41E+0 1.01E+0 1.04E+0 7.28E+0	5
1.460	911.5 921.8	.74?	6.96E+04		1,460	901.1	.749	7.22E+0	ta
1.562	891.8	.765	7 015+04		1.562	911.8 881.4	.767	7.22E+0	4
1.613	914.6	. 774	7.01E+04 6.93E+04		1.613	905.2	.777	7.11E+0	14
1.689	942.4	.787	6.79E+04		1.689	934.1	. 790	6.99E+0	4
1.765	957.9	.787	6.79E+04 6.64E+04		1.765	951.0	, 804	6 80140	la .
1.816	959.5 924.4		6.22E+04		1.816	952.9	.812	6.43E+0	4
1.867	924.4	.817	6.66E+04		1.867	917.6	.821	6.81E+0	4
1.918	959.5 924.4 921.9 944.7 950.9	.825	6.66E+04 6.40E+04 6.35E+04 6.19E+04	5.201403	1.918	881.4 905.2 934.1 951.0 952.9 917.6 917.1 940.2 947.9	. 829	6.43E+0 6.81E+0 6.58E+0 6.57E+0 6.39E+0	4
1.994	944.7	.837 .850	6 105404		2.070	940.2	.842	6.305+0	ii.
2.070	950.9	.650	0.192+04		2.070	947.9	. 600	0.345+0	*

.856

6.76E+04

6.58E+04

934.8

944.0

1.994

2.070

POINT SERIAL NO. 3161.130 (TIME= 116.50 SEC) POINT SERIAL NO. 3161.110 (TIME= 100.50 SEC) FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

15.96 MPA
616.1 K
1.614E+06 J/KG FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY
TEST SECTION:

16.04 MPA
616.3 K
1.616E+06 J/KG TEST SECTION: PRESSURE . 70 MPA PRESSURE .70 MPA PRESSURE .70 MPA
SAT TEMP 437.92 K
MASS FLUX 48.76 KG/SEC-M**2
INLET QUALITY .444
INLET ENTHALPY 1.614E+06 J/KG PRESSURE .70 MPA
SAT TEMP 437.95 K
MASS FLUX 48.73 KG/SEC-M**2
INLET QUALITY .445
INLET ENTHALPY 1.616E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION ELEVATION .772 M
VELOCITY .0105 M/SEC
QUALITY .590
NET LHP POWER TO FLUID 0.0 W VELOCITY .0095 M/SEC QUALITY .616
NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (K) (M) (M) (K) (M) 1.841 1.841 1.069 637.4 .817 .678 .914 596.8 .824 .710 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS
(M) (K) W/M**2 W/M**2 ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M**2 457.2 .447 5.94E+04 461.8 .453 5.98E+04 455.8 .455 5.92E+04 463.9 .458 5.95E+04 .446 5.95E+04 .452 6.02E+04 .454 5.91E+04 .458 5.97E+04 .013 .013 459.8 .051 .051 465.3 .063 457.6 .063 .458 .089 5.97E+04 . 458 466.6 .089 .462 5.92E+04 . 114 5.94E+04 459.2 457.0 .462 . 114 5.86E+04 5.87E+04 6.14E+04 6.32E+04 6.61E+04 7.86E+04 . 140 . 466 5.87E+04 .470 5.88E+04 .493 6.06E+04 .505 6.24E+04 .517 6.21E+04 .529 6.55E+04 452.2 5.87E+04 . 140 453.1 .465 . 165 453.6 454.6 .469 . 165 .317 .492 469.6 463.9 .317 .504 . 394 . 394 493.2 483.9 .517 483.0 .470 493.8 .470 .546 .531 497.5 519.7 .546 .549 .622 .542 476.2 6.54E+04 .622 541.3 .569 7.98E+04 .698 .556 638.5 1.05E+05 .698 518.3 1. 23E+05 1. 10E+05 1. 05E+05 8. 71E+04 7. 54E+04 7. 40E+04 7. 03E+04 .591 .775 .574 1.13E+05 .596 1.05E+05 .775 553.0 713.6 .613 .851 771.9 627.3 .851 .634 .927 708.6 .616 1.09E+05 .927 843.5 1.003 .653 1,003 .637 882.5 746.1 1.07E+05 .637 1.07E+05 .657 9.87E+04 .668 1.079 885.3 1.079 838.7 .671 1.143 870.9 .680 1.143 840.3 8.19E+04 .679 832.1 .687 1,181 808.3 7.62E+04 1.181 .690 .701 691.3 .698 .698 6.33E+04 .710 9.11E+04 1,244 676.4 1.244 6.44E+04 1.308 648.0 1.308 690.2 1.08E+05 805.9 .730 1.384 710.4 .720 1.16E+05 1.384 . 748 889.5 7.88E+04 7.47E+04 7.41E+04 7.27E+04 7.14E+04 7.01E+04 7.88E+04 1,460 807.7 1.460 .742 1.17E+05 .758 1.26E+05 .771 7.97E+04 .781 7.65E+04 .796 7.48E+04 . 758 1.511 901.3 1.511 846.7 870.9 .767 1.562 841.4 1.562 895.8 .777 1.613 870.2 1.613 925.7 .791 1.689 903.1 1.689 7.34E+04 6.93E+04 1.765 943.7 .804 1.765 923.4 .810 .813 .819 1.816 945.8 6.60E+04 1.816 926.1 6.93E+04 910.6 .822 6.96E+04 1.867 891.1 .828 1.867 7.27E+04 912.0 .830 6.73E+04 1.918 896.8 .838 7.01E+04 7.10E+04 1.918

1.994

2.070

918.6

930.7

.851

.865 6.95E+04

POINT SERIA	AL NO. 3161.140	(TIME= 121.50 SEC)	POINT SERIA	AL NO. 11	71.030 (T	IME= 101.50	SEC)
PRESSI SAT TI MASS I INLET INLET QUENCH FROI ELEVA VELOC QUALI NET LHP POI	URE EMP FLUX QUALITY ENTHALPY NT: TION ITY ER TO FLUID	437.96 K 48.59 KG/SEC .445 1.616E+06 J/KG .975 M .0095 M/SEC .622 0.0 W	-M**2	QUENCH FROM QUENCH FROM VELOC QUALIT NET LHP POV	URE(PE-3) ATURE(TE-F ENTHALPY DN: URE EMP FLUX QUALITY ENTHALPY NT: TION ITY HER TO FLU	CV-1T) 6	16.04 MPA 428.4 K .643E+05 J/K6 .72 MPA 439.34 K 23.69 KG/ 018 .643E+05 J/K6 .315 M .0049 M/S .069 0.0 W	G SEC-M**2 G
VAPOR TEMPI ELEVATION (M)	ERATUR MEASUREM	ENT LOCATION INFORMA	TION	VAPOR TEMPI ELEVATION	ERATURE ME	ASUREMENT L	CATION INFO	
1.841	.867 572.3	.829 .725		1.232	.917	821.5 .3	50 .250	
WALL TEMPER ELEVATION (M)	RATURE MEASUREME TEMP (K)	NT LOCATION INFORMAT XE HEAT FLUX W/M**2	HEAT LOSS	WALL TEMPER ELEVATION (M)	RATURE MEA TEMP (K)	SUREMENT LO	HEAT FLU: W/M**2	MATION X HEAT LOSS W/M**2
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244 1.308 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.918 1.994 2.070	456.5 452.3 453.3 462.6 481.5 480.3 472.3 507.9 513.6 584.3 655.8 746.6 805.1 822.3 797.7 671.1 639.5 673.7 803.7 804.2 860.6 894.7 918.7 884.1 918.7	447 5.95E+04 453 5.98E+04 455 5.92E+04 465 5.92E+04 463 5.94E+04 466 5.88E+04 470 6.05E+04 505 6.23E+04 517 6.22E+04 529 6.46E+04 542 6.37E+04 555 7.15E+04 570 9.13E+04 570 9.13E+05 630 1.04E+05 660 1.04E+05 666 9.23E+04 675 8.49E+04 675 8.49E+04 675 8.49E+04 687 7.32E+04 717 1.21E+05 770 1.19E+05 773 1.20E+05 773 1.20E+05 773 1.20E+04 801 7.64E+04 801 7.64E+04 801 7.64E+04 801 7.36E+04 801 7.36E+04	W/TI2	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244 1.308 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918 1.994 2.070	467.8 482.0 463.1 476.1 466.7 457.5 461.9 668.3 837.4 894.2 983.0 1021.7 1047.7 1083.0 1089.9 1035.5 998.8 921.4 908.8 986.3 1041.6 1028.2 1103.6 1089.3 1049.1 1103.6 1089.7 1020.1 1022.1	.305 .323 .336 .343 .354 .366 .381 .395 .405 .415 .425 .441	4.11E+04 4.49E+04 4.00E+04 4.00E+04 4.09E+04 4.09E+04 5.36E+04 6.80E+04 6.80E+04 6.80E+04 6.31E+04 6.31E+04 5.34E+04 3.72E+04 3.72E+04 3.72E+04 3.72E+04 3.63E+04 3.80E+04 3.80E+04 3.80E+04 3.80E+04 3.80E+04 3.80E+04 3.80E+04 3.81E+04	

POINT SERIAL NO. 1171.040		INCL. FOS	11-CHE EXE	ERIPERT NO. 11			THEE TOO	re com Lone	ennen no		
PAPER TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INF	POINT SERIA	AL NO. 11	171.040	(TIME= 118.50 S	EC)	POINT SERIA	L NO. 11	71.050	(IME = 129	.50 SEC	:)
PAPER TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INF	LOOP PRESSU	URE(PE-3)		16.03 MPA		LOOP PRESSU	RE(PE-3)		16.06	MPA	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	FCV TEMPERA	ATURELTE-F	CV-1T)	428.3 K		FCV TEMPERA	TURE (TE-F	CV-11)	428.2	K	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	LHP INLET E	ENTHALPY		6.638E+05 J/KG		LHP INLET E	NTHALPY		6.635E+05	J/KG	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	TEST SECTIO	ON:				TEST SECTIO	N:				
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	PRESSI	URE		.72 MPA		PRESSU	IRE		.72	MPA	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	SAT TE	EMP		439 31 K		SAT TE	MP		439.38	K	
PAPER TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INF	MASS I	FLUX		23 72 KG/S	EC-M**2	MASS F	LUX		23.85	KG/SEC	-M**2
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	INLET	QUALITY		019		INLET	QUALITY		019		
PAPER TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INF	INLET	ENTHAL PY		6.638E+05 J/KO		INLET	ENTHALPY		6.635E+05	J/KG	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	QUENCH FROM	NT:				QUENCH FROM	IT:				
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	ELEVAT	TION		.393 M		ELEVAT	ION		. 439	M	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	VELOCI	ITY		.0042 M/SE	C	VELOCI	TY		.0039	M/SEC	
PAPER TEMPERATURE MEASUREMENT COCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INFORMATI	QUALIT	IY		.083		QUALIT	Y		.093		
PAPER TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .839 810.9 .335 .242 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION INF	NET LHP POY	WER TO FLE	110	0.0 W		NET LHP POW	ER TO FLU	HD	0.0	W	
1.232 .839 810.9 .335 .242 1.232 .793 792.1 .327 .239 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION FLOWER TOWN THE PROPERTY OF THE PRO	VAPOR TEMPI	FRATURE ME	ASUREMENT	LOCATION INFOR	MATION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMA	TION
1.232 .839 810.9 .335 .242 1.232 .793 792.1 .327 .239 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION FLOWER TOWN THE PROPERTY OF THE PRO	FLEVATION	DZQF	TV	XE XA		ELEVATION	DZQF	TV	XE XA		
1.232 .839 810.9 .335 .242 1.232 .793 792.1 .327 .239 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION FLOWER TOWN THE PROPERTY OF THE PRO	(M)	(M)	(K)			(M)	(M)	(K)			
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION				315 202							
MALL ITMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE	1.636	.039	010.9	.333 .646		11636					
Color	WALL TEMPER	RATURE MEA	ASUREMENT	LOCATION INFORM	MATION	WALL TEMPER	TATURE MEA	SUREMENT	LOCATION I	NFORMAT	ION
(M) (K) W/M=2 W/M=2 (M) (K) W/M=2 W/M=2 013	ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
.013	(M)	(K)		M/M**2	M/W=#5	(M)	(K)		W/M	2	M/Wuu5
051	013	461.2	- 016	3.94E+04		.013	458.5	016	3.89	E+04	
063	051	470.1	008	4 08E+04		.051	465.9	009	3.95	E+04	
.089	.063	458.8	006	3.87E+04		.063	457.0	006	3.82	E+04	
114	.089	469.3	000	3.94E+04		.089	466.7	001	3.88	E+04	
140	. 114	461.0	.005	3.91E+04		. 174	458.8	.004	3.85	E+04	
1.165	. 140	454.2	.010	3.80E+04		. 140	453.2	.009	3.78	E+04	
317	. 165	455.8	.015	3.87E+04		. 165	454.0	.014	3.82	E+04	
394 698.0 083 8.69E+04 394 596.3 073 8.18E+04 470 839.3 116 8.05E+04 4.70 752.6 107 9.06E+04 546 897.0 145 6.31E+04 546 869.0 138 6.29E+04 622 932.3 170 6.31E+04 622 904.0 162 6.04E+04 698 977.9 195 6.20E+04 698 950.9 186 5.97E+04 775 1006.8 219 6.08E+04 775 981.0 209 5.94E+04 851 1034.7 243 5.94E+04 .851 1010.4 233 5.83E+04 927 1054.1 266 5.57E+04 .927 1033.5 255 5.63E+04 1.079 1027.3 306 4.2E+04 1.003 1050.2 277 5.31E+04 1.143 996.4 320 4.09E+04 4.39E+02 1.143 991.4 311 4.31E+04 3.98E+02 1.181 922.9 328 3.41E+04 4.16E+03 1.181 921.2 319 3.63E+04 1.308 985.1 353 4.04E+04 1.308 982.3 3.31 3.96E+04 1.384 1038.8 369 4.11E+04 1.384 1035.2 361 4.16E+04 1.460 1029.5 385 3.89E+04 1.460 1028.4 3.77 3.94E+04 1.511 1048.6 395 3.95E+04 1.562 1053.0 398 4.01E+04 1.689 1101.2 432 3.92E+04 1.689 1100.0 424 3.94E+04 1.867 1053.7 446 3.99E+04 1.686 1.094.7 449 3.47E+04 1.867 1053.7 466 3.65E+04 1.866 1094.7 449 3.47E+04 1.994 1034.3 488 3.16E+04 1.994 1041.3 481 3.2E+05 2.070 987.5 577 1.11E+05 2.070 975.7 574 1.32E+05 2.070 287.5 277 277 277 277 277 277 277 277 277 277 277 277 277 277 277	. 317	523.1	.054	5.93E+04		. 317	484.1	.048	4.58	E+04	
470	. 394	698.0	.083	8.69E+04		. 394	596.3	.073	8.18	E+04	
.546 897.0 .145 6.31E+04 .546 869.0 .138 6.29E+04 6.622 932.3 .170 6.31E+04 6.622 904.0 .162 6.04E+04 6.698 977.9 .195 6.20E+04 6.698 950.9 .186 5.97E+04 6.868 977.9 .195 6.20E+04 775 981.0 .209 5.94E+04 775 1006.8 .219 6.08E+04 851 1010.4 .233 5.94E+04 851 1010.4 .233 5.94E+04 851 1010.4 .233 5.94E+04 851 1010.4 .233 5.94E+04 9.27 1033.5 .255 5.63E+04 9.27 1033.5 .255 5.63E+04 9.27 1033.5 .255 5.63E+04 9.27 1033.5 9.277 5.31E+04 9.27 1033.5 9.277 5.31E+04 9.27 1033.5 9.277 5.31E+04 9.27 1.143 996.4 3.20 4.09E+04 4.39E+02 1.143 991.4 311 4.31E+04 3.98E+02 1.181 922.9 328 3.41E+04 4.16E+03 1.181 921.2 319 3.63E+04 3.20E+03 1.244 909.2 340 3.81E+04 4.16E+03 1.181 921.2 319 3.63E+04 3.20E+03 1.244 906.2 331 3.96E+04 1.308 985.1 353 4.04E+04 1.388 982.3 344 4.10E+04 1.388 982.3 344 4.10E+04 1.388 982.3 344 4.10E+04 1.368 982.3 344 4.10E+04 1.368 982.3 3.34 4.10E+04 1.460 1029.5 385 3.89E+04 1.460 1029.5 385 3.89E+04 1.460 1028.4 377 3.94E+04 1.562 1056.0 406 4.06E+04 1.56E+04 1.562 1056.0 406 4.06E+04 1.56E+04 1.562 1056.0 406 4.06E+04 1.562 1056.0 406 4.06E+04 1.562 1056.0 406 4.06E+04 1.562 1053.0 398 4.33E+04 1.562 1056.0 406 4.06E+04 1.562 1053.0 398 4.33E+04 1.562 1053.0 398 100.0 3.22E+04 1.562 1053.0 398 3.32E+05 100.0 398 3.32E+05 100.0 398 3	. 470	839.3	. 116	8.05E+04		.470	752.6	. 107	9.06	E+04	
.622 932.3 170 6.31E+04 6.22 904.0 162 6.04E+04 6.98 977.9 195 6.20E+04 6.98 950.9 186 5.97E+04 775 1006.8 .219 6.08E+04 .775 981.0 .209 5.94E+04 .851 1034.7 .243 5.94E+04 .851 1010.4 .233 5.83E+04 .927 1054.1 .266 5.57E+04 .927 1033.5 .255 5.63E+04 .927 1033.5 .257 1033.5 .257 1033.5 .257 1033.5 .257 1033.5 .257 1033.5 .257 103	.546	897.0	. 145	6.31E+04		.546	869.0	. 138	6.29	E+04	
.698 977.9 .195 6.20£+04 .698 950.9 .186 5.97£+04 .775 1006.8 .219 6.08£+04 .775 981.0 .209 5.94£+04 .851 1034.7 .243 5.94£+04 .851 1010.4 .233 5.83£+04 .927 1054.1 .266 5.57£+04 .927 1033.5 .255 5.63£+04 .1079 1067.1 .287 5.21£+04 1.003 1067.1 .287 5.21£+04 1.003 1050.2 .277 5.31£+04 .1079 1019.2 .296 4.56£+04 .1079 1019.2 .296 4.56£+04 .1143 996.4 .320 4.09£+04 4.39£+02 1.143 991.4 .311 4.31£+04 3.98£+02 1.143 991.4 .311 4.31£+04 3.30£+03 1.244 909.2 .340 3.81£+04 4.16Ē+03 1.181 921.2 .319 3.63£+04 3.30DZ04 1.308 985.1 .353 4.04Ē+04 1.308 985.3 .344 4.10DZ04 1.308 985.1 3.308 985.1 .353 4.04Ē+04 1.384 1035.2 .361 4.16DZ04 1.384 1038.8 .369 4.11DZ04 1.3884 1035.2 .361 4.16DZ04 1.562 1056.0 .406 4.06DZ04 1.562 1056.0 .406 4.06DZ04 1.562 1056.0 .406 4.06DZ04 1.562 1056.0 .398 4.13DZ04 1.613 1080.7 .416 3.99DZ04 1.613 1078.6 .409 4.03DZ04 1.616 1093.4 .457 3.43DZ04 1.689 1101.2 .432 3.92DZ04 1.689 1100.0 .424 3.94DZ04 1.689 1101.2 .432 3.92DZ04 1.680 1100.0 .424 3.94DZ04 1.689 1101.2 .432 3.92DZ04 1.680 1100.0 .424 3.94DZ04 1.689 1101.2 .432 3.92DZ04 1.680 1100.0 .424 3.94DZ04 1.680 110	.622	932.3	, 170	6.31E+04		.622	904.0	. 162	6.04	E+04	
. 775	.698	977.9	, 195	6.20E+04		.698	950.9	. 186	5.97	+()4	
.851 1034, 7 .243 5, 94 e+04 .851 1010, 4 .233 5, 83 e+04 .927 1054, 1 .266 5, 57 e+04 1.003 1067, 1 .287 5, 21 e+04 1.003 1050, 2 .277 5, 31 e+04 1.079 1012, 3 .306 4, 42 e+04 4.39 e+02 1.143 991, 4 .311 4.31 e+04 3.98 i+02 1.181 922, 9 .328 3, 41 e+04 4.16 e+03 1.181 921, 2 .319 3.63 e+04 3.20 4, 04 e+04 4.16 e+03 1.181 921, 2 .319 3.63 e+04 3.20 e+03 e+03 e+03 e+03 e+03 e+03 e+03 e+0	. 775	1006.8	.219	6.08E+04		.775	981.0	,209	5.94	E+04	
1093	.851	1034.7	. 243	5.94E+04		.851	1010.4	. 233	5.83	E+04	
1.003	.927	1054.1	.266	5.57E+04		.927	1033.5	. 255	5.63	E+04	
1.079 1027.3	1.003	1067.1	.287	5.211+04		1.003	1050.2	.211	5.31	E+04	
1.143 996.4 .320 4.09E+04 4.39E+02 1.143 991.4 .311 4.31E+04 3.98E+02 1.181 921.2 .319 3.63E+04 3.30E+03 1.244 909.2 .340 3.81E+04 1.244 906.2 .331 3.96E+04 1.308 985.1 .353 4.04E+04 1.308 982.3 .344 4.10E+04 1.308 982.3 .344 4.10E+04 1.308 982.3 .344 4.10E+04 1.308 1035.2 .361 4.16E+04 1.460 1029.5 .385 3.89E+04 1.460 1028.4 .377 3.94E+04 1.511 1046.6 .395 3.95E+04 1.511 1046.8 .387 4.01E+04 1.562 1056.0 4.06 4.06E+04 1.562 1053.0 .398 4.13E+04 1.613 1080.7 416 3.99E+04 1.613 1078.6 4.09 4.03E+04 1.668 1101.2 432 3.92E+04 1.668 1101.0 424 3.94E+04 1.765 1105.7 447 3.75E+04 1.765 1106.3 440 3.78E+04 1.816 1093.4 457 3.43E+04 1.816 1094.7 449 3.47E+04 1.867 1053.7 466 3.65E+04 1.867 1055.3 459 3.71E+04 1.918 1039.2 475 3.34E+04 1.918 1039.2 475 3.34E+04 1.918 1039.2 475 3.34E+04 1.994 1034.3 488 3.16E+04 1.994 1041.3 481 3.27E+04 2.070 987.5 517 1.11E+05 2.070 975.7 514 1.32E+05	1.079	1027.3	. 306	4.42E+04		1.079	1019.2	,296	4.56	E+04	
1.181 922.9 .328 3.41E+04 4.16E+03 1.181 921.2 .319 3.63E+04 3.33E+03 1.244 909.2 .340 3.81E+04 1.308 985.1 .353 4.04E+04 1.308 985.1 .354 4.10E+04 1.308 985.1 .354 4.10E+04 1.308 985.1 .369 4.11E+04 1.308 985.1 .361 4.16E+04 1.308 985.1 .308 985.1 .361 4.16E+04 1.308 985.1 .361 4.16E+04 1.308 985.1 .36	1.143	996.4	. 320	4.09E+04	4.39E+02	1.143	991.4	. 311	4.31	E+04	
1.244 909.2 .340 3.81E+04 1.244 906.2 .331 3.96E+04 1.308 982.3 .344 4.10E+04 1.384 1038.8 .369 4.11E+04 1.384 1035.2 .361 4.16E+04 1.460 1029.5 .385 3.89E+04 1.460 1028.4 .377 3.94E+04 1.511 1048.6 .395 3.95E+04 1.511 1046.8 .387 4.01E+04 1.562 1056.0 .406 4.06E+04 1.562 1053.0 .398 4.13E+04 1.613 1080.7 .416 3.99E+04 1.613 1078.6 .409 4.03E+04 1.689 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.816 1093.2 .475 3.34E+04 1.816 1094.7 .499 3.47E+04 1.918 1039.2 .475 3.34E+04 1.918 1039.2 .475 3.34E+04 1.918 1039.2 .475 3.34E+04 1.918 1039.2 .475 3.34E+04 1.994 1041.3 .481 3.27E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.181	922.9	. 328	3.41E+04	4.16E+03	1.181	921.2	. 319	3.63	E+04	3.30E+03
1.308 985.1 .353 4.04E+04 1.308 982.3 .344 4.10E+04 1.384 1038.8 .369 4.11E+04 1.384 1035.2 .361 4.16E+04 1.460 1029.5 .385 3.89E+04 1.460 1028.4 .377 3.94E+04 1.511 1048.6 .395 3.95E+04 1.511 1046.8 .387 4.01E+04 1.562 1056.0 .406 4.06E+04 1.562 1053.0 .398 4.13E+04 1.613 1080.7 .416 3.99E+04 1.613 1078.6 .409 4.03E+04 1.689 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.244	909.2	, 340	3.81E+04		1.244	906.2	. 331	3.96	E+04	
1.384 1038.8 369 4.11E+04 1.384 1035.2 361 4.16E+04 1.460 1028.4 377 3.94E+04 1.511 1048.6 395 3.95E+04 1.511 1046.8 387 4.01E+04 1.562 1056.0 406 4.06E+04 1.562 1053.0 398 4.13E+04 1.613 1080.7 416 3.99E+04 1.613 1078.6 409 4.03E+04 1.689 1101.2 432 3.92E+04 1.689 1100.0 424 3.94E+04 1.765 1105.7 447 3.75E+04 1.765 1106.3 440 3.78E+04 1.816 1093.4 457 3.43E+04 1.816 1094.7 449 3.47E+04 1.867 1053.7 466 3.65E+04 1.867 1055.3 459 3.71E+04 1.918 1039.2 475 3.34E+04 1.918 1039.2 475 3.34E+04 1.918 1039.2 475 3.34E+04 1.994 1034.3 488 3.16E+04 1.994 1034.3 488 3.16E+04 1.994 1034.3 481 3.27E+04 2.070 987.5 517 1.11E+05 2.070 975.7 514 1.32E+05	1.308	985.1	. 353	4.04E+04		1.308	982.3	. 344	4.10	E+04	
1.460 1029.5 385 3.89E+04 1.460 1028.4 377 3.94E+04 1.511 1046.8 387 4.01E+04 1.562 1056.0 .406 4.06E+04 1.562 1053.0 .398 4.13E+04 1.613 1080.7 .416 3.99E+04 1.613 1078.6 .409 4.03E+04 1.689 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 4.40 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1039.2 .475 3.34E+04 1.918 1034.3 .488 3.16E+04 1.994 1034.3 .481 3.27E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.384	1038.8	. 369	4.11E+04		1.384	1035.2	. 301	4.10	E+04	
1.511 1048.6 3.95 3.95E+04 1.511 1046.8 .387 4.01E+04 1.562 1056.0 .406 4.06E+04 1.562 1053.0 .398 4.13E+04 1.613 1080.7 .416 3.99E+04 1.613 1078.6 .409 4.03E+04 1.689 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .499 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.460	1029.5	. 385	3.89E+04		1.460	1028.4	. 3//	3.94	E+04	
1.562 1056.0 .406 4.06E+04 1.562 1053.0 .398 4.13E+04 1.613 1080.7 .416 3.99E+04 1.613 1078.6 .409 4.03E+04 1.689 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.511	1048.6	. 395	3.95E+04		1.511	1046.8	. 387	4.01	E+04	
1.013 1080.7 .416 3.991+04 1.613 1078.6 .409 4.03£+04 1.689 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.562	1056.0	.406	4.06E+04		1.562	1053.0	. 398	4.13	E+04	
1.089 1101.2 .432 3.92E+04 1.689 1100.0 .424 3.94E+04 1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.613	1080.7	.416	3.991+04		1.613	1078.6	.409	4.03	E+04	
1.765 1105.7 .447 3.75E+04 1.765 1106.3 .440 3.78E+04 1.816 1093.4 .457 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.089	1101.2	.432	3.92E+04		1,689	1100.0	.424	3.94	E+04	
1.816 1093.4 .427 3.43E+04 1.816 1094.7 .449 3.47E+04 1.867 1053.7 .466 3.65E+04 1.867 1055.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.765	1105.7	.447	3.75E+04		1.765	1106.3	.440	3.78	E+04	
1.867 1053.7 .466 3.85E+04 1.816 1052.3 .459 3.71E+04 1.918 1039.2 .475 3.34E+04 1.918 1044.2 .468 3.43E+04 1.994 1034.3 .481 3.27E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.816	1093.4	.457	3.43E+04		1.816	1094.7	.449	3.47	E+04	
1.994 1034.3 .488 3.16E+04 1.994 1041.3 .481 3.27E+04 2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.667	1053.7	.466	3.051+04		1.867	1055.3	.459	3./1	E+04	
2.070 987.5 .517 1.11E+05 2.070 975.7 .514 1.32E+05	1.918	1039.2	.475	3.342+04		1.918	1044.2	. 408	3.43	E+04	
2.070 907.2 .217 1.116702 2.070 972.7 .214 1.326705	2.070	097.5	.488	3.161+04		2 070	075 7	.481	3.27	E+05	
	2.070	901.3	.511	1.116+05		2.070	915.1	. 214	1.32	2.109	

POINT SERIAL NO. 1171.061 (TIME= 157.50 SEC) POINT SERIAL NO. 3171.050 (TIME= 129.50 SEC) (NEERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.04 MPA 16.06 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 428.0 K FCV TEMPERATURE (TE-FCV-1T) 428.2 K LHP INLET ENTHALPY 6.628E+05 J/KG 6.635E+05 J/KG THP INLET ENTHALPY TEST SECTION: TEST SECTION: .72 MPA PRESSURE .72 MPA PRESSURE SAT TEMP 439.39 K SAT TEMP 439.38 K 23.85 KG/SEC-M**2 -.019 MASS FLUX 23.63 KG/SEC-M**2 MASS FLUX INLET QUALITY -.019 INLET QUALITY INLET ENTHALPY 6.628E+05 J/KG INLET ENTHALPY 6.635E+05 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .544 M .439 M ELEVATION .0039 M/SEC VELOCITY .0036 M/SEC VELOCITY . 111 QUALITY .093 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA DZQF TV (M) (M) (K) ELEVATION XA (M) (K) (M) 1.841 1,403 875.1 .449 .308 1.232 .688 740.0 .302 .230 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION XE M/M##2 W/M##2 ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) (K) W/M##2 W/M##2 (M) .013 458.5 -.016 3.89E+04 .051 465.9 -.009 3.95E+04 .013 454.2 -.017 3.80E+04 .063 -.006 3.82E+04 .051 460.2 -.009 3.83E+04 457.0 454.8 -.007 3.78E+04 .089 466.7 -.001 3.88E+04 .063 .089 462.7 -.002 3.82E+04 .114 458.8 .004 3.85E+04 .114 .003 453.2 .009 3.78E+04 455.4 3.79E+04 . 140 .140 454.0 .014 3.82E+04 451.9 .008 3.75E+04 .165 .048 4.58E+04 . 165 451.9 .013 3.76E+04 .317 484.1 .394 8.18E+04 .317 467.6 .044 3.99E+04 596.3 .073 . 394 .061 .107 9.06E+04 497.4 4.30E+04 .470 752.6 .138 .083 . 546 869.0 6.29E+04 .470 529.4 6.72E+04 .622 904.0 . 162 6.04E+04 .546 702.7 . 111 7.72E+04 .698 950.9 . 186 5.97E+04 .622 840.1 . 140 6.59E+04 5.94E+04 .775 981.0 .209 .698 892.4 . 164 5.48E+04 .775 . 186 5.83E+04 .851 1010.4 .233 925.5 5.41E+04 .207 .851 .927 1033.5 .255 5.63E+04 957.4 5.34E+04 1.003 1050.2 .277 5.31E+04 .927 983.0 .228 5.33E+04 1.079 1019.2 .296 4.56E+04 1.003 1006.6 .249 5.22E+04 .311 4.31E+04 3.98E+02 1.079 992.3 .269 4.86E+04 1.143 991.4 .319 1.143 1.181 921.2 3.63E+04 3.30E+03 969.1 .285 4.56E+04 1.47E+03 .294 1.244 906.2 . 331 3.96E+04 1.181 911.4 3.96E+04 2.82E+03 . 344 1.308 982.3 4.10E+04 1.244 887.3 .308 4.44E+04 4.30E+04 1.384 1035.2 . 361 4.16E+04 1.308 971.4 . 322 4.32E+04 .377 3.94E+04 1023.2 .339 1,460 1028.4 1.384 .356 1021.7 4.15E+04 1.511 1046.8 . 387 4.01E+04 1.460 .367 1.562 1053.0 . 398 4.13E+04 1.511 1038.6 4.16E+04 .409 4.03E+04 1043.1 .378 4.19E+04 1.613 1078.6 1.562 .389 1.689 1100.0 .424 3.94E+04 1070.9 4.16E+04 1.613 .440 3.78E+04 .406 4.12E+04 1.765 1106.3 1.689 1093.6 1094.7 .449 3.47E+04 1.765 1104.0 .422 3.99E+04 1.816 1,867 1055.3 .459 3.71E+04 1.816 1094.1 .432 3.71E+04 1044.2 .468 3.43E+04 1055.4 .442 3.91E+04 1.918 1.867 3.69E+04 1041.3 .481 3.27E+04 1051.5 1.994 1.918 .453 .473 1.32E+05 2.070 975.7 .514 1.994 1045.0 6.77E+04

2.070

578.1

.502

7.71E+04

3.85E+04 1.44E+05

.514 4.88E+04

. 439

.476

1,918

1.994

2.070

1051.5

1045.0

578.1

.453

.473

.502

3.69E+04

7.71E+04

6.77E+04

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POINT SERIAL NO. 3171.060 (TIME= 157.50 SEC)
                                                                                            POINT SERIAL NO. 3171.070 (TIME= 179.50 SEC)
                                                                                            LUOP PRESSURE(PE-3)

FCV TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY

TEST SECTION:

16.00 MPA

428.0 K

6.626E+05 J/KG
LOOP PRESSURE(PE-3)
                                       16.04 MPA
428.0 K
FCV TEMPERATURE(TE-FCV-1T) 428.0 K
LHP INLET ENTHALPY 6.628E+05 J/KG
TEST SECTION:
                                        .72 MPA
                                                                                                                                       .72 MPA
                                                                                            PRESSURE .72 MPA
SAT TEMP 439.35 K
MASS FLUX 23.64 KG/SEC-M**2
INLET QUALITY -.019
INLET ENTHALPY 6.626E+05 J/KG
     ##ESSURE .72 MPA

SAT TEMP 439.39 K

MASS FLUX 23.63 KG/SEC-M**2

INLET ENTHALPY 6.628E+05 J/KG

CH FRONT. 6.628E+05 J/KG
                                                                                                 PRESSURE
      PRESSURE
QUENCH FRONT:
                                                                                            QUENCH FRONT:
                  .544 M
.0036 M/SEC
                                                                                                 ELEVATION
      ELEVATION
                                                                                                                                          .619 M
                                                                                                 VELOCITY
                                                                                                                                    .0032 M/SEC
      VELOCITY
                                                                                                 QUALITY
QUALITY .111
NET LIP POWER TO FLUID 0.0 W
                                                                                            NET LHP POWER TO FLUID 0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                            VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV XE XA
                                                                                            ELEVATION DZQF TV XE XA
  (M)
                (M)
                            (K)
                                                                                               (M)
                                                                                                              (M)
                                                                                                                         (K)
                                                                                                           1.222 853.2 .418 .292
 1.841
               1.297 853.2 .432 .301
                                                                                             1.841
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                            WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                                                                            ELEVATION TEMP XE HEAT FLUX HEAT LOSS
                                             W/M##2
                                                               W/M##2
                                                                                            (M)
                                                                                                             (K)
                                                                                                                                          W/M**2
  (M)
                 (K)
                                                                                                                                                              W/M##2
                           -.017 3.80E+04

-.009 3.83E+04

-.007 3.78E+04

-.002 3.82E+04

.003 3.75E+04

.013 3.76E+04

.013 3.76E+04
                                                                                            .013
                                                                                                              452.8 -.017 3.76E+04
457.9 -.009 3.80E+04
453.4 -.007 3.78E+04
  .013
                 454.2
  .051
                 460.2
                                                                                              .051
                                                                                              .063
                  454.8
  .063
                                                                                              .089
                                                                                                             460.6 -.002 3.80E+04

453.7 .003 3.78E+04

451.2 .008 3.75E+04

451.2 .013 3.75E+04

462.1 .044 3.87E+04

484.8 .060 4.09E+04

489.1 .076 4.31E+04

528.0 .097 5.92E+04

694.9 .123 7.47E+04

853.3 .151 6.21E+04

888.8 .174 5.37E+04

925.6 .195 5.03E+04

951.2 .215 4.99E+04

977.4 234 4.95E+04
                                                                                                                                    3.80E+04
   -089
                  462.7
                                                                                                              460.6
                                                                                                                           -.002
  .114
                 455.4
                                                                                              .114
                             3.75E+04
.044
3.99E+04
.061
4.30E+04
.083
6.72E+04
.111
7.72E+04
.140
6.59E+04
.164
5.48E+04
.186
5.41E+04
.207
5.34E+04
.228
5.33E+04
.249
5.22E+04
.49
.406E+04
.85
.406E+04
.86
.406E+04
.86
.406E+04
.806E+04
                                                                                              . 140
  . 140
                  451.9
  . 165
                                                                                              . 165
                  451.9
                                                                                              .317
                 467.6
   .317
                                                                                              . 394
  . 394
                  497.4
                                                                                              .470
   .470
                  529.4
                                                                                              .546
  .546
                  702.7
                  840.1
                                                                                              .622
   .622
                                                                                              .698
   .698
                  892.4
  .775
                  925.5
                                                                                              .775
                                                                                              .851
  .851
                  957.4
   .927
                 983.0
                                                                                               .927
                                                                                             1.003
                                                                                                                           .234 4.95E+04
.254 4.71E+04
                                                                                                              977.4
                 1006.6
 1,003
                                                                                                              969.5
 1.079
                  992.3
                                                                                             1.079
                                                          1.47E+03
2.82E+03
                                                                                                                           .269 4.45E+04
.277 3.93E+04
.291 4.45E+04
 1.143
                  969.1
                                                                                            1.143
                                                                                                               947.8
                                                                                                                                                            1.87E+03
                                                                                            1.181
 1.181
                  911.4
                                                                                                              900.0
                                                                                                                                                            3.42E+03
                                                                                             1.244
                  887.3
 1.244
                                                                                                              866.4
 1.308
                  971.4
                                                                                              1.308
                                                                                                              958.8
                                                                                                                                          4.43E+04
                                                                                                                             .306
                                                                                                                             .323
 1.384
                 1023.2
                                . 339
                                                                                              1.384
                                                                                                              1010.4
                                                                                                                                           4.44E+04
                               . 356
                                        4.15E+04
4.16E+04
                                                                                                                                          4.25E+04
 1.460
                 1021.7
                                                                                             1.460
                                                                                                              1012.8
                                                                                                                             . 341
                               . 367
                 1038.6
                                                                                             1.511
                                                                                                              1029.2
 1.511
                                                                                                                             . 352
                                                                                                                                          4.25E+04
                               .378
                                            4.19E+04
 1.562
                 1043.1
                                                                                             1.562
                                                                                                              1033.7
                                                                                                                                          4.25E+04
                                                                                                                             . 363
                                         4.19E+04
                               .389
                                                                                                                             .375
 1.613
                 1070.9
                                                                                             1.613
                                                                                                              1061.2
                                                                                                                                          4.23E+04
                                         4.12E+04
3.99E+04
3.71E+04
                 1093.6
                                .406
                                                                                                              1085.1
                                                                                                                             .391
 1.689
                                                                                             1.689
                                                                                                                                         4.20E+04
                                .422
                                                                                                                             .408
 1.765
                 1104.0
                                                                                             1.765
                                                                                                              1098.1
                                                                                                                                         4.08E+04
                                                                                                                                    3.80E+04
4.01E+04
                 1094.1
 1.816
                               .432
                                                                                             1.816
                                                                                                              1089.4
                                                                                                                             .418
                               .442
 1.867
                 1055.4
                                          3.91E+04
                                                                                             1.867
                                                                                                              1052.0
                                                                                                                             .429
```

1.918

1.994

2.070

1052.4

843.3

524.7

DOLLAT SER	AL NO. 313	1 080 /	TIME= 204.50 SEG		POINT SERI	AL NO 11	7h 626	/TIME-	71 50 557	
										.,
LOOP PRESS	SURE(PE-3)		16.02 MPA		LOOP PRESS FCV TEMPER LHP INLET	SURE (PE-3)		16.	04 MPA	
FCV TEMPER	RATURE (TE-FE	(V-11)	428.0 K		FCV TEMPER	ATURE (TE-1	CV-11)	429	.7 K	
LHP INLEI	ENTHALPY		0.025E+05 J/KG		LHP INLE!	ENTHALPY		0.699E1	05 J/KG	
TEST SECT	ON:		72 MO4		TEST SECTI	ON:			70 4104	
PRES	SURE		12 MFA		PRESS	STAD		420	72 MPA	
SAI	ELUV		439.33 N	-M##2	SALI	EMP		439.	41 K	· www.
INI E	CHALLTY		= 019	2-M2	INIET	OUALITY		35.	DO KO/SEL	,-M5
INLE	ENTHAL PV		6 625E+05 1/KG	C-M**2	INLET	ENTHALPY ON: SURE FEMP FLUX QUALITY ENTHALPY ONT:		6 60054	05 1/40	
QUENCH FRO	NT-		0.0E)E-07 3/NO		OUENCH FRO	NT.		0.0992	03 37 60	
FLEVA	TION		695 M		FLEVA	TION		2	62 M	
VELOC	YIII		.0029 M/SEC		VELOC	TITY		.00	63 M/SEC	
QUAL	IY		. 136		QUALI	TY		.0	38	
NET LHP PO	WER TO FLUI	D	.695 M .0029 M/SEC .136 0.0 W		NET LH" PO	WER TO FLU	IID	0	.0 W	
VAPOR TEMP	PERATURE MEA	SUREMENT	LOCATION INFORMA	ATION	VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATIO	N INFORMA	TION
			XE XA			DZQF	TV	XE X	A	
(M)	(M)	(K)			(M)	(M)	(K)			
1.841	1.146				1.232	.970	752.9	.241 .1	82	
	RATURE MEAS	UREMENT L	OCATION INFORMAT	HEAT LOSS	WALL TEMPE	RATURE MEA	SUREMENT	LOCATION	INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HE	AT FLUX	HEAT LOSS
(M)	(K)		M/W**5	M/W**5	(M)	(K)		W	/M**2	W/M**2
.013	452.3 456.1 458.8 452.4 450.7 458.5 475.5 476.9 488.6 701.7 845.6 891.5	017	3.76E+04 3.79E+04 3.77E+04 3.80E+04		.013	473.0	014	4.	32E+04	
.051	456.1	009	3.79E+04		.051	492.0	008	4.	93E+04	
.063	452.1	007	3.77E+04		.063	465.5	006	4.	11E+04	
.089	458.8	002	3.80E+04		.089	492.0 465.5 479.3 469.1 460.0 468.4 760.7 825.1 853.5 875.0 903.2 940.7 977.3	002	4.	40E+04	
. 114	452.4	.003	3.77E+04		. 114	469.1	.002	4.	28L+04	
. 140	450.6	.008	3.76E+04		- 140	460.0	.005	4.	31E+04	
. 165	450.7	.013	3.76E+04		. 105	468.4	.010	6.	40E+04	
.317	428.2	.044	3.841.404		.317	760.7	.055	1.	05E+05	
.470	676.0	.003 .008 .013 .044 .059	3.76E+04 3.84E+04 3.99E+04 4.00E+04 4.30E+04 5.28E+04 7.75E+04 5.74E+04 5.06E+04		. 394 h70	062.1	.011	4. 6. 6. 6. 6. 5. 5. 4. 4.	54E+04	
.546	470.9	.092	4.00E+04		546	875 0	.092	6.	DIE TUG	
.622	488 6	.111	5 28F+04		622	903.2	120	6	205+04	
.698	701.7	.137	7.755+04		698	940.7	145	6.	3E+04	
.775	845.6	. 164	5.748+04		.775	977.3	161	6.	03F+04	
.851	891.5	. 186	5.06E+04		0.00	1006.6	. 177	5.	98E+04	
.927	919.6	.206	4.92E+04		.927	1025.6	. 192	5.	50E+04	
1.003	949.2	.225	4.92E+04 4.73E+04		1.003	1038.0	.207	5.	50E+04	
1.079	949.3	. 244	4.42E+04		1.079	998.2	.221	4.	30E+04	8.99E-01
1.143	927.9	.258	4.33E+04	1.02E+03 3.45E+03	1.143	966.1	.231	4.	28E+04	3.33E+02
1.181	887.3	.266	3.861+04	3.45E+03	1.181	1005.5 1025.6 1038.0 998.2 965.1 905.6 870.1 945.0 993.8 984.1	.236	3.	57E+04	2.55E+03
1.244	845.7 943.8	.280	4.38E+04 4.35E+04		1.244	870.1	. 244	3.	75E+04	
1.308	994.1	.295	4.35E+04		1.308	945.0	.253	4.)1E+04	
1.460	1002.1	.329	4.40E+04 4.21E+04 4.21E+04		1.384	993.8	.263	4. 3. 4.	13E+04	
1.511	1018.4	. 341	4.21E+04		1.511	904.1	.281	3.	115+04	
1.562	1023.0	.352	4.18E+04		1.562	1003.9	.289		11E+04 54E+04	
1.613	1051.9	. 363	4.12E+04		1.613	1033.1			AF A CALL	
1.689	1077.6	.379	4.06E+04		1.689	1058.5	. 308	4.	1E+04	
1.765	1092.7	.396			1.765	1060.2	. 320	4	26F+04	
1.816	1085.2	.406	4.09E+04 3.78E+04		1.816	1060.2 1045.3 1008.7 995.7 989.8	. 327	3	39E+04	
1.867	1048.9	416	3 95F+04		1.867	1008.7	. 334	3. 4. 3. 3.	18E+04	
1.918	1002.7	.437	1.14E+05 7.08E+04		1.918	995.7	. 341	3.	7E+04	
						1 May 100 Tab - 12	200	100	0.02 t. (200) (0.01) 75-	
1.994	551.0 499.5	.474	7.08E+04 4.29E+04		1.994	989.8 991.1	. 350	3.	34E+04	

```
POINT SERIAL NO. 3174.030 (TIPL= 71.50 SEC)
                              16.04 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-11)
                              429.7 K
                           6.699E+05 J/KG
LHP INLET ENTHALPY
TEST SECTION:
                             .72 MPA
439.41 K
    PRESSURE
    SAT TEMP
                             35.60 KG/SEC-M**2
    MASS FLUX
    INLET QUALITY
                              -.016
                          6.699E+05 J/KG
    INLET ENTHALPY
QUENCH FRONT:
                                .262 M
    ELEVATION
                               .0063 M/SEC
    VELOCITY
                               .038
    QUALITY
NET LHP POWER TO FLUID
                                0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF TV
                        XE XA
```

(M) (M) (K)

1.841 1.579 805.9 .327 .236

WALL TEMPER	ATURE MEASI	UREMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	M/W**5
.013	473.0	014	4.32E+04	
.051	492.0	008	4.938+04	
.063	465.5	006	4.11E+04	
.089	479.3	002	4.40E+04	
.114	469.1	.002	4.28E+04	
. 140	460.0	.005	4.31E+04	
. 165	468.4	.010	6.40E+04	
.317	760.7	.055	1.05E+05	
. 394	825.1	.077	6.64E+04	
. 470	853.5	.095	6.61E+04	
.546	875.0	.112	6.48F+04	
.622	903.2	. 129	6.29E+04	
.698	940.7	. 145	6.03E+04	
.775	977.3	. 161	6.03E+04	
.851	1006.6	.177	5.98E+04	
.927	1025.6	. 192	5.60E+04	
1.003	1038.0	.207	5.50E+04	
1.079	998.2	.221	4.80E+64	8.99E-01
1.143	966.1	.231	4.28E+04	3.33E+02
1,181	905.6	.236	3.67E+04	2.55E+03
1.244	870.1	.244	3.75E+04	
1.308	945.0	.253	4-01E+04	
1.384	993.8	.263	4.13E+04	
1.460	984.1	.274	3.91E+04	
1.511	997.0	.281	4.11E+04	
1.562	1003.9	.289	4-54E+04	
1.613	1033.1	.297	4.412+04	
1.689	1058.5	.308	4.41E+04	
1.765	1060.2	.320	4.26E+04	
1.816	1045.3	.327	3.89E+04	
1.867	1008.7	. 334	4.18E+04	
1.918	995.7	. 341	3.67E+04	
1.994	989.8	.350	3.34E+04	
2.070	991.1	. 359	3.20E+04	
6.070				

FAFETTE MENTS FORM STORY	(TIME= 83	.50 SEC)
(INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3)	16.04	MPA
FCV TEMPERATURE (TE-FCV-1T)	429.6	K
LHP INLET ENTHALPY TEST SECTION:	6.696E+05	J/KG
PRESSURE	. 72	MPA
	439.36	
SAT TEMP MASS FLUX		KG/SEC-M**2
	016	
INLET QUALITY INLET ENTHALPY	6.696E+05	
QUENCH FRONT:		
ELEVATION	. 338	M
VELOCITY	.0063	M/SEC
QUALITY	. 049	
NET LHP POWER TO FLUID	0.0	
VAPOR TEMPERATURE MEASUREMENT	LOCATION	INFORMATION

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .894 723.0 .232 .179

WALL TEMPER	ATURE MEASE	REMENT LOC	ATION INFORMAT	HEAT LOSS
ELEVATION	TEMP	XE	W/M**2	W/M**2
(M)	(K)		M/ME	11/11
.013	465.7	014	4.08E+04	
.051	477.6	009	4.39E+04	
.063	461.1	007	3.93E+04	
.089	471.8	003	4.08E+04	
. 114	463.0	.000	3.97E+04	
.140	455.2	.004	3.89E+04	
. 165	459.4	.007	4.05E+04	
.317	529.5	.043	9.475+04	
. 394	788.1	.067	8.91E+04	
.470	819.1	.087	6.10E+04	
.546	842.1	. 103	6.05E+04	
.622	8/1.4	.119	6.05E+04	
.698	913.1	. 135	5.93E+04	
.775	951.3	. 151	5.81E+04	
.851	980.9	. 166	5.81E+04	
.927	1002.8	. 181	5.70E+04	
1.003	1015.7	. 196	5.73E+04	
1.079	985.8	.210	4.83E+04	
1.143	958.1	.220	4.56E+04	1.54E+02
1.181	902.2	,226	3.95E+04	2.06E+03
1.244	866.2	.235	4.12E+04	
1.308	941.7	. 244	4.14E+04	
1.384	988.5	.255	4.31E+04	
1.460	981.8	.266	4.06E+04	
1.511	992.9	.274	4.20E+04	
1.562	994.9	.281	4.52E+04	
1.613	1025.4	.289	4.43E+04	
1.689	1050.8	. 301	4.38E+04	
1.765	1055.2	.312	4.16E+04	
	1041.3	.319	3.86E+04	
1.816	1003.9	.326	4.20E+04	
	996.8	. 333	3.80E+04	
1.918	994.7	. 343	3.54E+04	
1.994	998.2	. 352	3.35E+04	
2.070	990.2	. 372	3,352.04	

			WF AT FO STORY		DOLLET CEDI		26 050	TIME- (12 50 550	
100000000000000000000000000000000000000			ME= 83.50 SEC		POINT SERI					,
LOOP PRES	SURE(PE-3)		16.04 MPA 429.6 K 696E+05 J/KG		LOOP PRESS	URE(PE-3)		16.0	5 MPA	
FCV TEMPE	RATURE(TE-FCV	(-1T)	429.6 K		FCV TEMPER	ATURE (TE-F	CV-11)	429.	6 K	
LHP INLET	ENTHALPY	6.	696E+05 J/KG		LHP INLET	ENTHALPY		0.093E+0	15 J/KG	
TEST SECT	ION:		70 404		TEST SECTI	ON:			22 MDA	
PRES	SURE		. 12 MPA		PRESS	OME		1,20	th K	
SAT	TEMP		439.36 K		SALI	EMP		439.	S WEISEC	-M##2
MASS	FLUX		35.63 KG/SEC-	M==5	MASS	OHALITY		39.4	16 KU/SEC	-HE
INLE	T CHTHALDY		606E405 1/VC		INLET	ENTHAL PV		6 693F+0	15 1/KG	
QUENCH FR	ONT.	0.	0305-03 3/40		QUENCH FRO	NT:		0.0331.	2 47 114	
FLEV	ATION		338 M		ELEVA	TION		. 39	93 M	
VELO	CLIV		-0063 M/SEC		VELOC	ITY		.005	2 M/SEC	
QUAL	ily		.049		QUALI	TY		.05	54	
NET LHP P	ITY OWER TO FLUID)	0.0 W	м**2	NET LHP PO	WER TO FLU	10	0	0 W	
				TION						
ELEVATION		TV XE			ELEVATION	DZQF	TV	XE X	A	
(M)		(K)			(M)	(M)	(K)			
1.841	1.504 6	315.9 .31	9 .229		1.841	1,448	794.0	.314 .22	9	
WALL TEMP	FRATURE MEASI	REMENT LOC	ATION INFORMATI	ON HEAT LOSS W/M**2	WALL TEMPE	RATURE MEA	SUREMENT	LOCATION	INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE	HEA	AT FLUX	HEAT LOSS
(M)	(K)		M/W**5	M/W**5	(M)	(K)		W,	/M**2	M/W**5
.013	465.7	014	4.08E+04	W/M**2	.013	461.8	014 009	3.9	98E+04	
.051	477.6	009	4.39E+04		.051	470.4	009	4.	16F+04	
.063	461.1	007	3.93E+04		.063	458.8	007	3.1	88E+04	
.089	1,71 0	003	3.93E+04 4.08E+04		.089	468.2		3.9	16E+04	
.114	463.0 455.2 459.4 529.5 788.1 819.1 842.1	.000	3.97E+04		. 114	460.3	000	3.4	39E+04	
, 140	455.2	.004	3.89E+04		. 140	453.8	.003	3.4	31E+04	
. 165	459.4	.007	4.05E+04		. 165	456.2			90E+04	
. 317	529.5	.043	9.47E+04		.317	493.0		5.1	88E+04	
. 394	788.1	.067	9.47E+04 8.91E+04 6.10E+04		. 394	680.8	.055		765+07	
.470	819.1	.087	6.05E+04		546	794.2 818.6	.095	5	75E+04	
.546	871.4	.119	6.058+04		622	848.4	. 110			
.698	011.4	.135	5.93E+04		698	889.4	. 126		01E+04	
.775	951.3	. 151	5.81E+04		775	929.3	, 142		02E+04	
.851	980.9	. 166	5.81E+04		.851	959.8	, 157		BOE+04	
.927	1002.8	. 181	5.70E+04		.927	982.1	.173		77E+04	
1.003	1015.7	. 196	5.73E+04		1.003	995.0	. 188			
1.079	985.8	.210	4.83E+04		1.079	974.9	.202		86E+04	
1.143	958.1	.220	4.56E+04	1.54E+02	1.143	948.9	.213	4.	70E+04	7.10E+02
1.181	902.2	.226	3.95E+04	2.06E+03	1.181	897.4	.219		10E+04	2.38E+03
1.244	866.2	.235	4.12E+04		1.244	859.2	.228		39E+04	
1.308	941.7	. 244	4.14E+04		1.308	937.9 983.1	.238		25E+04 39E+04	
1.384	988.5 981.8	.255	4.31E+04 4.06E+04		1,460	979.1	.260		14E+04	
1.511	992.9	.274	4.20E+04		1,511	989.0	.268		29E+04	
1.562	994.9	.281	4.52E+04		1.562	988.4	.276		42E+04	
1.613	1025.4	.289	4.43E+04		1.613	1019.5	.283		39E+04	
1.689	1050.8	.301	4.38E+04		1.689	1045.3	.295		38E+04	
1.765	1055.2	312	4.16E+04		1.765	1051.7	. 306	4.	20E+04	
1.816	1041.3	. 319	3.862+04		1.816	1038.3	.314	3.	91E+04	
1.867	1003.9	. 326	4.20E+04		1.867	1000.1	.321	4.	21E+04	
1.918	996.8	. 333	3.80E+04		1.918	997.3	. 328		81E+04	
1.994	994.7	. 343	3.546+04		1.994	997.3 997.8 1003.0	. 338		60E+04	
2.070	998.2	. 352	3.35E+04		2.070	1003.0	. 347	3.	47E+04	

1006.8

. 343

3.73E+04

```
POINT SERIAL NO. 1175.051 (TIME= 85.50 SEC)
POINT SERIAL NO. 3174.060 (TIME= 109.50 SEC)
                                                                     (INFERRED VAPOR TEMP)
                                                                     LOOP PRESSURE ( PE-3)
                                16.02 MPA
                                                                                                      16.11 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE(TE-FCV-11)
                               429.4 K
                                                                     FCV TEMPERATURE (TE-FCV-11)
                                                                                                      616.2 K
                            6.688E+05 J/KG
                                                                     LHP INLET ENTHALPY
LHP INLET ENTHALPY
                                                                                                 1.614E+06 J/KG
TEST SECTION:
                                                                     TEST SECTION:
    PRESSURE
                                   .72 MPA
                                                                         PRESSURE
                                                                                                       3.50 MPA
                               439.34 K
    SAT TEMP
                                                                         SAT TEMP
                                                                                                     515.68 K
                             35.67 KG/SEC-M**2
    MASS FLUX
                                                                         MASS FLUX
                                                                                                    25.89 KG/SEC-M**2
                                                                         INLET QUALITY
    INLET QUALITY
                               -.016
                                                                                                       . 322
    INLET ENTHALPY
                            6.688E+05 J/KG
                                                                         INLET ENTHALPY
                                                                                                  1.614E+06 J/KG
                                                                     QUENCH FRONT:
QUENCH FRONT:
    ELEVATION
                                 .476 M
                                                                         ELEVATION
                                                                                                       .319 M
    VELOCITY
                                .0052 M/SEC
                                                                         VELOCITY
                                                                                                      .0067 M/SEC
    QUALITY
                                 .062
                                                                         QUALITY
                                                                                                       . 395
NET LHP POWER TO FLUID
                                                                     NET LHP POWER TO FLUID
                                 0.0 W
                                                                                                       0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                     VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION DZQF
                   TV
                            XE XA
                                                                     (INFERRED VAPOR TEMP)
            (M)
                     (K)
                                                                     ELEVATION
                                                                                 DZQF
                                                                                          IV
                                                                                                  XE
 (M)
                                                                                                        XA
                                                                      (M)
                                                                                 (M)
                                                                                          (K)
1.841 1.365
                  772.4 .309 .229
                                                                     1.232
                                                                                 .912
                                                                                         810.0 .683 .482
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            TEMP
                    XE HEAT FLUX HEAT LOSS
                                                                     WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                 TEMP
 (M)
             (K)
                                  W/M##2
                                               W/M##2
                                                                     ELEVATION
                                                                                         XE HEAT FLUX
                                                                                                                    HEAT LOSS
                                                                      (M)
                                                                                   (K)
                                                                                                        W/M##2
                                                                                                                      W/M##2
 .013
             457.5
                      -.015
                                3.89E+04
                                                                                             .324
 .051
             463.6
                      -.010
                                 3.96E+04
                                                                      .013
                                                                                  539.7
                                                                                                       2.64E+04
                                                                                             .330
             456.1
                      -.008
                                3.83E+04
                                                                      .051
                                                                                  555.8
 .063
                                                                                                     3.18E+04
                               3.85E+04
3.85E+04
                                                                                             .332
                                                                                                      2.59E+04
 .089
             464.7
                       -.004
                                                                      .063
                                                                                  535.8
 .114
             457.4
                       -.001
                                                                      .089
                                                                                  548.4
                                                                                             . 336
                                                                                                      2.85E+04
                                3.77E+04
                       .002
 . 140
             452.6
                                                                      . 114
                                                                                  540.1
                                                                                             . 340
                                                                                                      2.90E+04
                       .006
                                                                      . 140
 . 165
             453.4
                                 3.81E+04
                                                                                             . 345
                                                                                  531.2
                                                                                                       3.35E+04
                       .027
                                                                      . 165
                                                                                             .351
 .317
             474.1
                                 4.27E+04
                                                                                  536.8
                                                                                                     4.85E+04
                       .040
             507.1
                                 5.53E+04
                                                                                  661.8
                                                                                             . 394
 . 394
                                                                      .317
                                                                                                       5.28E+04
 .470
             642.3
                       .061
                                1.02E+05
                                                                      . 394
                                                                                  778.7
                                                                                             .422
                                                                                                       7.83E+04
             788.4
                       .082
                                6.46E+04
  -546
                                                                      .470
                                                                                  837.9
                                                                                             . 455
                                                                                                      7.41E+04
                       .098
                                                                                  884.7
  .622
             817.4
                                 5.32E+04
                                                                      .546
                                                                                             .485
                                                                                                       6.57E+04
                       .112
                                                                                             .513
                                5.56E+04
                                                                      .622
 .698
             853.9
                                                                                  902.2
                                                                                                       6.61E+04
                       .128
                                                                                             .540
 .775
             891.7
                                 5.87E+04
                                                                      .698
                                                                                  940.6
                                                                                                       6.09E+04
                                                                                  959.5
 .851
             926.3
                       . 143
                                 5.79E+04
                                                                      .775
                                                                                             .566
                                                                                                      5.80E+04
                       . 158
  .927
             949.2
                                 5.71E+04
                                                                      .851
                                                                                  976.4
                                                                                             .590
                                                                                                       5.52E+04
                       .173
                                                                       .927
 1.003
             963.1
                                 5.53E+04
                                                                                  989.1
                                                                                             .613
                                                                                                       5.3;E+04
 1.079
             956.1
                                                                      1.003
                                                                                             .635
                       .187
                               4.96E+04
                                                                                  987.4
                                                                                                      5.12E+04
                                               6.16E+02
1.143
             931.4
                       .197
                                4.78E+04
                                                                     1.079
                                                                                  950.9
                                                                                             .655
                                                                                                       3.99E+04
                       .203
                                4.22E+04
                                              2.53E+03
                                                                                  919.5
1,181
             886.6
                                                                     1.143
                                                                                             .668
                                                                                                      3.70E+04
                       .217
1.244
             830.0
                                 8.54E+04
                                                                      1.181
                                                                                  865.7
                                                                                             .676
                                                                                                      3.13E+04
                                                                                                                     1.58E+03
1.308
             929.1
                        .232
                                 4.45E+04
                                                                     1.244
                                                                                  838.1
                                                                                             .688
                                                                                                      3.75E+04
                        .244
                                 4.58E+04
                                                                                             .702
1.384
             971.8
                                                                      1.308
                                                                                  900.4
                                                                                                       3.99E+04
 1.460
             971.8
                        .256
                                 4.38E+04
                                                                     1.384
                                                                                  946.4
                                                                                             .719
                                                                                                       4.02E+04
                        .263
 1.511
             980.5
                                 4.36E+04
                                                                     1,460
                                                                                                       3.55E+04
                                                                                  960.8
                                                                                             .735
1.562
             978.8
                        .271
                                 4.39E+04
                                                                     1.511
                                                                                  969.3
                                                                                             .746
                                                                                                       3.74E+04
                                                                                             .757
1.613
            1010.3
                       .279
                                 4.38E+04
                                                                     1.562
                                                                                  969.3
                                                                                                       3.91E+04
            1035.9
                       .290
                                 4.37E+04
1.689
                                                                     1.613
                                                                                  983.8
                                                                                             . 767
                                                                                                       3.67E+04
                       .302
1.765
            1044.2
                                 4.26E+04
                                                                                  990.5
                                                                     1.689
                                                                                             . 782
                                                                                                       3.33E+04
            1031.9
                       .309
                                 3.98E+04
                                                                                             .796
1.816
                                                                     1.765
                                                                                  988.2
                                                                                                       3.03E+04
 1.867
             992.8
                       .316
                                 4.26E+04
                                                                     1.816
                                                                                  982.6
                                                                                             .804
                                                                                                       2.61E+04
1.918
             997.4
                       . 323
                                 3.84E+04
                                                                                             .811
                                                                     1.867
                                                                                  961.4
                                                                                                       2.46E+04
1.994
            1001.0
                       . 333
                                 3.71E+04
                                                                     1.918
                                                                                  938.6
                                                                                             .818
                                                                                                       2.21E+04
```

1.994

2.070

935.9

934.0

.827

.835

1.94E+04

1.74E+04

	INEL POST-CHI	FEXPERIME	NT NO. 175			INEL POST	-CHF EXPERIM	ENT NO. 175	
POINT SERI	AL NO. 3175.05	50 (TIME	= 87.50 SEC)	POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW VAPOR TEMPE (INFERRED V ELEVATION	L NO. 117	5.061 (TIM	E= 96.50 SEC)
LOOP PRICE	HDE I DE - 23		16 OR MPA		LOOP PRESSU	REIPE-31		16 06 MPA	
ECU TEMPER	ATURELTE-FOV-1	13	616 1 K		FCV TEMPERA	TURELTE-FC	V-1T)	616.0 K	
THE INTER	ENTHAL PY	1.61	4E+06 1/KG		LHP INLET E	NTHALPY	1.6	13E+06 J/KG	
TEST SECTI	ON:				TEST SECTIO	N:			
PRESS	URE		3.50 MPA		PRESSU	RE		3.50 MPA	
SAT I	EMP	5	15.67 K		SAT TE	MP ·		515.66 K	
MASS	FLUX		25.89 KG/SEC	-M**5	MASS F	LUX		25.79 KG/SEC-	-M**2
INLET	QUALITY		.322		INLET	QUALITY		. 322	
INLET	ENTHALPY	1.61	14E+06 J/KG		INLET	ENTHALPY	1.6	13E+06 J/KG	
QUENCH FRO	NT:		***		QUENCH FROM	1:		207 W	
ELEVA	TION		.333 M		ELEVAI	TUN		007h M/SEC	
VELOC	TV		100/ M/SEC		OHALLT	V .		397	
NET LUP PO	WER TO FILLID		0 0 W		NET THE POW	ER TO FLUI	D	0 0 W	
MET EHR FO	men to train		0.0 #		mer em ran				
VAPOR TEMP	ERATURE MEASURE	EMENT LOCA	TION INFORMA	TION	VAPOR TEMPE	RATURE MEA	SUREMENT LOC	ATION INFORMA	TION
ELEVATION	DZQF TV	XE	XA		(INFERRED V	APOR TEMP)			
(M)	(M) (K	1			ELEVATION	DZQF	TV XE	XA	
					(M)	(M)	(K)		
1.841	1.509 859	.1 .797	.537				****	1.70	
		WELT LOCAT	TION INCODEST	100	1.232	.835	700.0 .647	.478	
WALL TEMPE	RATURE NEASURE	MENT LOCAL	HEAT FLUX	HEAT LOSS	WALL TEMPER ELEVATION (M)	ATURE MEAS	BREMENT LOCA	TION INFORMATI	LON
ELEVALIUM	1500	AL	HEAT LEUN	U/M##2	FLEVATION	TEMP	XF	HEAT FLUX	HEAT LOSS
1003	()		m/m	m/H 2	(M)	(K)	216	W/M##2	M/M**2
.013	(K) 538.7 553.5 534.9 546.9 538.6 529.2 531.4 628.7 762.7 823.8 875.2 892.2 951.9 969.4 982.6 981.2 947.1 916.2 863.3 834.2 896.6 942.6 958.0 966.1	. 324	2.60E+04		1				
.051	553.5	. 330	3.08E+04		.013	534.8	.323	2.48E+04	
.063	534.9	. 332	2.53E+04		.051	545.2	. 329	2.77E+04	
.089	546.9	. 336	2.76E+04		.063	531.7	. 331	2.42[+04	
.114	538.6	. 340	2.74E+04		.089	541.9	. 334	2.54E+04	
. 140	529.2	. 344	2.78E+04		. 114	534.1	. 338	2.49E+04	
- 165	531.4	. 349	4. SUE+U4		165	525.1	342	2.3/1104	
300	762 7	. 309 h15	7 58E+0h		317	603.8	373	h 00E+00	
470	821 8	1018	7 435+04		394	692.7	396	6 55E+04	
546	875.2	477	6.465+04		470	755.1	.425	7.298+04	
.622	892.6	.505	6.52E+04		.546	835.5	. 454	5.92E+04	
.698	932.2	.532	6.07E+04		.622	852.3	. 480	6.01E+04	
.775	951.9	.558	5.78E+04		. 698	895.9	.505	5.73E+04	
.851	969.4	.582	5.50E+04		. 775	917.9	.529	5.62E+04	
.927	982.6	.605	5.31E+04		. 394 . 470 . 546 . 622 . 698 . 775 . 851	939.2	.552	5.23E+04	
1.003	981.2	.627	5.12E+04		1 003	953.8	-575	5.18E+04	
1.079	947.1	-641	3.75E+0h		1 079	929.6	616	4.90E+04	
1.193	910.2	668	3.17E+04	1.52E+03	1 143	900.7	630	3 8hF+0h	5.97E+02
1 200	834.2	681	3.89E+04	1.322.03	1.181	851.1	.638	3.23E+04	2.60E+03
1.308	896.6	.695	3.96E+04		1.244	807.7	.654	5.90E+04	
1.384	942.6	.712	4.02E+04		1.308	880.3	.672	3.85E+04	
1.460	958.0	.728	3.58E+04		1.384	926.6	.688	3.77E+04	
1.511	966.1	.738	3.73E+04		1.460	945.9	. 703	3.42E+04	
1.562	965.7	.749	3.91E+04 3.68E+04		1.511	953.3	. 713	3.46E+04	
1.613	25057 + 68	.760	3.68E+04		1.562	951.7	. 123	W/M**2 2.48E+04 2.77E+04 2.42E+04 2.49E+04 2.49E+04 4.04E+04 6.55E+04 5.92E+04 5.92E+04 5.73E+04 5.62E+04 5.23E+04 4.10E+04 3.84E+04 3.23E+04 3.23E+04 3.46E+04 3.46E+04 3.47E+04 3.47E+04 3.47E+04 3.20E+04 3.00E+04 2.67E+04 2.67E+04 2.13E+04 1.93E+04	
1.689	988.2	.775	3.36E+04 3.06E+04 2.66E+04 2.53E+04		1.613	968.6	. 734	3.4/1+04	
1.765	980.5	.789	3.001.404		1.009	970.0	761	3.20E+04	
1.816	961.5	.797	2 535+04		1 816	976 5	769	2 675+04	
1,918	938.6	811	2.27E+04		1.867	957.7	.777	2.65F+04	
1.994	936.5	.820	2.27E+04 2.01E+04		1.918	938.3	. 784	2.34E+04	
2.070	935.1	.829	1.79E+04		1.994	938.6	. 794	2.13E+04	
					2.070	939.2	.802	1.93E+04	

```
POINT SERIAL NO. 3175.060 (TIME= 97.50 SEC)
                                                                        POINT SERIAL NO. 1175.071 (TIME= 105.50 SEC)
                                                                        (INFERRED VAPOR TEMP)
LOOP PRESSURE ( PE-3 )
                                  16.06 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           16.07 MPA
FCV TEMPERATURE(TE-FCV-1T)
                                 616.0 K
                                                                        FCV TEMPERATURE ( TE-FCV-11)
                                                                                                        616.1 K
                                                                        LHP INLET ENTHALPY
LHP INLET ENTHALPY
                              1.613E+06 J/KG
                                                                                                      1.613E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
     PRESSURE
                                   3.50 MPA
                                                                             PRESSURE
                                                                                                           3.50 MPA
     SAT TEMP
                                 515.66 K
                                                                             SAT TEMP
                                                                                                         515.68 K
     MASS FLUX
                                  25.79 KG/SEC-M**2
                                                                             MASS FLUX
                                                                                                          25.58 KG/SEC-M**2
     INLET QUALITY
                                  . 322
                                                                             INLET QUALITY
                                                                                                            .322
     INLET ENTHALPY
                              1.613E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                      1.613E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
    ELEVATION
                                   .404 M
                                                                             ELEVATION
                                                                                                            .456 M
     VELOCITY
                                  .0074 M/SEC
                                                                             VELOCITY
                                                                                                           .0058 M/SEC
                                  . 399
     QUALITY
                                                                             QUALITY
                                                                                                           .410
NET LHP POWER TO FLUID
                                   0.0 W
                                                                        NET LHP POWER TO FLUID
                                                                                                            0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                     TV
                             XE XA
                                                                        (INTERRED VAPOR TEMP)
             (M)
 (25)
                      (K)
                                                                        ELEVATION DZQF
                                                                                                      XE
                                                                         (M)
                                                                                     (M)
                                                                                              (K)
1.841
            1.437
                  836.6 .771 .531
                                                                        1.232
                                                                                     . 776
                                                                                             720.0 .635 .488
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP.
                        XE
                                   HEAT FLUX
                                                HEAT LOSS
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
 (M)
              (K)
                                    W/M##2
                                                  W/M**2
                                                                        ELEVATION
                                                                                      TEMP
                                                                                               XE
                                                                                                           HEAT FLUX
                                                                                                                          HEAT LOSS
                                                                         (M)
                                                                                                            W/M**2
                                                                                                                           W/M##2
                                                                                       {K}
              534.5
  .013
                                   2.47E+04
                         .323
  .051
              544.5
                         .329
                                   2.75£+04
                                                                          .013
                                                                                      532.3
                                                                                                           2.41E+04
                                                                                                 .323
                                                                          .051
  .063
              531.5
                         . 331
                                  2.42E+04
                                                                                      540.2
                                                                                                 . 329
                                                                                                           2.59E+04
  .089
              541.5
                                   2.53E+04
                                                                          .063
                         . 334
                                                                                      529.7
                                                                                                           2.36E+04
                                                                                                 . 331
 .114
              533.7
                         . 338
                                   2,48E+04
                                                                          .089
                                                                                      538.9
                                                                                                 . 334
                                                                                                           2.44E+04
 . 140
              525.5
                                                                         . 114
                         . 341
                                   2.36E+04
                                                                                      531.5
                                                                                                           2.40E+04
                                                                                                 .338
  . 165
                         . 345
              525.7
                                   2.44E+04
                                                                                                 . 341
                                                                          . 140
                                                                                      524.4
                                                                                                           2.30E+04
  .317
              598.3
                         .372
                                   3.95E+04
                                                                          . 165
                                                                                      524.0
                                                                                                 . 344
                                                                                                           2.35E+04
                                                                         .317
  .394
              676.8
                         . 395
                                  6.50E+04
                                                                                                           3.34E+04
                                                                                      558.9
                                                                                                 . 369
  . 470
              747.6
                                   7.24E+04
                                                                         . 394
                                                                                                 . 389
                         .424
                                                                                      643.9
                                                                                                           5.79E+04
  .546
                                   5.92E+04
              831.4
                         .453
                                                                          .470
                                                                                      694.2
                                                                                                 .415
                                                                                                           6.56E+04
  .622
              848.0
                         -478
                                   6.03E+04
                                                                          .546
                                                                                      801.2
                                                                                                 .442
                                                                                                           5.61E+04
 .698
              892.0
                         .504
                                   5.73E+04
                                                                          .622
                                                                                      817.9
                                                                                                 .466
                                                                                                           5.71E+04
                                                                         .698
  .775
              914.2
                         .528
                                  5.64E+04
                                                                                      864.5
                                                                                                 .491
                                                                                                            5.60E+04
                                                                         .775
  .851
             936.0
                         .551
                                  5.23E+04
                                                                                      887.1
                                                                                                 .515
                                                                                                            5.63E+04
  927
              950.6
                        -574
                                 5.15E+04
                                                                          .851
                                                                                      912.3
                                                                                                 .538
                                                                                                           5.25E+04
 1.003
              951.3
                         .595
                                  4.94E+04
                                                                          .927
                                                                                      927.9
                                                                                                 .561
                                                                                                           5.19E+04
1.079
              927.6
                         .615
                                  4.08E+04
                                                                        1,003
                                                                                      929.7
                                                                                                 .583
                                                                                                           5.05E+04
1.143
                                                                                                 .603
              898.9
                         .629
                                   3.82E+04
                                                 6.58E+02
                                                                        1.079
                                                                                      913.2
                                                                                                           4.17E+04
1.181
              849.7
                         -636
                                  3.22E+04
                                                 2.68E+03
                                                                         1.143
                                                                                      885.9
                                                                                                 -618
                                                                                                           3.96E+04
                                                                                                                          5.38E+02
 1.244
              803.1
                         .653
                                   6.10E+04
                                                                         1.181
                                                                                      829.9
                                                                                                 .626
                                                                                                           3.25E+04
                                                                                                                          2.47E+04
1.308
              878.6
                         .671
                                   3-81F+04
                                                                         1.244
                                                                                      768.1
                                                                                                 644
                                                                                                           6.98E+04
1.384
              924.9
                         .687
                                   3.73E+04
                                                                         1.308
                                                                                      866.3
                                                                                                 .664
                                                                                                           3.83E+04
1.460
                        . 702
                                   3.38E+04
             944.6
                                                                         1.384
                                                                                      913 4
                                                                                                 .680
                                                                                                           3.77E+04
1.511
             952.0
                        .712
                                   3.41E+04
                                                                         1,460
                                                                                      935.8
                                                                                                 .696
                                                                                                           3.46E+04
                        .722
1.562
              950.2
                                   3.60E+04
                                                                        1.511
                                                                                      942.5
                                                                                                 .706
                                                                                                           3.53E+04
                        .732
1.613
             967.3
                                   3.45E+04
                                                                        1.562
                                                                                      939.4
                                                                                                 .716
                                                                                                           3.74E+04
1.689
             977.8
                         .746
                                   3.16E+04
                                                                        1.613
                                                                                      957.7
                                                                                                 . 727
                                                                                                           3.59E+04
1.765
             978.7
                         .759
                                   2.95E+04
                                                                                      970.5
                                                                                                 .742
                                                                        1.689
                                                                                                           3.31E+04
1.816
             975.9
                         .767
                                   2.64E+04
                                                                                                 .756
                                                                        1.765
                                                                                      972.9
                                                                                                           3.15E+04
                        .775
1.867
             957.2
                                   2.65E+04
                                                                                                 .764
                                                                        1.816
                                                                                      971.4
                                                                                                           2.83E+04
                        .782
1.918
             938.2
                                   2.33E+04
                                                                        1.867
                                                                                      954.0
                                                                                                 .773
                                                                                                           2.80E+04
1.994
             938.7
                        . 792
                                   2.13E+04
                                                                        1.918
                                                                                      937.4
                                                                                                 .780
                                                                                                           2.49E+04
             939.5
2.070
                         .800
                                   1.92E+04
                                                                        1.994
                                                                                      939.3
                                                                                                 .791
                                                                                                           2.32E+04
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941.7

.800

2.10E+04

2,070

939.4

942.3

.790

.800

2.44E+04

2.23E+04

INEL POST-CHE EXPERIMENT NO. 175 INEL POST-CHF EXPERIMENT NO. 175 "OINT SERIAL NO. 1175.080 (TIME= 110.50 SEC) POINT SERIAL NO. 1175.091 (TIME= 120.50 SEC) (INFERRED VAPOR TEMP) 16.05 MPA LOOP PRESSURE(PE-3) LOOP PRESSURE(PE-3) 16.03 MPA FCV TEMPERATURE(TE-FCV-11' 616.0 K 616.2 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.615E+06 J/KG LHP INLET ENTHALPY 1.613E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.50 MPA PRESSURE 3.50 MPA 515.65 K 25.46 KG/SEC-M**2 SAT TEMP SAT TEMP 515.69 K MASS FLUX 25.62 KG/SEC-M**2 MASS FLUX INLET QUALITY INLET QUALITY . 322 . 322 INLET ENTHALPY 1.613E+06 J/KG INLET ENTHALPY 1.615E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .485 M ELEVATION .533 M VELOCITY .0058 M/SEC VELOCITY .0041 M/SEC QUALITY .417 QUALITY .423 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (INFERRED VAPOR TEMP) (M) (M) (K) ELEVATION DZQF IV (M) (M) (K) 1,232 .747 703.2 .631 .493 1,232 .699 675.0 .614 .493 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION H/Mes2 TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/N##2 ELEVATION (M) (K) W/M##2 W/M**2 .323 531.6 .013 2.39E+04 .329 .051 538.7 2.54E+04 .013 530.3 .324 2.36E+04 .331 .329 .063 529.2 2.35E+04 .051 536.4 2.47E+04 . 334 .089 538.0 2.42E+04 .063 528.2 . 331 2.33E+04 2.39E+04 2.39E+04 . 334 .114 530.8 . 337 .089 536.5 .341 . 114 .338 . 140 524.1 2.29E+04 529.6 2.36E+04 . 344 . 140 . 341 . 165 2.32E+04 523.5 523.5 2.27E+04 .367 . 344 3.01E+04 5.71E+04 . 165 .317 552.5 522.7 2.29E+04 . 394 .386 .317 547.5 . 366 2.71E+04 622.3 6.46E+04 5.43E+04 5.49E+04 .412 .380 582.0 .470 678.2 . 394 3.65E+04 6.64E+04 5.10E+04 .546 790.9 . 438 .470 633.3 .402 .622 807.1 .461 .546 772.3 .428 5.13E+04 .698 854.2 .485 5.48E+04 .622 788.0 .450 877.1 .509 5.57E+04 835.7 .775 .698 .472 5.15E+04 .533 903.4 858.1 5.43E+04 .851 5.22E+04 .775 . 495 .518 .927 919.4 .555 5.18E+04 .851 886.6 5.08E+04 .578 5.04E+04 4.25E+04 1.003 921.5 .927 902.8 .540 5.11E+04 1.079 907.9 .598 1.003 906.2 .561 4.90E+04 1.143 881.0 897.0 .613 4-02E+04 6.57E+02 1.079 .581 4.29E+04 .621 -596 1.181 824.6 3.29E+04 2.82E+04 1.143 870.8 4.05E+04 8.09E+02 1.244 761.6 7.41E+04 1.181 773.0 .640 .604 2.85E+04 4.27E+04 1.308 861.6 .661 3.79E+04 1.244 731.3 .625 8.97E+04 1.384 908.8 .677 3.75E+04 1.308 853.4 . 648 3.71E+04 3.45E+04 1.460 932.4 .693 1.384 900.8 3.61E+04 . 664 .703 3.558+04 .679 1.511 938.6 1,460 926.0 3.40E+04 .713 3.80E+04 1,562 935.3 1.511 931.7 .689 3.50E+04 .724 1.613 953.9 3.63E+04 3.39E+04 1.562 927.4 .699 3.88E+04 .739 .710 1.689 967.4 1.613 946.8 3.65E+04 .754 3.26E+04 2.94E+04 2.89E+04 1.765 970.3 3.37E+04 1.689 .725 961.3 .763 .739 965.0 3.16E+04 1.816 969.3 1.765 .771 .748 1.867 952.7 1.816 965.0 2.94E+04 .779 1.918 2.59E+04 .757 2.99E+04 936.9 1.867 949.4

1.918

1.994

2.070

935.0

938.6

942.5

.765

.776

.787

2.70E+04

2.33E+04

2.56£+04

INEL PUSI-CHI EXPERIMENT NO. 179			THE TOUT	Marie Marie M.	arrent me.	
POINT SERIAL NO. 1179.010 (TIME= 83.50 SEC)					TIME= 94.50	
PRESSURE 3.49 PRA SAT FEMP 515.61 K MASS FLUX 50.79 KG/SEC-I INLET QUALITY .323 INLET ENTHALPY 1.616E+06 J/KG QUENCH FRONT: ELEVATION .590 M VELOCITY .0087 M/SEC QUALITY NET LHP POWER TO FLUID 0.0 W	M**2	SAT IEI MASS FI INLET I INLET I QUENCH FRON FLEVAT VELOCI QUALIT NET LHP POW	NP LUX QUALITY ENTHALPY F: HON TY Y ER TO FLUI	Ď	515.61 K 50.77 KG .322 1.614E+06 J/ .687 M .0092 M/ .460 0.0 W	/SEC-M**2 KG SEC
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMAT ELEVATION DZQF IV XE XA (M) (K)	ION	VAPOR TEMPER ELEVATION (M)	RATURE MEA DZQF (M)	SUREMENT TV (K)	LOCATION INF	ORMAT FON
1.232 642 591.6 586 519		1.232	.545	580.2 .	584 .525	
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION	ON HEAT LOSS W/M**2	WALL TEMPERATION (M)	ATURE MEAS TEMP (F)	UREMENT L	OCATION INFO HEAT FL W/M**2	RMATION UX HEAT LOSS W/W**2
ELEVATION (K) (M) (K) (K) (K) (K) (K) (K)	2.67E+02 4.14E+03 7.74E+03	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244 1.308 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.867 1.918 1.994 2.070	531.0 536.2 529.6 526.3 525.5 541.6 566.5 564.8 592.0 616.3 782.8 883.5 881.1 888.5 889.1 841.3 779.5 895.9 936.0 938.9 937.2 917.6 948.3 972.2 979.2 970.3 976.3 960.3	324 331 333 337 341 346 350 376 389 403 418 438 464 489 508 525 541 557 569 576 589 602 617 631 661 661 661 676 690 709 718 731	5.85E+0 5.90E+0 5.88E+0 5.88E+0 5.88E+0 5.88E+0 6.06E+0 6.06E+0 6.21E+0 6.59E+0 7.41E+0 7.51E+0 7.51E+0 7.38E+0 6.81E+0 6.82E+0 6.82E+0 6.82E+0 6.77E+0 7.09E+0 6.76E+0 6.39E+0	ត្

POINT SERIA	L NO. 117	9.030 (TIME= 102.50 SI	C-M**2	POINT SERIA	LL NO. 11	79.040	(TIME= 11	0.50 SEC	:)
LOOP PRESSUI	RE(PE-3)		15.97 MPA		LOOP PRESSU	RE(PE-3)		15.9	3 MPA	
FCV TEMPERA	TURE! TE-FC	V-1T)	615.9 K		FCV TEMPERA	ATURE (TE-F	CV-11)	615.	9 K	
LHP INLET EI	NTHALPY		1.613E+06 J/KG		LHP INLET E	NTHALPY	-	1.613E+0	6 J/KG	
TEST SECTION	N:				TEST SECTIO	IN:				
PRESSU	RE		3.50 MPA		PRESSU	IRE		3.4	9 MPA	
SAT TE	MP		515.62 K		SAI II	MP		515.5	8 K	
MASS FI	LUX		53.73 KG/SI	C-W**5	MASS 1	LUX		50.6	9 KG/SEC	-M**5
INLET	QUALITY		322		INLEI	QUALTTY		. 32		
INLET	ENTHALPY		1.613E+U6 J/KG		INLET	ENTHALPY		1.013E+1	J/KG	
GENCH FROM	I Car		750 #		QUENCH FROM	11.00		0.7		
ELEVAI	TUN		0097 M/SE		AELOCI	TV		.000	7 MISEC	
OUAL LT			1.7h		OHALLI	v		1009	h M/ SEC	
ET LHP POW	FR TO FLUI	0	0.0 W		NET LHP POW	ER TO FLU	HD	0.	0 W	
				MATION	seeboon France					*****
APOR TEMPER	RATURE MEA	SUREMENT	LOCATION INFORM	MATION	VAPOR TEMPE	HATURE ME	ASUREMENT	LOCATION	INFORMA	TION
(H)	(H)	(K)	AL AA		(M)	(M)	(K)	AL A		
1.232	472	557 9	582 540		1.232	401	545.9	.582 .55	1	
ALL TEMPERA	ATURE MEAS	UREMENT L	OCATION INFORMA	ATION	WALL TEMPER	BATURE MEA	SUREMENT	LOCATION	INFORMAT	ION
LEVALION	TEMP	XE.	HEAT PLUX	HEAT FORD	ELEVATION	1EMP	XE	HEA	MAAS	HEAT LUS
(w)	(K)		2/14-2	W/M2	(m)	(4)		147	MC	W/M2
.013	530.0	. 324	5.84E+04		.013	529.3	. 324	5.8	3E+04	
.051	534.8	.330	5.88E+04		.051	533.6	. 330	5.8	7E+04	
.063	529.0	.332	5.83E+04		.063	528.3	. 332	5.8	3E+04	
.089	536.3	.337	5.876+94		.089	535.2	. 337	5.8	6E+04	
. 114	528.6	. 341	5.84E+04		. 114	527.8	. 341	5.8	3E+04	
. 140	525.8	. 345	5.79E+04		. 140	525.5	_ 345	5.7	9E+04	
. 165	525.0	. 349	5.79E+04		. 165	524.7	. 349	5.7	8E+04	
.317	538.7	.375	6.00E+04		. 317	536.4	. 375	5.9	6E+04	
. 394	562.2	.388	6.15E+04		. 394	558.3	. 388	6.1	3E+04	
.470	557.8	.402	6.312+04		.470	553.0	,402	6.1	7E+04	
.546	5/9.8	.416	6.69E+04		- 240	511.9	.415	6.4	2E+04	
.622	202.1	-431	1.235 +04		.022	502.2	429	7.9	75+04	
.098	001.1	473	1.246.405		775	640 h	166	1.0	25+05	
451	193.3	503	0.065+05		851	797.4	.400	1 1	65+05	
027	865 3	522	7 815+00		927	830 8	530	0.9	DE+Oh	
003	87h 2	539	7.53E+08		1.003	858.5	534	7.8	QE+Oh	
079	872 7	555	7. 14E+04		1 079	861.4	550	7.0	2F+0#	
143	859 4	567	6.56E+08	3.665+03	1.103	849 4	563	7.0	4E+04	
181	833.6	578	5.79F+0h	8.12E+03	1.181	825.4	571	6.8	5E+04	
	759 2	587	8. 12E+0#		1.244	729 4	585	9.2	6F+04	
244	886.3	601	7.07E+0h		1.308	874.1	601	7.5	8E+04	
308	M-2010 - W	616	6.97E+04		1.384	917.1	.617	7.1	4E+04	
1.244	927 1				1.460	923.9	.632	6.8	6E+04	
.308 .384	927.1	631	6.75E+04				640	7 0	F F	
1.244 1.308 1.384 1.460	927.1 931.8 930.6	.631	6.75E+04 6.87E+04		1.511	921.4	- 042	F - 12	指生步行符	
1.244 1.308 1.384 1.460 1.511	927.1 931.8 930.6 905.3	.631	6.75E+04 6.87E+04 7.45E+04		1.511	921.4 889.6	.653	7.9	4E+04	
1.244 1.308 1.384 1.460 1.511 1.562	927.1 931.8 930.6 905.3 939.6	.641 .651 .662	6.75E+04 6.87E+04 7.45E+04 6.93E+04		1.511 1.562 1.613	921.4 889.6 929.8	.653	7.9	4E+04 4E+04	
1.244 1.308 1.384 1.460 1.511 1.562 1.613	927.1 931.8 930.6 905.3 939.6 965.5	.631 .641 .651 .662	6.75E+04 6.87E+04 7.45E+04 6.93E+04 6.70E+04		1.511 1.562 1.613 1.689	921.4 889.6 929.8 958.1	.653 .664	7.9	4E+04 4E+04 4E+04	
1.244 1.308 1.384 1.460 1.511 1.562 1.613 1.689	927.1 931.8 930.6 905.3 939.6 965.5 974.1	.631 .641 .651 .662 .677	6.75E+04 6.87E+04 7.45E+04 6.93E+04 6.70E+04 6.53E+04		1.511 1.562 1.613 1.689 1.765	921.4 889.6 929.8 958.1 968.1	.653 .664 .679	7.9 7.1 6.8 6.6	4E+04 4E+04 4E+04 6E+04	
1,244 1,308 1,384 1,460 1,511 1,562 1,613 1,689 1,765	927.1 931.8 930.6 905.3 939.6 965.5 974.1	.631 .641 .651 .662 .677 .691	6.75E+04 6.87E+04 7.45E+04 6.93E+04 6.70E+04 6.53E+04		1.511 1.562 1.613 1.689 1.765 1.816	921.4 889.6 929.8 958.1 968.1 958.6	.653 .664 .679 .694	7.9 7.1 6.8 6.6	4E+04 4E+04 4E+04 4E+04 6E+04 9E+04	
1, 244 1, 308 1, 384 1, 460 1, 511 1, 562 1, 613 1, 689 1, 765 1, 816 1, 867	927.1 931.8 930.6 905.3 939.6 965.5 974.1 964.9	.631 .641 .651 .662 .677 .691	6.75E+04 6.87E+04 7.45E+04 6.93E+04 6.70E+04 6.58E+04 6.58E+04		1.511 1.562 1.613 1.689 1.765 1.816	921.4 889.6 929.8 958.1 968.1 958.6 918.0	.642 .653 .664 .679 .694 .704	7.9 7.9 7.1 6.8 6.6 6.6	4E+04 4E+04 4E+04 4E+04 6E+04 9E+04 1E+04	
1.244 1.308 1.384 1.460 1.511 1.562 1.613 1.689 1.765 1.816 1.816 1.918	927.1 931.8 930.6 905.3 939.6 965.5 974.1 964.9 927.0 943.8	.631 .641 .651 .662 .677 .691 .701	6.75E+04 6.87E+04 7.45E+04 6.93E+04 6.70E+04 6.53E+04 6.58E+04 6.87E+04 6.31E+04		1.511 1.562 1.613 1.689 1.765 1.816 1.867	921.4 889.6 929.8 958.1 968.1 958.6 918.0	.642 .653 .664 .679 .694 .704	7.9 7.1 6.8 6.6 6.6 7.0	4E+04 4E+04 4E+04 4E+04 6E+04 9E+04 1E+04 5E+04	
1.244 1.384 1.384 1.460 1.511 1.562 1.613 1.689 1.867 1.816	927.1 931.8 930.6 905.3 939.6 965.5 974.1 964.9 927.0 943.8 955.2	.631 .641 .651 .662 .677 .691 .701 .710	6.75£+04 6.87£+04 7.45£+04 6.93£+04 6.70£+04 6.53£+04 6.58£+04 6.87£+04 6.31£+04	3.66E+03 8.12E+03	1.511 1.562 1.613 1.689 1.765 1.816 1.867 1.918	921.4 889.6 929.8 958.1 968.1 958.6 918.0 939.7 952.7	.642 .653 .664 .679 .694 .704 .714 .724	7.9 7.1 6.8 6.6 6.6 7.0 6.4	4E+04 4E+04 4E+04 4E+04 6E+04 9E+04 1E+04 5E+04	

			Appropriate the second			200000 1 40		and the same of	1000	
			ME= 43.50 SEC		POINT SERI	AL NO. 11	187.030	(TIME=	55.50 SEC)
LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE	RE(PE-3) TURE(TE-FC NTHALPY N: RE MP	V-11)	15.74 MPA 586.4 K 413E+06 J/KG 7.01 MPA 559.06 K	~M**2	EOOP PRESSI FCV TEMPER LHP INLET I TEST SECTION PRESSI SAT TO	URE(PE-3) ATURE(TE-1 ENTHALPY DN: URE EMP	(CV-11)	15 58 1.412£ 7 559	.53 MPA 6.2 K +06 J/KG .01 MPA .01 K	
INLET	QUALITY ENTHALPY	1.	.096 .413E+06 J/KG	-M**5	MASS INLET INLET	QUALITY ENTHALPY		1.412E	.75 KG/SEC 096 +06 J/KG	-M**2
VELOCI QUALIT	ION IY Y		.271 M .0108 M/SEC .183		QUENCH FROM	TION TTY		, ŏ	398 M 103 M/SEC 206	
NET LIP POW	ER TO FLUI	D	0.0 W		NET LHP PO	HER TO FLE	110		0.0 W	
VAPOR TEMPE ELEVATION (M)	RATURE MEA DZQF (M)	SUREMENT LO	CATION INFORMA	TION	VAPOR TEMPI ELEVATION (N)	ERATURE ME DZQF (M)	ASUREMENT iV (K)	LOCAT I	ON INFORMA	TION
1.232	.961	605.8 .52	2 .466		1.232	. 834	574.6	.482 .	463	
WALL TEMPER ELEVATION (M)	ATURE MEAS TEMP (K)	UREMENT LOC XE	ATION INFORMAT HEAT FLUX W/M**2	HEAT LOSS W/M**2	WALL TEMPÉR ELEVATION (M)	RATURE MEA TEMP (K)	ASUREMENT XE	LOCATIO	N INFORMAT EAT FLUX W/M**2	HEAT LOSS
.013 .051 .063	596.9 625.1 589.9	.100 .110 .113	1.08E+05 1.18E+05 1.07E+05		.013 .051 .063	585.3 601.9 581.0	.099	1 1	.03E+05 .09E+05	
.089 .114 .140 .165	594.7 585.1 597.0	. 120 . 127 . 134 . 143	1.15E+05 1.15E+05 1.27E+05 1.57E+05		.089 .114 .140	591.7 582.0 571.7 571.2	. 118 . 124 . 131		.04E+05 .02E+05 .00E+05	
.317 .394 .470 .546	814.7 877.3 897.8	.200 .229 .257	1.55E+05 1.57E+05 1.58E+05		.317 .394 .470	636.4 745.3 808.5	. 179 . 205 . 234	1	.28E+05 .49E+05 .70E+05	
.622 .698 .775	935.1 969.4 984.6	.315	1.59E+05 1.59E+05 1.56E+05		.622 .698 .775	869.8 869.9 905.2 921.7	.289	1	.40E+05 .40E+05	
.851 .927 1.003 1.079	1002.5 1014.9 1011.6	,401 ,429 ,457	1.53E+05 1.53E+05 1.48E+05		.851 .927 1.003	944.6 955.8 956.4	. 366	1	.37E+05 .39E+05 .38E+05	
1.143 1.181 1.244 1.308 1.384	964.7 916.4 909.0 980.2	.501 .512 .529 .548	1.22E+05 1.05E+05 1.20E+05 1.33E+05	4.64E+03 1.03E+04	1.143 1.181 1.244 1.308	929.5 892.1 875.3 936.6	.461 .471 .489 .508	1	.19E+05 .05E+05 .21E+05 .31E+05	5.17E+03 1.12E+04
1.461 1.511 1.562 1.613	1000.9 1000.9 1002.2 1023.4	.597 .613 .628 .643	1.27E+05 1.29E+05 1.28E+05 1.21E+05		1.460 1.511 1.562 1.613	965.9 964.9 965.7 995.1	.557 .572 .588 .603	1 1 1	.25E+05 .26E+05 .27E+05 .21E+05	
1.689 1.765 1.816 1.867	905.9 916.3 987.3	.665 .686 .699	1.18E+05 1.10E+05 1.07E+05 1.03E+05		1.689 1.765 1.816 1.867	1018.3 890.4 903.0 978.3	.626 .647 .661	1 1	.20E+05 .13E+05 .11E+05 .09E+05	
1.918 1.994 2.070	973.9 971.9 757.3	.741	9.49E+04 8.76E+04 9.39E+04		1.918 1.994 2.070	975.7 981.1 762.4	.687 .705 .723	9	.00E+05 .64E+04 .70E+04	

INEL POST-CHE EXPERIMENT NO. 193 AL NO. 1193.041 (TIME= 38.50 SEC

POINT SERI (INFERRED LOOP PRESS FCV TEMPER LHP INLET TEST SECTI PRESS SAI I MASS INLET INLET QUENCH FRO ELEVA VELOC QUALI NET LHP PO	AL NO. 119 VAPOR TEMP) SURE(PE-3) LATURE(TE-FC ENTHALPY ON: UNE EMP FLUX QUALITY ENTHALPY INI: ITION ITY HER TO FLUI	(3.031 (TIME) V-11) 1.6	ME= 29.50 SEC) 15.79 MPA 615.7 K 612E+06 J/KG 6.99 MPA 558.86 K 65.71 KG/SEC- 229 12E+06 J/KG .073 M .0044 M/SEC .265 0.0 W	W**5	(INFERRED LOOP PRESS FCV TEMPER LHP INLET TEST SECTI PRESS SAT T MASS INLET INLET QUENCH FRO ELEVA VELOC QUALI	AL NO. 11 VAPOR TEMP VAPOR TEMP VAPOR TEMP VAPOR TEMP ATURE(TE-F) ENTHALPY ON: URE EMP FLUX QUALITY ENTHALPY NI: TION ITY WER TO FLU	,	7.01 MPA 559.01 K 65.64 KG/SEC .229 .613E+06 J/KG .165 M .0082 M/SEC .299	
(INFERRED ELEVATION	PERATURE MEA VAPOR TEMP) DZQF	SUREMENT LOC	ATION INFORMAT		(INFERRED ELEVATION	ERATURE ME VAPOR TEMP DZQF	IV X	OCATION INFORMA	TION
(M) 1.232	(M) 1,159	(K) 775.0 .725	500		(M)	(M) 1.067	(K) 742.0 .69	97 .508	
ELEVATION (M)	RATURE MEAS TEMP (K)	REMENT LOCA	HEAT FLUX W/M**2	ON HEAT LOSS W/M**2	WALL TEMPE ELEVATION (M)	RATURE MEA TEMP (K)	SUREMENT LO	HEAT FLUX W/M**2	HEAT LOSS W/M**2
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	635.9 689.4 546.6 735.3 842.8 857.3 856.7 920.4 924.5 953.0 961.5 989.0 987.8 996.1 1997.6 1019.4 1044.2	. 252 . 258 . 275 . 294 . 308 . 321 . 392 . 425 . 457 . 488 . 519 . 549 . 577 . 604 . 631 . 658	1.67E+05 2.01E+05 1.78E+05 3.31E+05 2.41E+05 2.09E+05 1.84E+05 1.65E+05 1.61E+05 1.56E+05 1.56E+05 1.48E+05 1.41E+05 1.36E+05 1.36E+05 1.36E+05 1.38E+05	6.76E+03	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	601.6 628.6 584.0 601.3 601.6 605.7 703.5 883.9 914.5 928.0 957.3 961.3 974.5 979.7 1002.1 1025.7	.247 .252 .261 .272 .285 .299 .369	1.46E+05 1.31E+05 1.49E+05 1.74E+05 2.43E+05 1.92E+05 1.63E+05 1.56E+05 1.56E+05 1.50E+05 1.49E+05 1.41E+05 1.36E+05	5.43£+03
1.181	996.1 1017.9 957.2 579.6	.713	1.15E+05 1.10E+05 2.95E+05 1.27E+05	6.76E+03 5.19E+03	1.181 1.244 1.283 1.321	991.0 1014.7 651.1 571.5	.684 .703 .726 .748	1.18E+05 1.18E+05 3.36E+05	7.06E+03

POINT SERIAL NO. 1193.051 (TIME= 45.50 SEC) POINT SERIAL NO. 1193.061 (TIME= 58.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) 15.68 MPA 15.73 MPA 615.8 K LOOP PRESSURE (PE-3) 615.9 K LOOP PRESSURE (PE-3) FCV TEMPERATURE [TE-FCV-1T] FCV TEMPERATURE(TE-FCV-11) LHP INLET ENTHALPY 1.614E+06 J/KG LHP INLET ENTHALPY 1.613E+06 J/KG TEST SECTION: TEST SECTION: 7.02 MPA PRESSURE 7.04 MPA PRESSURE SAI TEMP 559.30 K 559.12 K SAT TEMP 65.25 KG/SEC-M**2 65.61 KG/SEC-M**2 MASS FLUX MASS FLUX 1.613E 06 J/KG INLET QUALITY INLET QUALITY INLET ENTHALPY INLET ENTHALPY 1.614E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .330 M ELEVATION .222 M VELOCITY .0083 M/SEC .0082 M/SEC VELOCITY .311 . 349 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) TV ELEVATION DZQF ELEVATION DZQF (26) (M) {K} (M) (K) EM3 1.232 .902 668.0 .672 .539 1,232 1,009 730.0 .674 .499 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION XE HEAT FLUX HEAT FLUX HEAT LOSS TEMP HEAT LOSS ELEVATION TEMP XE ELEVATION W/M**2 W/M**2 W/M##2 W/M##2 {M} (K) [H) (K) .233 .013 577.2 .233 1.21E+05 .013 589.1 1.27E+05 586.3 1.25E+05 .051 .245 .246 1.35E+05 .051 608.0 .249 -250 .063 1.23E+05 569.1 1.18E+05 .063 575.5 1.20E+05 .259 1.28£+05 .089 573.6 .257 .089 584.4 .267 .114 571.2 .265 1.19E+05 . 13% 579.9 1.27£+05 1.18f+05 1.20E+05 .275 1.316+05 . 140 566.9 .273 . 190 575.8 1.75£+05 1.68£+05 1.46£+05 .281 569.6 . 165 .285 . 165 587.1 . 343 1.95E+05 .317 686.4 .317 839.6 . 353 . 394 .378 . 384 825.3 1.60E+05 . 394 859.3 852.8 .408 1.43E+05 .470 1.48E+05 470 889.5 .412 1.40E+05 874.8 .441 .546 . 436 906.5 1.45£+05 .546 1.40E+05 .622 .464 903.5 1.44E+05 .622 936.9 -470 1.40E+05 - 598 .491 1.37E+05 1.35E+05 916.6 .698 944.6 .498 1.39E+05 1.35E+05 .775 .525 .775 932.5 .518 958.8 946.3 -851 .851 .545 1.33E+05 967.5 .552 .927 968.2 .571 1.31E+05 1.36E+05 .927 989.3 .579 .597 -605 1,003 992.6 1.31E+05 1.003 1012.6 1.35E+05 -630 3.87E+03 1.079 962.6 1.196+05 5.14E+03 1.079 953.0 .622 1.20E+05 972.2 1.18E+05 7.36E+03 1.181 .653 1.18E+05 7.74E+03 1.181 984.9 -661 3.63E+05 1.21E+05 -693 1.244 883.1 1008.4 -681 1,244 572.1 .717 .694 1.52E+05 1.283 1.24E+05 1.283 600.7 1.321 566.4 .729 1.17E+05 1.321 568.6 .708 1.19E+05

566.2

INEL POST-CHF EXPERIMENT NO. 193

POINT SERIAL NO. 1193.071 (TIME= 66.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 15.66 MPA FCV TEMPERATURE(TE-FCV-11) 616.0 K LHP INLET ENTHALPY 1.614E+06 J/KG TEST SECTION: PRESSURE 7.05 MPA SAT TEMP 559.40 K MASS FLUX 65.16 KG/SEC-M**2 INLET QUALITY .229 INLET ENTHALPY 1.614E+06 J/KG QUENCH FRONT: ELEVATION .399 M VELOCITY .0088 M/SEC .373 QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .833 630.0 .669 .570 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS M/Mas2 {M} [K] W/M**2 .013 574.1 .233 1.20E+05 .051 580.9 .245 1.22E+05 .063 567.8 .249 1.19E+05 .089 571.4 .257 1.19E+05 .114 .265 569.6 1.18E+05 . 140 565.8 .273 1.17E+05 . 165 567.2 .280 1.19E+05 597.8 .317 . 333 1.48E+05 .394 699.9 .371 2.31E+05 .470 837.7 .408 1.42E+05 .546 861.7 .436 1.40E+05 .622 891.0 .464 1,42E+05 .698 905.3 .492 1.39E+05 . 775 922.6 .519 1.35E+05 .851 937.9 .545 1.31E+05 .927 960.6 .571 1.33E+05 1,003 985.7 .598 1.31E+05 1.079 950.1 .622 1.20E+05 4.50E+03 1.181 967.2 .654 1.17E+05 7.94E+03 1.244 685.5 .683 2.31E+05 .700 1.283 568.0 1.20E+05

.712

1,17E+05

INEL POST-CHE EXPERIMENT NO. 19

	INEL POS	T-CHE EXP	ERIMENT NO.	197	
POINT SERIA	AL NO. 11	97.031	(TIME= 130.5	0 SEC)	
(INFERRED V	APOR TEMP	}			
LOOP PRESSI	JRE (PE-3)		16.33 M	PA	
FCV TEMPERA	ATURE (TE-F	CV-1T)	585.2 K		
LHP INLET 6	NTHALPY		1.405E+06 J	/KG	
TEST SECTIO	ON:				
PRESSI	IRE		7.00 M	PA	
SAT II	MP		558.89 K		
MASS I	LUX		28.93 KI	G/SEC-M**2	
INLET	QUALITY		.091		
INLET	ENTHALPY		1.405E+06 J	/KG	
QUENCH FROM	H:				
ELEVAT			.546 M		
VELOCI	IY		.0098 M	/SEC	
QUAL 11	Y		. 380		
NET LHP POV	VER TO FLU	10	0.0 W		
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION IN	FORMATION	
(INFERRED V	APOR TEMP)			
ELEVATION	DZQF	TV	XE XA		
(M)	(M)	(K)			
1.232	.686	825.0	.816 .542		
WALL TEMOCH	ATHRE MEA	CHDEMENT	OCATION INFO	DDMAT LON	
ELEVATION	TEMP	XE	HEAT F	The state of the s	
(M)	(K)	N.E.	W/M**		
(11)	101		W/15	W/M2	
.013	579.3	.096	7.13E+0	04	
.051	587.1	.113	7.42E+0	14	
.063	572.2	.118	6.938+0	34	
.089	578.2	. 128	7.03E+0)4	
.114	574.2	. 139	6.95E+0	34	
. 140	567.3	. 149	6.84E+0		
. 165	568.1	. 159	6.94E+0	34	
. 317	595.4	. 224	7.58E+0	04	
. 394	625.0	.263			
.470	676.6	. 318	1.45E+(
.546	756.0	. 380	1.31E+0		
.622	834.2	.441	1.41E+(
.698	912.1	.501			
.775	950.4	.557	1.24E+(35	
.851	984.3	.610	1.15E+0)5	
.927	1018.3	.660	1.09E+0		
1.003	1050.7	.707	1.04E+()5	
1.079	1048.5	.750	8.69E+0		
1.143	1046.8	. 781	8.39E+0	3.52E+01	
1.181	996.1	. 799	7.11E+6	3.37E+03	
1.244	1008.4	.824	6.43E+(
1 202	Den n	927	E 77540	N.C.	

.837

.850

1.283

1.321

980.0

993.7

5.77E+04

5.36E+04

			100. 121			THE L. P. LOS	H-GHE EAF	Enterent no.	131	
POINT SERIA	AL NO. 11	197.041 (T	IME= 138.50 SEC) -M**2	POINT SERIA	M. NO. 11	97.050	(TIME= 146.	50 SEC	1
LOOP PRESSI	URE (PE - 3)		16 3h MPA		LOOP PRESSU	IDE (DE - 3)		16 34	MPA	
FCV TEMPER	ATURE I TE-I	CV-11)	585 3 K		FOV TEMPERA	TUBELTE-ST	CV-1T1	585 2	Bra.	
THE INLET	ENTHAL PY		805F+06 1/WC		THE INVETO	NTHAL PY	CA-111	1 0055406	LINE	
TEST SECTION	DN:		.4021-00 3780		TEST SECTIO	MITTELL F		1.4036+00	3/80	
PRESSI	URE		7 00 MPA		PDE SCHOOL	INC.		7 00	MPA	
SAT TI	EMP		558.92 K		SAT IF	MP		558 94	K	
MASS I	FLUX		29 16 KG/SEC	-M##2	MASS F	LIEV		20.63	KC/SEC	-M##2
INLET	QUALITY		.092		INLET	QUALITY.		091	NO) SEC	
INLET	ENTHALPY		.405E+06 J/KG		INLET	ENTHAL PY		1.405E+06	1786	
QUENCH FROM	NT:				QUENCH FROM	IT:		1.3025.00	0710	
ELEVA	TION		.629 M		FIFVAT	LON		720	M	
VELOC	IIA		.0109 M/SEC		VELOCI	TY		0117	M/SEC	
QUALIT	IY		. 391		QUALIT	Y		.427		
NET LHP PO	HER TO FLU	IID .	0.0 W		NET LHP POW	ER TO FLU	10	0.0	W	
VAPOR *EMPI	ERATURE ME	ASUREMENT LO	OCATION INFORMA	TION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION I	NFORMA	TION
(INFERRED)	VAPOR TEMP	1			ELEVATION	DZQF	IV	XE XA		
(M)	DZQF (M)	TV X	E XA	TION	(M)	(M)	(K)			
* ***	500	707 0 7	87 .542	1.11E+01 3.03E+03	1.232	.511	744.2	.757 .551		
1.636	.603	192.0 .11	87 .342		WALL TEMPER	ATURE MEA	SURFMENT I	OCATION IN	FORMAT	ION
WALL TEMPER	RATURE MEA	SUREMENT LO	CATION INFORMAT	ION	ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	(M)	(K)	-	W/M*	*2	W/M**2
(M)	(K)		W/M**2	W/M**2	****			346.51	-	
					.013	572.9	.096	6.948	+04	
.013	575.5	.097	7.02E+04		.051	577.0	.112	7.068	+04	
.051	581.0	.112	7.20E+04		.063	568.7	.117	6.868	+04	
.063	570.2	.118	6-88E+04		.089	573.2	.127	6.91E	+04	
.089	575.3	. 128	6.948+04		.114	570.2	.137	6.88E	+04	
. 114	571.9	. 138	6.90E+04		, 140	565.2	. 147	6.78E	+04	
. 140	566.0	. 148	6.81E+04		. 165	564.8	. 157	6.83E	+04	
. 165	566.0	. 158	6.86E+04		. 317	584.0	.218	7.13E	+04	
.317	588.6	.220	7.24E+04		. 394	603.5	.249	7.33E	+04	
. 394	610.5	.253	7.56E+04		.470	605.2	.282	7.668	+04	
.470	619.2	.289	8.78E+04		. 546	627.2	.317	8.31E	+04	
.546	667.0	. 333	1.11E+05		.622	635.0	. 358	1.028	+05	
.622	718.3	. 385	1.26E+05		.698	687.5	.410	1.416	+05	
.698	826.9	.448	1.56£+05		.775	823.7	.468	1.23E	+05	
.775	899.9	-510	1.271+05		.851	893.2	.521	1.216	+05	
.851	941.0	.565	1.216+05		.927	934.6	.574	1,228	+05	
.927	979.8	.618	1.17E+05		1.003	972.6	.628	1.23E	+05	
1.003	1016.7	.668	1.13E+05		1.079	1003.4	.677	1.04E	+05	
1.079	1029.9	-714	9.418+04		1.143	1002.1	.714	1.05E	+05	
1.143	1029.1	. 749	9.41E+04	1.11E+01	1.181	968.0	. 736	9.15E	+04	2.96E+03
1.181	986.2	- 768	8.081+04	3.03E+03	1.244	985.5	. 769	9.00E	+()4	
1.244	1002.6	. 797	7.661+04		1.283	977.7	. 787	8.03E	+04	
1.283	983.3	-813	7.05E+04		1.321	1001.8	.804	7.20E	+04	
			A. D. T. S. A. (19)							

POINT SERIAL NO. 1197.060 (TIME: 152.50 SEC) POINT SERIAL NO. 1197.070 (TIME= 165.50 SEC) 16.36 MPA 100P PRESSURE(PE-3) 16.37 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-11) 585.0 K FCV TEMPERATURE (TE-FCV-11) 585.1 K 1.404E+06 J/KG 1.405E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 7.00 MPA PRESSURE 7.00 MPA 558.94 K SAT TEMP 558.93 K SAT TEMP 29.47 KG/SEC-M**2 29.55 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .091 INLET QUALITY .091 INLET ENTHALPY 1.405E+06 J/KG 'NLET ENTHALPY 1.404E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .770 M ELEVATION .862 M VELOCITY .0071 M/SEC VELOCITY .0072 M/SEC .440 QUALITY .465 QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION IN ORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF TV XE XA ELEVATION DZQF TV XE XA ELEVATION (M) (B) {K} (M) (M) (K) 1.232 .462 727.3 .731 .543 1.232 .369 670.4 .688 .550 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS TEMP XE W/M##2 M/M**2 (M) (K) W/M**2 W/M**2 (16) (K) .013 571.5 .096 6.91E+04 .013 569.2 .096 6.86E+04 .111 .111 7.00E+04 .051 571.5 6.90E+04 .051 574.7 6.84E+04 6.82E+04 .063 567.9 .116 .063 566.5 .116 .089 . 126 .089 572.0 .126 6.88E+04 570.1 6.85E+04 .136 .114 .116 569.1 6-87E+04 567.4 . 136 6.84E+04 . 140 564.8 .146 6.79E+04 . 140 564.0 . 146 6.78E+04 6.79E+04 .165 564.1 . 156 6.81E+04 . 165 563.1 . 156 .216 .317 6.97E+04 .317 581.3 .217 7.06E+04 576.9 .248 . 394 .394 599.6 7.23E+04 592.9 .247 7.12E+04 .279 470 599.5 7.40E+04 .470 591.1 .279 7.18£+04 .313 7.41E+04 -546 617.9 7.79E+04 .546 604.8 .311 . 347 -622 . 343 589.4 7.29E+04 .622 603.2 8.24E+04 .392 664.1 .698 619.4 .376 7.94E+04 698 1.22 E+05 .443 8.87E+04 .775 757.0 1.13E+05 .775 641.9 .413 678.9 1.15E+05 .851 .458 .851 855.9 .494 1.21E+05 1.20E+05 .927 828.3 .508 1.16E+05 .927 900.0 .547 1.24E+05 1.003 866.0 .559 1.19E+05 1,003 937.9 -600 .650 .606 1.05E+05 1.079 931.8 1.03E+05 1.079 980.8 1.143 924.0 -645 1.09E+05 1.143 978.6 .688 1.07E+05 .710 1.181 907.9 8.94E+04 9.53E+030 950.2 8.96E+04 7.03E+03 .667 1,181 1.244 . 700 9.42E+04 969.0 . 743 9.18E+04 930.7 1.244 .762 1.283 961.0 .719 7.72E+04 971.4 7.91E+04 1.283 1.321 1000.4 .778 7.13E+04 1.321 999.0 . 735 7.10E+04

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EXPERIMENT NO.	(TIME= 185.50	16.37 MP/ 585.5 K 1.407E+06 J/)	7.00 MP) 558.91 K 29.17 KG,	1, 407£+06 J/1 1, 407£+06 J/1 1, 407£+06 J/1 1, 407£+06 J/1	XE XA	985. 659.	LOCATION INFOR	6.896+04												7.916+04
INEL POST-CHF EXE	POINT SERIAL NO. 1197.090	LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-11) LHP INLET ENTHALPY TEST SECTION:	PRESSURE SAT TEMP MASS FLUX INF T DIALITY	NO PULL	VAPOR TEMPERATURE MEASUREMENT ELEVATION DZQF IV (M) (M)	1.232 .243 607.2	MALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE (M) (K)		5,68.0		572.6	582.8	591.7	~	618.5	3 695.0	865.4		177.6	1.321 984.1 .714
INEL POST-CHF EXPERIMENT NO. 197	POINT SERIAL NO. 1197.081 (TIME: 126.50 SEC)	LOOP PRESSURE[FE-3] LOOP PRESSURE[FE-3] LOOF FRESSURE[FE-3] FCV IEMPERATURE[TE-FCV-11] S05.3 K LNP INLET ENTHALPY TEST SECTION:	877	1,406	VAPOR TEMPERATURE MEASURERS VI LOCATION INFORMATION (INFERED VAPOR TEMP) TV XE XA	(M) (M) (N) (N) (N) (N) (N) (N) (N) (N) (N) (N	LI TEMPERATURE MEASUREMENT LOCATION TEMP XE WELLOW TEMP XE WE WE WAS THE WEATHER THE WEATHER THE WEATHER WE	567.9 6.88E+04	505.6 .117 6.	. 114 566.3 . 137 6.87 6.90 . 114 566.3 . 137 6.97	562.5 .157 6.	574.2	586.0 .281 7.	583.4 .345 7.	623.4 . 4111	705.0 .492 1.	800.5 .541 1.	143 877.0	181 869.8 .647 9.	947.5 .715 8.4

POINT SERIAL NO. 1197, 100 (TIME= 195, 50 SEC) POINT SERIAL NO. 1198.010 (TIME= 37.50 SEC) LOOP PRESSURE(PE-3) 16.46 MPA LOOP PRESSURE(PE-3) 16.29 MPA FCV TEMPERATURE(1E-FCV-11) 585.7 K FCV TEMPERATURE (TE-FCV-II) 585.4 K LHP INLET ENTHALPY 1.407E+06 J/KG LHP INLET ENTHALPY 1.406E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 7.00 MPA PRESSURE 7,00 MPA SAT TEMP 558.92 K SAT TEMP 558.93 K MASS FLUX 29.10 KG/SEC-M**2 MASS FLUX 39.51 KG/SEC-M**2 INLET QUALITY .093 INLET QUALITY .092 INLET ENTHALPY 1.407E+06 J/KG INLET ENTHALPY 1.406E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION 1.055 M ELEVATION .097 M VELOCITY .0057 M/SEC VELOCITY -0090 M/SEC -534 .171 QUALITY. QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION TV ELEVATION DZQF TV XE XA ELEVATION 0.7QF XE XA (8) {M} (M3 (M) [M] (K) 1.232 . 188 590.3 .654 .603 1,232 1.135 871.7 .930 .589 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP ELEVATION HEAT FLUX HEAT LOSS XE ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/H**2 W/M**2 (R) (K) (H) (K) W/M##2 W/M**2 .013 566.3 -098 6.87E+0% .013 650.6 . 100 1.51E+05 .113 6.885+04 .051 .051 567.8 714.8 . 129 2.03E+05 .063 063 564.5 .118 6.85E+04 629.5 . 140 2.03E+05 .128 .089 . 163 089 567.3 6.88E+04 749.8 2.22E+05 .139 .114 . 114 565.0 6.865+04 838.3 . 188 2.32E+05 . 140 6.83E+04 563.0 . 149 - 140 856.3 .213 2.321+05 561.8 . 165 . 165 . 159 6.84E+04 836.3 .238 2.26£*05 .317 571.2 .220 6.93E+04 .317 .376 939.7 1.97E+05 .439 .394 582.5 .251 7.04E+04 . 394 971.1 1.89E+05 .282 7.02E+04 .420 580.1 .470 1005.5 -500 1.87E+05 -546 587.4 .313 7.13E+04 .546 1027.4 -559 1.70E+05 .622 577.2 . 344 7.02E+04 -622 1053.0 .614 1.68E+05 .698 593.1 .376 7.24E+04 .698 1062.9 .665 1.48E+05 -775 606.5 -408 7.40E+04 .775 1073.4 .712 1.38E+05 7.39E+0h -851 851 610.7 441 1075.5 . 756 1.30E+05 .797 .927 617.5 .474 7.78E+04 .927 1089.6 1.22E+05 1,003 611.0 -512 9.26E+09 1.003 1109.0 .837 1.24E+05 -553 842.5 9.48E+04 1.079 1.079 1032.7 .873 9.76E+04 1.05E+03 -591 1.143 822.9 1, 10E+05 1.143 1070.7 .900 9.91E+04 .915 1.181 826.1 -618 1.28E+05 1.181 1023.3 8.76E+04 7.48E+03 -662 1.299 700.4 1.11E+05 1.245 1060.6 .938 8.25E+04 .683 919.6 7.83E+04 1,283 1.283 1014.3 -952 9.28E+04 .700 7.63E+04 974.9 1,321 1.321 1010.3

INEL POST-CHE EXPERIMENT NO. 198

.967

8.88E+04

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			W**2		HON		ON HEAT LOSS W/M**2		1.58E+03 2.01E+03 9.11E+03
RIMENI NO. 196	TIME = 50.50 SEC)	16.40 MPA 585.2 K 1.405E*06 J/KG	7.00 MPA 558.95 K 40.21 KG/SEC- .091 1.405£*06 J/KG	.241 M .0133 M/SEC .231	LOCATION INFORMALINE XE XA	575. 619	OCATION INFORMATI HEAT FLUX M/M**2	1,066 ±05 1,156 ±05 1,116 ±05 1,166 ±05 1,726 ±05 1,596 ±05 1,596 ±05 1,586 ±05 1,586 ±05 1,486 ±05	1, 10£ +05 1, 12£ +05 9,88£ +04 1, 09£ +05 1, 13£ +05 1, 11£ +05
-CHI EAFT	8.031 (34-113			MEASUREMENT MP3 IV (K)	775.0	UREMENT L	130 130 130 130 130 130 130 130 130 130	755 784 801 847 847
INEL POSI	IAL NO. 1198.	FRESSURE (PE-3) EMPERATURE (TE-FC NLET ENTHALPY	PRESSURE SAI IEMP MASS FLUK INLET QUALITY INLET ENTHALPY	MT: 1110N 117 177 WER 10 ftut0	VAPOR 1EMP) DZQF (M)	166.	RATURE MEAS TEMP (K)	6.25.7 5.85.6 5.99.9 5.99.9 6.19.4 8.64.8 8.64.8 9.90.6 9.90.6 9.90.6 9.90.6 10.00.8 10.01.3	1049.4 1006.4 1006.4 996.8 1002.5
	POINT SERI	COP PRESSURE PE FCV TEMPERATURE LHP INLET ENTHAL	PRESSI SAI II MASS I INLEI	GOLMAN PROPERTY FLEVATION VELOCITY QUALITY NET LIIP POWER	VAPOR IEMPERATURE) (INFERSED VAPOR TER ELEVATION DZQF (M)	1.232	WALL TEMPE ELEVATION (N)	013 063 063 063 063 114 114 115 115 117 117 1175 1175 1175	1.079 1.143 1.244 1.283 1.321
			Zaalfe		TiON		NEAL LOSS W/M**2	2.036+03	6, 15E+02
LINER I NO. 198	19KE - 45,50 SEC	16.39 MPA 585.3 K 1.405E+06 J/KG	7.00 MPA 558.92 K 40.11 KG/SEC. .092 1.405£*06 J/KG	.0129 M/SEC .0129 M/SEC .007	5	6 1	M/M	1. 146 ± 0.5 1. 147 ± 0.5 1. 143 ± 0.5 1. 144 ± 0.5 1.	1,09E+05 9,59E+08 1,01E+05 1,07E+05 9,82E+04
-CHP EXPERIME	1198.020 (1	17.)			SUREMENT 1 TV) (K)		XE X	151 151 151 151 151 151 151 151 151 151	. 902 . 902
INEL POST	NO.	FPRESSURE(FE-3) IEMPERATURE(TE-ECV- INLET ENTHALPY SCELEGO	BE NP LISK QSALITY ENTRALPY	CH PROME: ELEVATION VELOCITY QUALITY LIFP POWER TO FLUIT	5	1.072	IERP (R)	644,3 646,6 646,6 661,7 865,7 934,7 934,7 934,7 1016,3 1016,3 1061,8 1061,8 1061,8	00000
	POINT SERIAL	LOOP PRESSU FCV EMPERA LIMP INLET E	PRESSU SAT TE MASS F INLET	CELEVATI VELOCIT VELOCIT VET LIFP FOWE	A I I EMPE	1.636	8	1,019 1,019 1,019 1,019 1,019 1,019 1,019 1,019	1, 143 1, 161 1,244 1,321

POINT SERIAL NO. 1198.040 (TIME: 57.50 SEC) POINT SERIAL NO. 1198.050 (TIME= 61.50 SEC) LOOP PRESSURE(PE-3) 16.31 MPA 100P PRESSURE(PE-3) 16.33 MPA FCV TEMPERATURE(TE-FCV-1T) 585.3 K FCV TEMPERATURE (TE-FCV-11) 585.4 K LHP INLET ENTHALPY 1.405E+06 J/KG LHP INLET ENTHALPY 1.406E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 7,00 MPA PRESSURE 7.00 MPA 558.94 K 558.96 K 40.55 KG/SEC-M**2 .092 SAT TEMP SAT TEMP MASS FLUX 40.43 KG/SEC-M**2 MASS FLUX INLET QUALITY INLET QUALITY INLET ENTHALPY 1.405E+06 J/KG INLET ENTHALPY 1.406E+06 J/KG QUENCH FROM: QUENCH FRONT: ELEVATION .335 M ELEVATION .393 M VELOCITY .0133 M/SEC VELOCITY .0155 M/SEC QUALITY .253 QUALITY .277 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF IV XE XA (M) [M] (K) (M) (M) (K) 1.232 .897 733.9 .758 .559 1.232 .839 719.0 .742 .557 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP ME HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) M/Mee> W/M**2 (M) (K) W/M##2 W/M**2 .013 .097 591.6 9.94E+04 .013 587.2 .097 9.74E+04 601.2 .113 .651 1.06£+05 .051 599.7 .113 1.03E+05 .119 .063 578.5 9.55E+04 .063 576.0 . 118 9.38£+04 9.898+04 .129 .089 587.6 .089 583.7 .128 9.62E+04 9.721+04 .139 .114 582.0 .114 9.47E+04 578.9 . 138 . 190 .150 573.6 . 140 9.72E+04 570.8 . 148 9.37E+04 - 165 578.1 . 165 . 160 1.04E+05 574.2 . 158 9.57E+04 .317 679.2 .242 1.52E+05 .317 .232 647.5 1.34E+05 .292 . 394 814.8 1.61E+05 . 394 698.8 .277 1.51E+05 1.66E+05 .343 .470 847.6 1.55E+05 .327 .470 824.2 -546 -390 887.5 1.43E+05 -546 865.2 .377 1.44E+05 -622 910.3 . 436 1.47E+05 .622 886.5 .422 1.44E+05 .698 945.7 .482 1.42E+05 .698 924.1 .467 1.40E+05 .775 967.8 .528 1.41E+05 .775 -512 946.6 1.39E+05 -571 .851 989.8 1.32E+05 .851 912.6 -555 1.32E+05 .613 .927 1012.5 1.30E+05 .927 995.9 .597 1.31E+05 1.003 1033.4 -654 1.29E+05 1.003 1017.8 .638 1.28E+05 1.079 996.0 .693 1.13E+05 2.48E+02 1.079 986.7 -676 1.13E+05 1.143 .723 1030.8 1.15E+05 2.59E+03 .707 1.143 1019.1 1.16E+05 3.34E+03 . 740 1,181 991.2 1.02E+05 .724 9.125+03 1.181 982.0 1.03E+05 8.12E+03 .769 1.294 1023.7 1.14E+05 .753 1.244 1011.7 1.13E+05 1.283 978.8 .787 1.16E+05 1.283 967.9 .771 1.18E+05 1.321 961.7 .811 1.78E+05 1.321 919.9 .796

INEL POST-CHF EXPERIMENT NO. 198

1.99E+05

						F195. F 100	ST. CHILL SING	Little Ho. 190	
POINT SERIA	AL NO. 11	98.060 (TIME= 65.50 SE	C)	POINT SERIA	L NO. 1	198.071	(TIME= 70.50 SE	c)
LOOP PRESC	MDE / DE . T.		16 17 MOV		LIMITAKED V	DELDE TEM		16 16 100	
ECH TEMPER	ATHRETTE F	COLUMN TO	10.37 M/A		LUCIP PRESSU	ME (PE-3)		16.34 MPA	
ICV TEMPERA	ATURE TE-F	CA-113	383.4 %		ICV TEMPERA	TURE [IE -	FCA-111	585.5 K	
THE INCE !	MINALPY		1.400E+00 J/KG		LHP INLET E	NIHALPY		1.407E+06 J/KG	
IEST SECTIO	J786.2		W 200 MOV		IEST SECTIO	N:			
SKE 226	JRKE.		7.00 MFA		PRESSU	KE		7.00 MPA	
SAT II	EMP.		338.96 K		SAT TE	MP		558.96 K	and the second
MASS I	LUX		40.53 KG/SE	-MC	MASS F	LUX		40.66 KG/SEG	C-M**5
INLET	QUALITY		.092		INLEI	QUALITY		.093	
INLEI	ENIHALPY		1.406£ +06 J/KG		INLET	ENTHALPY		1.407E+06 J/KG	
GRENCH FROM	91:		A 100 May 100		QUENCH FRON	14			
ELEVAI	FIGN		.453 M		ELEVAI	ION		.519 M	
VELOCI	11.5		.0142 M/SEC		VELOC1	1.5		.0100 M/SEC	
QUALIT	l A		. 302		QUALIT	Y		. 328	
NET LHP PON	VER TO FILE	10	0.0 W		NET LIP POW	ER TO FLI	110	0.0 W	
VAPOR TEMPE	DZQF	ASUREMENT	LOCATION INFORMU	C-M**2 ATION HEAT LOSS W/M**2	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION INFORMA	ATION
(M)	(8)	£K3			FLEVATION	DZOF	TV	XF XA	
4443	2112	4.00			(M)	(M)	483	nr. nn	
1 232	770	712 8	731 553		4117	first.	(2)		
11500		7.75.AM			1 232	712	600 O	711 662	
MALL TEMPER	PATHOF MEA	SURFMENT I	OCATION INFORMAT	LON	1.636	2.5.5.3	030.0	. 111 . 223	
FIFVATION	TEMP	XE.	HEAT FLUX	HEAT LOSS W/M**2	WALL TEMPER	ATHRE MEA	SUBEMENT	DOATION INCOMM	LOW
(H)	ERT	A.L.	W/M**2	W/M**2	FIFVATION	TEMP	SUNEMENT	WEST FLUX	HEAT DEC
fres.	5 5		M2111 E	my to 2	(M)	683	N.E.	H/MARS	HEAT FOSS
013	581.7	097	9 587+05		4.75	100		W/Fiz5	M/19-112
051	507.8	113	1 005+05		013	580 1	000	O BETADL	
063	5.7% 1	118	9 295+08		051	588.0	113	9.431.704	
080	580 8	128	9 b6F+0b		063	572.7	.113	9.771.404	
116	576 6	120	0 305+00		.003	572.3	120	9.221+04	
1114	5/0.0	100	9.346+04		.009	210.1	, 128	9.34E+04	
. 190	509.1	. 140	9.225.04		.114	2/4.5	-158	9-26E+04	
. 102	211.0	.131	9.381.404		. 140	267.8	. 147	9.151+04	
. 311	604.3	266	1.166,405		.160	209.3	- 157	9.27E+04	
. 194	625.6	.205	1.418+05		.317	593.3	.218	9.96E+04	
.470	700.1	. 313	1.021.405		. 394	0:1.1	.252	1.13E+05	
. 546	835.9	. 354	1.601.405		.470	5/15.3	. 294	1.55£+05	
.622	864.1	.412	1.38E*G5		2.46	805.9	. 346	1.715+65	
. 698	903.1	.456	1.3/1+05		,622	E 19 d	. 396	1.431 05	
.775	926.5	. 499	1.35E+05		,693	879.0	340	1.335+05	
-851	955.1	.541	1.31E+05		.775	904.2	.482	1.31E+05	
-927	978.7	. 583	1.321+05		.851	934.5	.523	1.29E+05	
1.003	1000.9	. 625	1.31E+05		.927	957.8	.564	1.29E+05	
1.079	976.8	.664	1.15£+05		1,003	980.3	.605	1.29E+05	
1.143	1006.1	. 695	1.19E+05	2.49E+03	1.079	964.1	.643	1, 15E+05	
1,181	972.1	.713	1.06£+05	7.29E+03	1.143	990.0	.674	1.18E+05	2.83£+03
1.244	999.0	.742	1.16E+05		1,181	959.5	.692	1.05£+05	6.762+03
1.283	951.9	.763	1.51E+05		1.244	981.8	722	1 19F+05	0.700.03
1.321	856.1	.794	9.585+04 1.00E+05 9.29E+04 9.46E+04 9.34E+04 9.34E+04 9.32E+04 1.16E+05 1.62E+05 1.62E+05 1.36E+05 1.37E+05 1.35E+05 1.31E+05 1.31E+05 1.31E+05 1.15E+05 1.15E+05 1.16E+05 1.16E+05 1.16E+05 1.16E+05 1.16E+05 1.16E+05 1.16E+05 1.16E+05 1.51E+05 2.39E+05	2.49E+03 7.29E+03	1.283	896.7	700	2 295+05	
					1 321	783 3	785	2 256+05	
					1,261	103.3	. 103	2,250,05	

POINT SERIAL NO. 1198.081 (TIME= 76.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.36 MPA FCV TEMPERATURE (TE-FCV-1T) 585.6 K LHP INLET ENTHALPY 1.407E+06 J/KG TEST SECTION: PRESSURE 7.00 MPA SAT TEMP 558.93 K MASS FLUX 40.53 KG/SEC-M**2 INLET QUALITY .093 INLET ENTHALPY 1.407E+06 J/KG QUENCH FRONT: ELEVATION .579 M VELOCITY .0100 M/SEC QUALITY .351 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA (M) (M) (K) WAL ELE

.232	.653	668.0 .699	.561	
LL TEMPER	ATURE MEA	SUREMENT LOCA	TION INFORMAT	ION
EVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2.
.013	577.1	.098	9.34E+04	
.051	582.7	. 113	9.57E+04	
.063	570.6	.118	9.17E+04	
.089	575.6	. 128	9.26E+04	
.114	572.6	. 137	9.21E+04	
.140	566.6	. 147	9.11E+04	
. 165	567.4	. 157	9.20E+04	
. 317	587.4	.217	9.638+04	
. 394	607.4	.248	9.86E+04	
.470	622.1	.283	1:24E+05	
.546	659.6	. 329	1.62E+05	
.622	799.1	. 380	1.63E+05	
.698	852.5	.427	1.30E+05	
.775	879.7	.468	1.27E+05	
.851	910.6	.508	1.28E+05	
.927	933.7	.549	1.28E+05	
.003	957.3	-590	1.27E+05	
.079	948.7	.628	1.15E+05	
. 143	971.2	.659	1.19E+05	1.09E+03
. 181	944.6	.677	1.08E+05	5.86E+03
.244	952.8	.715	1.78E+05	100 000 000
.283	785.2	.749	2.51E+05	
.321	704.3	. 783	1.79E+05	

INEL POST-CHE EXPERIMENT NO. 198

POINT SERIAL NO. 1198.091 (INFERRED VAPOR TEMP)	(TIME= 84	.50 SEC)
LOOP PRESSURE(PE-3)	16.33	MPA
FCV TEMPERATURE (TE-FCV-11)	585.6	
LHP INLET ENTHALPY TEST SECTION:	1.408E+06	J/KG
PRESSURE	7.00	MPA
SAT TEMP	558.93	K
MASS FLUX	40.33	KG/SEC-M**2
INLET QUALITY	.093	
INLET ENTHALPY	1.408E+06	J/KG
QUENCH FRONT:		
ELEVATION	.643	М
VELOCITY	.0078	M/SEC
QUALITY	.372	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP)

ELEVATION DZQF TV XE XA
(M) (M) (K)

654.9

1.321

1.232 .589 640.0 .680 .570

	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	574.1	.098	9.28£+04	
.051	577.9	. 113	9.428+04	
.063	568.9	.118	9.15€+04	
.089	5/3.3	. 128	9.21E+04	
. 114	570.6	. 137	9.19E+04	
. 140	565.6	. 147	9.10E+04	
. 165	565.8	. 157	9.141+04	
. 317	582.0	.216	9.462+04	
. 394	600.4	.247	9.60E+04	
.470	603.1	.278	1.02E+05	
.546	625.6	. 313	1.15E+05	
.622	677.7	. 358	1.66E+05	
.698	806.8	.409	1.54E+05	
.775	850.9	.454	1.24E+05	
.851	880.7	.493	1.24E+05	
.927	904.8	.533	1.23E+05	
1.003	929.3	.572	1.22E+05	
1.079	929.6	.609	1.13E+05	
1.143	949.1	. 640	1.14E+05	1.55E+03
1.181	925.9	.657	1.04E+05	7.05E+03
1.244	848.6	.702	2.34E+05	
1.283	657.3	.736	1.92E+05	

.761

1.15E+05

POINT SERIAL NO. 1198.100 (TIME= 89.50 SEC) LOOP PRESSURE(PE-3) 16.37 MPA FCV TEMPERATURE (TE-FCV-1T) 585.6 K LHF INLET ENTHALPY 1.408E+06 J/KG TEST SECTION: PRESSURE 7.00 MPA SAT TEMP 558.96 K MASS FLUX 40.20 KG/SEC-M**2 INLET QUALITY .093 INLET ENTHALPY 1,408F+06 J/KC QUENCH TRONT: ELEVATION .692 M VITOCITY .0115 M/SEC CUALITY .397 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .540 623.3 .680 .586

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	573.0	.098	9.27E+04	
.051	576.2	.113	9.36E+04	
.063	568.3	.118	9.15E+04	
.089	572.4	. 128	9.21E+04	
. 114	569.8	. 137	9.17E+04	
. 140	565.2	. 147	9.10E+04	
. 165	565.2	. 157	9.148+04	
.317	580.1	.216	9.401+04	
. 394	597.9	.247	9.55£+04	
.470	598.3	.278	9.87E+04	
.546	617.6	.310	1.03E+05	
.622	645.3	. 351	1.50E+05	
.698	777.0	.401	1.67E+05	
.775	837.5	.450	1.34E+05	
.851	868.5	.491	1.23E+05	
.927	893.1	.530	1.23E+05	
1.003	918.3	.570	1.23E+05	
1.079	921.9	.607	1.12E+05	
1.143	940.4	.638	1.15E+05	1,46E+02
1.181	918.4	.655	1.05E+05	5.22E+03
1.244	767.9	.704	2.63E+05	
1.283	626.5	.736	1.34E+05	
1.321	648.9	. 755	1.01E+05	

	INEL POS	T-CHE EXP	ERIMENT NO	. 199	
POINT SERIA	AL NO. 11	99.010	(TIME= 74	.50 SEC)	
LOOP PRESSU	IRE(PE-3)		16.36	MPA	
FCV TEMPERA		CV-1T)	586.0		
LHP INLET E			1.409E+06		
TEST SECTIO			111020.00		
PRESSI			7.00	MPA	
SAT TE			558.95		
MASS I				KG/SEC-	M##5
	QUALITY		.094		
	ENTHALPY		1.409E+06		
QUENCH FROM					
ELEVAT			. 315	M	
VELGC				M/SEC	
QUALIT			.313		
NET LHP POP		IID	0.0		
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMAT	ION
ELEVATION			XE XA		
(M)	(M)	(K)			
2116	****	****			
1.232	.917	827.9	.918 .609		
WALL TEMPER	RATURE MEA	SUREMENT	LOCAT ON I	NEORMATI	ON
ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(m)	(K)		W/M	**2	W/M**2
.013	574.7				
.051	580.1				
.063	569.3				
.089	573.4	. 152			
.114	570.9	. 169			
. 140	566.5				
. 165	566.8				
.317	757.4				
. 394	878.9	. 375			
.470	907.0	.428			
. 546	938.4	,481			
.622	979.0				
.698	1005.3				
.775	1034.1				
.851	1060.1				
.927	1087.7				
1.003	1123.9	. 788			
T 0.70	107E h	926	1 6.6	CACLE	1 105 405

.836

. 874

.896

.932

.956

.981

1.54E+05

1.65E+05

1.39E+05

1.60E+05

1.70E+05

1.78E+05

1.18E+04

3.65E+03

2.66E+04

1075.4

1141.0

1065.0

1142.9

1115.6

1125.1

1.079

1.143

1.181

1.245

1.283

1.321

POINT SERIA	AL NO. 119	9.021 (11	ME= 92.50 SEC) -M**2	POINT SERIA	L NO. 11	99.031	TIME= 1	15.50 SEC	2)
(INFERRED)	VAPOR TEMP				(INFERRED V	APOR TEMP)			
LOOP PRESSU	JRE(PE-3)		16.40 MPA 585.9 K 409E+06 J/KG		LOOP PRESSU	RE(PE-3)		16.	38 MPA	
FCV TEMPERA	ATURE (TE-FO	CV-1T)	585.9 K		FCV TEMPERA	TURE (TE-F	CV-11)	586	. 1 K	
LHP INLET I	ENTHALPY	1.	409E+06 J/KG		LHP INLET E	NTHALPY		1.410E+	06 J/KG	
TEST SECTIO	ON:				TEST SECTIO	N:				
PRESSI	URE		7.00 MPA		PRESSU	RE		7.	OT MPA	
SAT TE	EMP		558.98 K		SAT TE	MP		559.	00 K	
MASS I	FLUX		45.02 KG/SEC	-M**2	MASS F	LUX		44.	80 KG/SEC	-M**2
INLET	QUALITY		.094		INLET	QUALITY		. 0	94	
INLET	ENTHAL PY	1.	409E+06 J/KG		INLET	ENTHALPY		1.410E+	06 J/KG	
QUENCH FROM	NT:				QUENCH FRON	T:		1.00		
FLEVA	LION		391 M		FLEVAT	LON		- tu	68 M	
VELOC	ITY		.0038 M/SEC		VELOCI	TY		.00	29 M/SEC	
QUAL L	IV		355		OUALLI	Y		4	04	
NET THE POL	JER TO FLUI	D	0.0 4		NET THE POW	ER TO FLU	10	- 11	OW	
HET EIN TW	nen io itoi		0.0 #		HET EIN TON	ER TO TEO	10		"	
			CATION INFORMA	TION	VAPOR TEMPE (INFERRED V ELEVATION	RATURE ME	ASUREMENT	LOCATIO	N INFORMA	ATION
(INFERRED)	VAPOR TEMP				(INFERRED V	APOR TEMP)			
ELEVATION	DZQF	TV XE	XA		ELEVATION	DZQF	17	XE X	A	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.841	830.0 .90	2 .596		1.232	.764	800.0	900 .6	15	
MALL TEMPER	DATHDE MEAS	SUDEMENT LOC	ATION INFORMAT	LON	WALL TEMPER	ATURE MEA	SUBTMENT	OCATION	INFORMAT	LLON
ELEVATION	TEMP	OUTENER! COC	HEAT FLUX	HEAT LOSS W/M**2	FLEVATION	TEMP	SUBERIERI	HE	AT FLUX	HEAT LOSS
(M)	(N)	V.C.	H/M##2	U/M##3	LELVATION	() (AL	1	/M##2	U/M##2
(14)	()		M/M2	W/PI2	(11)	(10)			/142	M/M 5
.013	569.9	. 102	1.70E+05 1.71E+05	9.78E+03 3.78E+03 2.10E+04	.013	567.1	.103	1:	69E+05	
.051	572.5	. 127	1.71E+05		.051	568.6	. 127	1.	69E+05	
.063	566.9	.135	1.70E+05		.063	565.3	. 135	1.	69E+05	
.089	569.8	. 151	1.70E+05 1.70E+05		.089	567.4	. 151	1.	69E+05	
. 114	567.7	. 167	1.70E+05 1.69E+05		. 114	565.7	. 168	1.	69E+05	
. 140	564.9	. 184	1.69E+05		, 140	564.0	. 184	1.	69E+05	
. 165	563.3	.200	1.70E+05		. 165	561.6	,200	1.	69E+05 71E+05 75E+05	
.317	587.7	. 300	1.78E+05		.317	575.6	.298	1.	71E+05	
. 394	728.8	.357	2.21E+05		. 394	598.9	. 347	1.	75E+05	
.470	887.2	.415	1.82E+05		.470	776.0	.405	2.	28E+05	
.546	921.8	.467	1.82E+05		546	901.9	. 464	1.	76E+05	
.622	964.6	.519	1.81E+05		622	987.2	.515	1	78E+05	
.698	993.8	.571	1.79E+05		698	974 8	.566	1	80E+05	
.775	1023.8	.622	1.77E+05		775	1011 6	.618	1	77E+05	
.851	1053.9	.672	1.75E+05		851	1005 2	668	1	75E+05	
.927	1083.2	.722	1.74E+05		027	1075 1	710	1.	755+05	
1.003	1118.5	.772	1.73E+05		1 003	1112 1	760		745405	
1.079	1081.8	.819	1.56E+05	0 705403	1.003	1000	, 109		6.7EAOS	1 005400
	11/11 3	.019	1 665+05	3 705403	1.079	11004.3	,616	1.	665+05	1.08E+04
1.143	1141.3 1068.8	.027	1.66E+05 1.41E+05	3.700403	1 191	1076	.633	1.	DOETOS	1.50E+03 2.40E+04
	1000.8	.019	1.416+05	2.101704	1.101	1076.6	.0//	1.	425405	2.40E+04
1.245	1141.0	.915	1.61E+05 1.71E+05		1.243	11133.5	.855 .877 .914 .938	1.	755+05	
1.283		.939			1.283	1112.6	.938	1.	15E+05	
1.321	1063.0	.968	2.33E+05		1.321	790.3	.971	2.	87E+05	

LOOP PRESSI FCV TEMPER/ LHP INLET I TEST SECTION PRESSI SAT TI MASS I	WRE(PE-3) ATURE(TE-FE ENTHALPY DN: URE EMP FLUX QUALITY ENTHALPY NT: TION ITY	(CV-1I) 1,	ME= 144.50 SEC 16.41 MPA 586.5 K 412E+06 J/KG 7.00 MPA 558.97 K 44.88 KG/SEC .096 412E+06 J/KG .544 M .0024 M/SEC .453 0.0 W		LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET	APOR TEMP RE(PE-3) TURE(TE-FO NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION IY) CV-11)	16. 586 1.415E+6 558. 44. 01.415E+6 .66.	32 MPA .9 K 06 J/KG 00 MPA 97 K 42 KG/SEC 98 06 J/KG	
			CATION INFORMA	TION	VAPOR TEMPE					TION
(INFERRED	VAPOR TEMP)		1104	(INFERRED V	APOR TEMP)			
ELEVATION (M)	DZQF (M)	TV XE	XA		ELEVATION (M)	DZQF (M)	TV (K)	XE X		
1,232	.688	780.0 .88	36 .619		1.232	.610	740.0	.903 .60	50	
.013 .051 .063 .089	TEMP (K) 565.2 566.5 564.1 565.7 564.1	. 104 .129 .137 .153 .169	ATION INFORMAT HEAT FLUX W/M**2 1.69E+05 1.69E+05 1.69E+05 1.69E+05 1.69E+05	HEAT LOSS W/M**2	WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114		XE . 106 . 130 . 138 . 155 . 171 . 187	HE/ W/ 1.6 1.6 1.6 1.6	AT FLUX /M**2 68E+05 68E+05 68E+05 69E+05 68E+05 68E+05	HEAT LOSS W/M**2
. 140 . 165 . 317 . 394 . 470 . 546 . 622 . 698 . 775 . 851 . 927 1.003 1.079 1.143 1.181 1.245 1.283 1.321	563.4 560.7 570.1 583.7 590.5 799.6 945.3 964.4 999.9 1033.6 1065.2 1103.2 1083.9 1140.8 1071.4 1124.7 872.1 597.0	. 180 . 202 . 299 . 348 . 398 . 455 . 511 . 559 . 608 . 657 . 707 . 756 . 803 . 841 . 863 . 900 . 935 . 972	1.69E+05 1.69E+05 1.70E+05 1.71E+05 1.76E+05 2.19E+05 1.67E+05 1.70E+05 1.72E+05 1.72E+05 1.72E+05 1.70E+05 1.70E+05 1.66E+05 1.42E+05 1.62E+05 3.29E+05 1.87E+05	9.63E+03 2.15E+03 2.49E+04	165 317 394 470 546 622 698 775 851 927 1.003 1.079 1.143 1.181 1.245 1.283	560.4 567.4 575.2 575.1 595.5 824.6 970.7 1000.7 1030.7 1064.2 1101.3 1089.0 1152.1 1069.7 864.4 631.9 562.1	.107 .204 .301 .350 .400 .449 .507 .564 .664 .713 .764 .852 .874 .967 .992	1.0	68E+05 69E+05 70E+05 74E+05 21E+05 72E+05 72E+05 71E+05 72E+05 74E+05 59E+05 69E+05 69E+05 69E+05 69E+05 69E+05 69E+05	9.14E+03 8.35E+02 2.53E+04

POINT SERIAL (INFERRED VI LOOP PRESSUI FCY TEMPERA LHP INLET ET TEST SECTION PRESSUI SAT ITE MASS FI INLET (INLET (INLET (QUENCH FRON) ELEVAT VELOCIT QUALITI NET LHP POWI	L NO. 1200 APOR TEMP) RE(PE-3) FURE(TE-FCV NTHALPY N: RE HP LUX QUALITY ENTHALPY I: FON TY Y ER TO FLUID	.011 (TIM -11) 1.3	16.42 MPA 573.8 K 41E+06 J/KG 7.00 MPA 558.91 K 28.50 KG/SEC .049 41E+06 J/KG .326 M .0083 M/SEC .281 0.0 W) -M**2	POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET UNLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	L NO. 12 APOR TEMP RE(PE-3) TURE(TE-F NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION TY Y ER TO FLU	(00.021 (1) (CV-11)	(TIME= 16,57,1.3418) 6,558,28, 1.3418-	97.50 SEC .33 MPA 3.9 K +06 J/KG .99 MPA .89 K .42 KG/SEC .49 HO .06 J/KG .393 M .110 M/SEC .319 .0.0 W	:-M**2
VAPOR TEMPER	RATURE MEAS	UREMENT LOC	ATION INFORMA	TION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATIO	ON INFORMA	TION
ELEVATION (M)	DZQF (M)	TV XE	XA	TION	ELEVATION (M)	DZQF (M)	(K)	XE)	CA	
1.232	.906 9	00.0 1.006	.619		1.232	.839	880.0	.978 .6	514	
WALL TEMPERA ELEVATION (M)	TEMP (K)		TION INFORMAT HEAT FLUX W/M**2	HEAT LOSS W/M##2	WALL TEMPER ELEVATION (M)	TEMP (K)	SUREMENT	HI	N INFORMAT EAT FLUX 4/M**2	HEAT LOS
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	594.0 609.3 581.1 591.5 584.8 576.2 581.7 734.5 806.6 878.9 952.2 991.9 1043.5 107.4 1135.3 1159.0	.087 .102 .117 .133 .150 .273 .342 .418 .497 .574 .646 .713 .774	1.00E+05 1.06E+05 9.64E+04 1.01E+05 9.96E+04 1.04E+05 1.29E+05 1.43E+05 1.60E+05 1.76E+05 1.78E+05 1.51E+05 1.31E+05 1.31E+05	3.00E+03 1.34E+03 9.42E+03	.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	589,6 602,4 578,4 587,2 581,3 572,7 575,3 691,3 738,2 826,1 900,5 958,3 1015,3 1088,2 1120,3 1147,0	.057 .079 .087 .101 .116 .131 .146 .257 .320 .390 .467 .543 .614 .679 .741	1. 9. 9. 9. 1. 1. 1. 1. 1.	82E+04 03E+05 48E+04 80E+04 64E+04 64E+04 13E+05 31E+05 47E+05 63E+05 75E+05 62E+05 49E+05 31E+05 23E+05 53E+05	
1.079 1.143 1.181 1.245 1.283 1.321	1096.1 1123.8 1059.7 1067.2 1021.3 1031.5	.932 .967 .987	9.62E+04 9.41E+04 7.98E+04 7.17E+04 7.00E+04 6.41E+04	3.00E+03 1.34E+03 9.42E+03	1.079 1.143 1.181 1.245 1.283 1.321	1090.7 1119.9 1058.0 1070.4 1029.3 1042.1	.901 .938 .958	9. 9. 8. 7. 7.	81E+04 59E+04 15E+04 63E+04 33E+04 72E+04	2.69E+03 1.59E+03 9.92E+03

POINT SERIAL NO. 1200.040 (TIME= 108.50 SEC) POINT SERIAL NO. 1200.030 (TIME= 105.50 SEC) 16.34 MPA LOOP PRESSURE (PE-3) 16.35 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 574.0 K 573.9 K 1.342E+06 J/KG 1.342E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 7.00 MPA PRESSURE 7.00 MPA SAT TEMP 558.94 K SAT TEMP 558.95 K MASS FLUX 28.37 KG/SEC-M**2 MASS FLUX 28.46 KG/SEC-M**2 INLET QUALITY .050 INLET QUALITY .049 INLET ENTHALPY 1.342E+06 J/KG INLET ENTHALPY 1.342E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .481 M ELEVATION .513 M VELOCITY .0094 M/SEC VELOCITY .0109 M/SEC QUALITY .381 QUALITY . 361 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF IV XE XA (M) (M) (M) (K) (M) (K) 1.232 .751 785.5 .937 .650 1.232 .719 842.5 .928 .605 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M**2 W/M**2 (M) (K) W/M##2 W/M##2 (M) (K) .057 9.41E+04 .013 582.6 .057 9.47E+04 .013 580.6 .051 588.2 .078 9.71E+04 .051 591.4 .078 9.82E+04 9.20E+04 .063 574.3 .086 9.24E+04 .063 573.2 .086 . 100 9.33E+04 .089 580.9 .100 9.39E+04 .089 579.2 .114 575.1 9.24E+04 . 114 576.4 .114 9.29E+04 . 114 . 140 .128 9.17E+04 568.0 9.11E+04 .140 568.8 .128 . 142 567.9 . 141 9.21E+04 . 165 569.1 9.29E+04 .165 .317 1.08E+05 .236 .233 630.9 1.14E+05 .317 611.9 1.21E+05 . 394 1.27E+05 . 394 673.2 .285 695.1 .290 . 343 670.3 1.37E+05 1.44E+05 .470 .470 725.2 . 352 .410 1.56E+05 1.61E+05 .546 815.2 .546 819.7 .421 1.56E+05 .622 .494 1.60E+05 .622 852.2 .481 883.7 1.49E+05 966.4 .563 1.47E+05 .098 948.4 .550 .698 1.42E+05 .629 994.1 .616 .775 1010.6 1.42E+05 .775 1.33E+05 .679 1040.7 .851 1054.2 .691 1.33E+05 .851 .738 1.28E+05 .750 1.27E+05 .927 1080.5 .927 1092.2 1.003 1.003 1115.7 . 794 1.21E+05 1125.2 .806 1.20E+05 6.24E+02 1.05E+05 1080.9 .856 1.03E+05 9.95E+02 1.079 1076.4 . 846 1.079 .885 1.02E+05 1,29E+03 1108.3 1.143 1112.4 .895 1.00E+05 1.30E+03 1.143 8.57E+04 8.75E+04 9.58E+03 9.44E+03 1,181 1051.9 .906 1054.3 .916 1.181 1.245 1074.9 .948 8.29E+04 1.245 1074.8 .939 8.52E+04 .958 8.11E+04 7.78E+04 1.283 1046.0 1.283 1042.6 .966 1064.9 .976 7.66E+04 1.321 1.321 1060.0 .983 7.27E+04

POINT SERIAL NO. 1200.050 (TIME= 118.50 SEC)

```
LOOP PRESSURE (PE-3)
                                   16.35 MPA
FCV TEMPERATURE (TE-FCV-11)
                                   574.2 K
LHP INLET ENTHALPY
                               1.343E+06 J/KG
TEST SECTION:
     PRESSURE
                                    7.00 MPA
     SAT TEMP
                                  558.94 K
     MASS FLUX
                                   28.27 KG/SEC-M**2
     INLET QUALITY
                                    .050
     INLET ENTHALPY
                               1.343E+06 J/KG
QUENCH FRONT:
     ELEVATION
                                    .601 M
     VELOCITY
                                   .0071 M/SEC
     QUALITY
                                    .428
NET LHP POWER TO FLUID
                                     0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
            DZQF
                      TV
                               XE XA
 (M)
             (M)
                      (K)
1,232
             .631
                     800.6 .898 .613
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                                    HEAT FLUX
                           XE
                                                   HEAT LOSS
  (M)
               (K)
                                     W/M**2
                                                    W/M**2
  .013
              575.8
                          .057
                                    9.22E+04
  .051
                          .079
              580.7
                                    9.38E+04
  .063
              570.6
                          .086
                                    9.08E+04
              575.4
                          .099
  .089
                                    9.15E+04
              572.0
  . 114
                          .113
                                    9.11E+04
  . 140
              566.4
                          .127
                                    9.01E+04
                         . 141
  . 165
              565.4
                                    9.05E+04
  .317
              587.9
                          .225
                                    9.49E+04
  . 394
              615.5
                          .271
                                    1.04E+05
  .470
              650.7
                          . 322
                                    1.21E+05
  .546
              711.7
                          .382
                                    1.40E+05
  .622
              781.2
                          .445
                                    1.40E+05
  .698
              873.9
                          .513
                                    1.55E+05
  .775
              942.6
                          .580
                                    1.39E+05
  .851
              997.0
                          .641
                                    1.31E+05
                         .701
  .927
             1040.6
                                    1.30E+05
 1.003
             1082.2
                          . 759
                                    1.24E+05
 1.079
             1059.7
                          .811
                                    1.07E+05
 1.143
             1091.3
                          .853
                                    1.09E+05
 1.181
             1040.2
                          .875
                                    9.16E+04
                                                   1.02E+04
 1.245
             1069.2
                          .911
                                    9.40E+04
 1.283
             1050.0
                          .932
                                    9.01E+04
 1,321
             1073.0
                          .952
                                    8.61E+04
```

INEL POST-CHE EXPERIMENT NO. 200

	AL NO. 1		(TIME=	132	.50 SEC)
	VAPOR TEM				
LOOP PRESS	SURE(PE-3)		16	. 35	MPA
FCV TEMPER	RATURE (TE-	FCV-1T)	57	4.4	K
	ENTHALPY		1 344E		
TEST SECT					47 1.00
			7	00	MPA
PRESS	SOME			.00	MFA
SAI	EMP		558	.91	K
MASS	FLUX		28	.01	KG/SEC-M**2
INLE	QUALITY			051	
INLE	FLUX F QUALITY F ENTHALPY ONT:		1.344E		
QUENCH FRO	NT:			-	
	ATION			702	м
	HIY				M/SEC
QUAL	TY			477	
NET LHP PO	OWER TO FLI	UID		0.0	W
VAPOR TEMP	PERATURE M	EASUREMENT	LOCATI	ON	INFORMATION
	VAPOR TEM			-	
			W.F.	57.6	
	DZQF		XE	AA	
(M)	(M)	(K)			

1.232 .530 755.0 .872 .626

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	571.7	.058	9.12E+04	
.051	574.7	.079	9.18E+04	
.063	568.3	.086	9.04E+04	
.089	572.2	, 100	9.08E+04	
.114	569.3	.114	9.07E+04	
. 140	565.3	. 127	8.99E+04	
. 165	563.7	. 141	9.00E+04	
.317	580.8	.225	9.248+04	
. 394	601.4	.268	9.52E+04	
.470	600.8	.312	9.82E+04	
.546	625.3	. 361	1.14E+05	
.622	655.0	. 414	1.19E+05	
. 698	762.2	. 474	1,40E+05	
.775	839.4	.540	1.48E+05	
.851	936.2	.604	1.30E+05	
.927	980.6	. 664	1.30E+05	
1.003	1028.8	. 724	1,29E+05	
1.079	1032.2	.779	1.11E+05	
1.143	1058.0	.823	1.17E+05	
1.181	1015.9	. 347	9.75E+04	9.95E+03
1.244	1049.1	.885	1.01E+05	2.230.03
1.283	1045.8	.908	9.66E+04	
1.321	1074.6	.930	9.23E+04	

POINT SERIAL NO. 1200,080 (TIME= 169.50 SEC) POINT SERIAL NO. 1200.070 (TIME= 142.50 SEC) 16.33 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE (PE-3) 16.34 MPA 574.7 K FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 574.4 K 1.346E+06 J/KG 1.344E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE 7.00 MPA PRESSURE 7.00 MPA SAT TEMP 27.68 KG/SEC-M**2 558.92 K 558.91 K SAT TEMP 28.06 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .052 INLET QUALITY .051 INLET ENTHALPY 1.346E+06 J/KG 1.344E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .854 M ELEVATION .762 M .0025 M/SEC VELOCITY VELOCITY .0048 M/SEC .544 .508 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF IV XE XA ELEVATION DZQF IV XE XA (M) (M) (K) (M) (K) (M) 685.7 .793 .621 .470 735.3 .844 .621 1.232 .378 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE TEMP XE HEAT FLUX HEAT LOSS ELEVATION W/M**2 W/M##2 W/M*#2 (M) (K) (K) W/M##2 (M) .013 .059 567.1 9.09E+04 .013 569.9 .058 9.09E+04 .051 568.7 .080 9.09E+04 .079 9.13E+04 .051 572.2 565.4 9.07E+04 .087 .086 9.04E+04 .063 .063 567.3 .101 .089 9.09E+04 568.1 .089 570.7 . 100 9.08E+04 . 114 565.7 9.08E+04 . 114 , 115 . 114 568.0 9.06E+04 . 140 9.05E+04 .127 564.0 . 129 . 140 564.8 9.00E+04 9.05E+04 562.1 . 165 . 143 . 165 . 141 9.00E+04 563.1 .227 572.2 9.14E+04 577.5 .225 .317 9.20E+04 .317 .270 9.28E+04 . 394 584.5 . 394 595.3 .267 9.40E+04 .313 .470 581.2 9.27E+04 .470 592.6 .311 9.48E+04 . 356 .546 590.4 9.40E+04 .546 609.0 . 355 9.82E+04 . 399 580.8 9.29E+04 1.05E+05 .622 .622 599.4 .402 . 443 604.8 9.77E+04 .698 1.32E+05 .698 691.8 .456 622.3 .490 1.06E+05 .775 1.39E+05 .775 766.7 .518 1.15E+05 1.26E+05 .851 735.3 .541 .851 896.3 .579 862.4 1.17E+05 .596 .637 1.25E+05 .927 941.2 .927 .650 1.16E+05 1.003 905.2 .695 1.28E+05 1.003 988.3 953.8 .702 1.10E+05 1.079 .750 1.13E+05 1009.7 1.079 1.10E+05 1.18E+05 1.143 964.8 . 745 1.143 1029.4 .794 942.9 .769 9.41E+04 1.08E+04 .819 9.97E+04 1.03E+04 1.181 1.181 994.6 1.244 986.0 .806 1.00E+05 1.244 1030.3 .858 1.04E+05 1.283 1024.2 .829 9.70E+04 1038.9 .882 9.85E+04 1.283 9.47E+04 1.321 1067.2 .852 9.35E+04 .904 1.321 1071.7

.089

. 114

.140

. 165

.317

. 394

.470

.546

.622

.698

.775

.851

.927

1.003

1.079

1.143

1,181

1.244

1.283

1.321

564.3

566.6

564.4

563.5

561.5

569.4

578.2

575.4

581.6

589.0

601.3

617.0

769.5

856.0

916.6

932.5

913.5

956.5

1013.7

1062.3

.088

. 102

.116

.130

. 744

.228

.270

.313

. 356

. 398

.441

. 485

.531

.582

.635

.683

.723

. 744

.779

.801

.823

9.07E+04

9.08E+04

9.07E+04

9.05E+04

9.05E+04

9.11E+04

9.20E+04

9.18E+04

9.26E+04

9.18E+04

9.39E+04

9.53E+04

1.02E+05

1.21E+05

1.07E+05

1.03E+05

1.02E+05

8.70E+04

9.42E+04

9.47E+04

9.30E+04

1.04E+04

16.41 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 16.35 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 575.0 K 575.5 K 1.350E+06 J/KG LHP INLET ENTHALPY 1.347E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: 7.00 MPA PRESSURE PRESSURE 7.00 MPA SAT TEMP SAT TEMP 558.96 K 558.96 K MASS FLUX 27.92 KG/SEC-M**2 MASS FLUX 27.68 KG/SEC-M**2 INLET QUALITY .053 INLET QUALITY .055 INLET ENTHALPY INLET ENTHALPY 1.347E+06 J/KG 1.350E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .918 M ELEVATION .985 M VELOCITY .0026 M/SEC VELOCITY .0009 M/SEC QUALITY .576 QUALITY .609 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASURFMENT LOCATION INFORMATION ELEVATION ELEVATION DZQF TV XE XA DZQF TV XE XA (M) (M) (M) (M) (K) (K) 1.232 . 314 660.8 .767 .622 1.232 .247 620.1 .760 .659 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) W/M**2 W/M**2 (M) (K) (K) 9.08E+04 .013 564.5 .062 9.04E+04 .013 565.7 .060 .051 .081 9.08E+04 .051 565.5 .083 9.05E+04 567.1

.063

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1.003

1.079

1.143

1.181

1.244

1.283

1.321

563.3

565.1

563.2

563.0

561.0

567.0

572.2

570.3

574.2

570.0

577.8

585.0

592.8

598.9

712.6

876.9

898.9

890.8

934.7

1003.1

1056.1

.090

.104

.118

.132

. 146

.231

.273

.315

.358

.400

. 443

.486

.529

.574

.621

.669

.707

.730

. 767

.788

.810

9.03E+04

9.04E+04

9.03E+04

9.02E+04

9.02E+04

9.06E+04

9.11E+04

9.10E+04

9.12E+04

9.09E+04

9.17E+04

9.25E+04

9.32E+04

9.66E+04

1.06E+05

9.96E+04

9.89E+04

9.70E+04

9.01E+04

9.43E+04

9.33E+04

INEL POST-CHE EXPERIMENT NO. 200

POINT SERIAL NO. 1200.100 (TIME= 233.50 SEC)

INEL POST-CHE EXPERIMENT NO. 200

POINT SERIAL NO. 1200,090 (TIME= 194.50 SEC)

.927

1.003

1.079

1.143

1.181

1.244

1.283

1.321

580.0

582.9

601.3

877.9

912.9

898.8

936.2

1000.9

1053.5

.531

.574 .619

.665

.700

.721

.756

.777

.798

INFL POST-CHE EXPERIMENT NO. 200

POINT SERIAL NO. 1200.110 (TIME= 285.50 SEC) 16.35 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 576.1 K 1.353E+06 J/KG LHP INLET ENTHALPY TEST SECTION: PRESSURE 7.00 MPA SAT TEMP 558.94 K MASS FLUX 27.28 KG/SEC-M**2 INLET QUALITY .057 INLET ENTHALPY 1.353E+06 J/KG QUENCH FRONT: ELEVATION 1.033 M .0009 M/SEC VELOCITY QUALITY .637 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF TV XE XA ELEVATION (M) (M) (K) 1.232 .199 621.4 .749 .648 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ' (M) (K) W/M##2 W/M##2 .013 563.7 . 064 8.98E+04 564.5 .085 9.00E+04 .051 562.6 .092 8.98E+04 .063 564.1 .107 8.99E+04 .089 .121 . 114 562.5 8.98E+04 . 140 562.8 . 135 8.97E+04 560.6 . 149 8.97E+04 . 165 . 317 565.4 .233 9.00E+04 . 394 568.3 .276 9.02E+04 .470 566.8 .318 9.01E+04 .546 569.6 .361 9.02E+04 9.01E+04 .622 567.0 .403 .698 571.3 . 446 9.04E+04 575.2 .775 .488 9.07E+04

9.10E+04 9.23E+04

1,00E+05

9.15E+04

8.79E+04

9.07E+04

8.67E+04

9.19E+04

9.13E+04

	INEL POS	T-CHF EXPE	RIMENT NO.	200	
POINT SERI	AL NO. 12	00.120 (TIME= 307	50 SEC)	
LOOP PRESS	URE(PE-3)		16.35	MPA	
FCV TEMPER	ATURE (TE-F	CV-11)	576.3	K	
THP INLET			1.355E+06	J/KG	
TEST SECTI	ON:				
PRESS			7.00		
SAT I			558.93		
MASS				KG/SEC-	Waa5
	QUALITY		.058		
	ENTHALPY		1.355E+06	J/KG	
QUENCH FRO			* 040		
ELEVA			1.049		
VELOC				M/SEC	
NET LHP PO		1.15	0.0		
NET THE PO	WER TO LEG	TD.	0.0		
VAPOR TEMP	FRATURE ME	ASUREMENT	LOCATION	INFORMAT	LON
ELEVATION			XE XA		
(M)	(M)	(K)			
1	411.6	4			
1.232	. 183	619.0 .	748 .650		
WALL TEMPE	DATHRE MEA	SUREMENT I	OCATION II	NEORMATI	ON
ELEVATION		XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		W/M	**2	W/M**2
817.6					
.013	563.6	.065			
.051	564.2	.086			
.063	562.4				
.089	563.8	. 107	8.95		
. 114	562.3	. 121			
. 140	562.7	. 135	8.94		
. 165	560.5	. 149	8.94		
.317	565.0	.233	8.97		
394	567.3				
.470	566.0	, 318			
.546	568.4	. 360			
.622	566.3	.445	9.00		
.698	569.7 572.8				
.775	576.9				
.851	578.6			2000	
1.003	594.8				
1.079	877.3				
1.143	908.1		9.55		
1.143	200.1	710			

.718

.755

.776

. 798

9.75E+04

8.99E+04

9.20E+04

9.15E+04

1.181

1.244

1.283

1.321

889.7

926.2

999.6

1052.5

1051.1

INEL POST-CHE EXPERIMENT NO. 200

POINT SERIAL NO. 1200.140 (TIME= 349.50 SEC) POINT SERIAL NO. 1200, 130 (TIME= 330, 50 SEC) LOOP PRESSURF (PE-3) 16.33 MPA 16.32 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 576.5 K FCV TEMPERATURE (TE-FCV-11) 576.2 K LHP INLET ENTHALPY 1.354E+06 J/KG LHP INLET ENTHALPY 1.356E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 7.00 MPA PRESSURE 7.00 MPA SAT TEMP 558,92 K SAT TEMP 558.93 K 27.32 KG/SEC-M**2 27.18 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY -059 INLET QUALITY .057 INLET ENTHALPY 1.356E+06 J/KG INLET ENTHALPY 1.354E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION 1.072 M ELEVATION 1.061 M VELOCITY .0006 M/SEC VELOCITY .0006 M/SEC . 644 .638 QUALITY QUALITY 0.0 W NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA DZQF TV XE XA ELEVATION (M) (M) (K) (M) (K) (M) 1.232 .170 609.1 .741 .657 1.232 . 160 621.0 .724 .627 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT LOSS ELEVATION W/M**2 W/M**2 W/M##2 W/M##2 (M) (K) (K) (M) .013 563.4 .065 8.57E+04 .013 563 4 .064 8.935+04 .051 8.58E+04 8.94E+04 564.0 .086 .051 564.0 .086 8.58E+04 .093 8.93E+04 .063 562.2 .093 .063 562.2 8.58E+04 .089 563.6 .107 8.93E+04 .089 563.5 . 106 .120 . 121 .114 8.58E+04 . 114 562 1 8.93E+04 562.0 .133 . 140 8.58E+04 . 140 562.6 .135 8.93E+04 562.6 . 165 . 147 8.58E+04 . 165 8.93E+04 560.4 560.4 . 149 8.59E+04 . 317 564.4 .228 .317 564.6 .233 8.95E+04 . 394 8.61E+04 . 394 .275 8.96E+04 566.0 .268 566.5 8.60E+04 .317 .470 8.96E+04 .470 564.9 .309 565.3 .350 .546 566.9 8.61E+04 .546 567.5 . 359 8.96E+04 .390 8.95E+04 .622 565.5 8.60E+04 .622 565.8 .401 .698 8.61E+04 8.97E+04 567.8 431 .698 568.4 . 443 8.63E+04 8.99E+04 .775 569.9 .472 .775 570.9 .486 572.8 .512 8.63E+04 .528 .851 .851 574.2 9.02E+04 .553 .927 578.0 8.70E+04 .927 579.9 .570 8.92E+04 .597 9.61E+04 8.42E+04 1.003 612.2 1.003 608.4 .611 9.74E+04 1.01E+05 1.079 874.7 .642 1.079 873.5 .654 8.55E+04 1,143 908.2 .678 1.143 903.0 .692 9.16E+04 .714 8.35E+04 9.03E+04 1.181 891.1 .698 1.181 883.4 .730 929.5 7.76E+04 922.1 .748 1.244 1.244 8.43E+04 .749 1,283 998.0 8.74E+04 1.283 997.5 .769 9.16E+04 1.321 1051.2 .770 8.74E+04 .790 9.11E+04

1.079

1.143

1.181

1.244

1.283

571.4

807.7

861.7

861.5

907.0

986.9

1039.4

INEL POST-CHE EXPERIMENT NO. 200

POINT SERIAL NO. 1200,150 (TIME= 387.50 SEC) 16.37 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 576.6 K 1.356E+06 J/KG LHP INLET ENTHALPY TEST SECTION: 7.00 MPA PRESSURE SAT TEMP 558.91 K 27.50 KG/SEC-M**2 MASS FLUX INLET QUALITY .059 INLET ENTHALPY 1.356E+06 J/KG QUENCH FRONT: ELEVATION 1.093 M VELOCITY .0006 M/SEC QUALITY .568 0.0 W NET LHP POWER TO FLUID

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (K)

1.232 .139 602.0 .646 .580

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION

ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 (M) (K) .013 563.2 .065 7.45E+04 .051 563.6 .082 7.45E+04 .063 561.8 .088 7.45E+04 7.45E+04 .089 563.0 . 100 .112 .114 561.7 7.45E+04 .123 . 140 562 3 7.45F+04 . 165 . 135 560.1 7.45E+04 .317 563.9 .205 7.45E+04 7.46E+04 .240 . 394 564.9 564.0 .276 7.47E+04 .470 .311 565.9 7.48E+04 .546 7.46E+04 .622 564.6 . 346 7.48E+04 .698 566.5 . 381 7.48E+04 .775 568.1 .416 570.5 .452 7.49E+04 .851 7.52E+04 .927 569.4 .487

.523

.596

.618

.652

.691

7.59E+04

8.60E+04

9.57E+04

9.05E+04

8.48E+04

8.27E+04

8.16E+04

INEL POST-CHE EXPERIMENT NO. 201

POINT SERIAL NO. 1201.011 (INFERRED VAPOR TEMP)	(TIME= 112	.50 SEC)
LOOP PRESSURE(PE-3)	16.44	MPA
FCV TEMPERATURE (TE-FCV-1T)	574.0	
LHP INLET ENTHALPY	1.342E+06	
TEST SECTION:		
PRESSURE	7.00	MPA
SAT TEMP	558.97	K
MASS FLUX	29.94	KG/SEC-M##2
INLET QUALITY	.049	
INLET ENTHALPY	1.342E+06	J/KG
QUENCH FRONT:		
ELEVATION	.541	М
VELOCITY	.0033	M/SEC
QUALITY	.487	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP)
ELEVATION DZQF TV XE XA
(M) (M) (K)

1,232 .691 860.0 1.049 .672

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M##2	W/M**2
.013	571.4	.059	1.36E+05	
.051	573.7	.088	1.36E+05	
.063	568.3	.098	1.35E+05	
.089	572.1	.118	1.35E+05	
. 114	568.8	. 137	1.35E+05	
. 140	565.2	. 156	1.35E+05	
. 165	562.9	. 176	1.35E+05	
.317	579.0	. 293	1.37E+05	
. 394	600.7	. 353	1.40E+05	
.470	629.8	.418	1.64E+05	
.546	770.7	.492	1.77E+05	
.622	902.8	.564	1.60E+05	
.698	964.8	.632	1.55E+05	
.775	1023.3	.698	1.52E+05	
.851	1075.1	.763	1.50E+05	
.927	1123.7	.828	1.48E+05	
1.003	1168.7	.890	1.418+05	
1.079	1127.0	. 948	1.29E+05	6.67E+03
1.143	1181.2	. 995	1.32E+05	5.33E+03
1.181	1121.2	1.021	1.14E+05	1.90E+04
1.245	1154.4	1.065	1.29E+05	
1.283	1119.0	1.093	1.31E+05	
1.321	1130.1	1.121	1.29E+05	

POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA LHP INLET E TEST SECTIO PRESSU SAT TE MASS F INLET INLET UNLET QUENCH FRON ELEVAT VELOCI QUALIT NET LHP POW	L NO. 1201.03 APOR TEMP) RE(PE-3) TURE(TE-FCV-11 NTHALPY N: RE MP LUX QUALITY QUALITY T: ION TY Y ER TO FLUID	1.34 5 1.34	= 140.50 SEC) 16.37 MPA 574.5 K 5E+06 J/KG 7.00 MPA 58.96 K 29.66 KG/SEC051 5E+06 J/KG .611 M .0018 M/SEC .532 0.0 W	M**2	LINEERRED V	L NO. 124 APOR TEMP RE(PE-3) TURE(TE-FO NTHALPY N: RE MP LUX QUALITY ENTHALPY I: ION IY Y ER TO FLU	01.031 (T) CV-1T) 1	1ME= 203.50 SEC 16.45 MPA 575.3 K .349E+06 J/KG 7.00 MPA 558.93 K 29.25 KG/SEC .054 .349E+06 J/KG .686 M .0007 M/SEC .588 0.0 W	
VAPOR TEMPE	RATURE MEASURE	MENT LOCA	TION INFORMAT	ION	ASSESSED FEBRUAR	RATURE ME	ASUREMENT L	OCATION INFORMA	TION
(INFERRED V		XE	XA		(INFERRED V	APOR TEMP DZQF		E XA	
ELEVATION (M)	DZQF TV (M) (K		^^		(M)	(M)	(K)		
1.232	.620 840	0 1.022	.669		1.232	.546	7,90.0 1.0	01 .691	
	ATURE MEASURER	MENT LOCAT	ION INFORMATI	ON	WALL TEMPER	ATURE MEA	SUREMENT LO	CATION INFORMAT	
ELEVATION (M)	TEMP (K)	XE	W/M**2	ON HEAT LOSS W/M**2	ELEVATION (M)		XE	W/M**2	HEAT LOSS W/M**2
						565.4	.064	1.34E+05	
.013	568.2 569.6	.061	1.34E+05		.051	566.5	.093	1.34E+05	
.063	566.2	. 100	1.34E+05 1.34E+05		.063	564.2	. 103	1.34E+05	
.089	569.0	.119	1.34E+05		.089	565.9	. 123	1.34E+05	
.114	566.2	.139	1.34E+05		. 114	563.6	. 142	1.34E+05	
. 140	564.2	. 158	1.34E+05		. 140	563.2	. 162	1.34E+05	
. 165	561.5	.177	1.34E+05		. 165	560.4	. 181	1.33E+05	
.317	572.9	.294	1.35E+05		. 317	567.7	.299	1.34E+05	
. 394	587.8	. 353	1.37E+05		. 394	574.4	. 358	1.35E+05	
. 470	587.1	.412	1.38E+05		. 470	572.5	.417	1.34E+05	
.546	610.4	. 474	1.48E+05		.546	579.1	.476	1.35E+05	
.622	762.1	.542	1.63E+05		.622	577.2	.536	1.36E+05	
.698	918.5	.609			.698	771.4	.598	1.47E+05	
.775	981.7	.673	1.46E+05		.775	950.6 999.3	.661	1.37E+05 1.37E+05	
. 851	1042.2	. 735	1.43E+05		.851	1055.1	.782	1.37E+05	
.927	1094.5	.797	1.42E+05 1.42E+05		1.003	1120.2	.842	1.36E+05	
1.003	1118.9	.918	1.31E+05	5 625+03	1.079	1108.5	.899	1.28E+05	4.94E+03
1.143	1169.3	.967	1.35E+05	5.62E+03 2.42E+03 1.49E+04	1.143	1158.7	.947	1.29E+05	2.81E+03
1.181	1113.6	.994	1.18E+05	1 495+04	1.181	1112.9		1.14E+05	1.58E+04
1.245	1145.2	1.039	1.28E+05		1.245	1133.9	1.018	1.27E+05	
1.283		1.067	1.33E+05		1.283	1127.8	1.047	1.36E+05	
1.321		1.096	1.31E+05		1.321	1157.9	1.076	1.34E+05	
1.361						110110			

/ INCEDDED M	ADOD TEMP		IME= 310.50 SEC)		AL NO. 1201 VAPOR TEMP)	.051 (TIME= 390.50 SEC)	
LOOP PRESSI	WELL DE - 37		16 h2 MPA		LOOP PRESSI	IRF(PF-3)		16 35 MPA	
ECV TEMPERA	16.42 MPA 16.42 MPA 17.576.5 K 18.141 FT ENTHALPY 18.141 FT ENTHALPY 18.141 FT ENTHALPY 18.141 FT ENTHALPY			FCV TEMPERA	ATURE (TE-EC)	/-1T1	16.35 MPA 577.0 K 1.358E+06 J/KG		
THE INTEL	NTHAL PY		.356E+06 J/KG		IND INIET	NTHAL DY		1 358E+06 1/KG	
TEST SECTIO	THE PERSON OF		. 3701-100 3710		TEST SECTIO	NI.		1.3302.00 37.00	
			7.01 MPA		PRESSU			7.00 MPA	
PRESSU						CARD		EEO OF V	
SAT TE	MP		559.00 K	-M**2	DAT IE	EMP		28.81 KG/SEC-I .060 1.358E+06 J/KG	W##2
MASS F	LUX		28.97 KG/SEC	-M="2	MASS I	LUX		20.81 KG/SEG-	MS
INLEI	QUALITY		.059		INLEI	QUALITY		.000	
INLET	ENTHALPY	1	. 356E+06 J/KG		INLEI	ENTHALPY		1.3581+06 3/86	
			- 1 ald 14.7 F		QUENCH FROM				
ELEVAT			.757 M .0006 M/SEC		ELEVA	TION		.802 M .0006 M/SEC	
VELOCI			.0006 M/SEC		VELOCI			.0006 M/SEC	
QUALIT			.645		QUALIT			.545	
NET LHP POW	ILK TO FLU	ID	0.0 W		NET LHP POP	VER TO FLUIT)	0.0 W	
VAPOR TEMPE			OCATION INFORMA	TION	VAPOR TEMPE (INFERRED V	(APOR TEMP)		LOCATION INFORMAT	ION
ELEVATION	DZQF	TV X	E XA		ELEVATION	DZQF	IV	XE XA	
(M)	(M)	(K)			(M)	(M)	(K)		
1.232	.475	770.0 .99	95 . 703		1.232	. 430	10.0 .	851 .646	
(M)	TEMP (K)	XE	M/W##5	HEAT LOSS W/M**2	ELEVATION (M)	TEMP (K)	XE	W/M**2	HEAT LOSS W/M**2
.013	5 1.3	.068	1.32E+05		.013	563.7			
.051	65.0	.098	1.32E+05		.051	564.1	.091	1.02E+05	
.063	563.0	. 108	1.328+05		.063	562.4	.098	1.01E+05	
.089	564.3	. 127	1.32E+05		.089	563.4	. 113	1.02E+05	
.114	562.5	. 147	1.32E+05		. 114	562.0	. 129	1.01E+05	
. 140	562.9	. 167	1.32E+05		. 140	562.7	. 144	1.01E+05	
. 165	559.8	. 186	1.32E+05		. 165	559.6	. 159	1.01E+05	
.317	565.2	. 304	1.32E+05		.317	564.4	.250	1.02E+05	
. 391	567.6	. 363	1.32E+05		. 394	565.5	.296	1.02E+05	
.470	566.6	. 422	1.32E+05		. 470	564.6	. 341	1.02E+05	
. 16	569.0	.481	1.32E+05		.546	566.6	.387	1.02E+05	
.622	567.8	.540	1.32E+05		.622	565.4	.432	1.02E+05	
. 698	600.7	.599	1.29E+05		.698	570.5	.478	1.02E+05	
.775	991.2	.660	1.45E+05		.775	639.2	.526	1.11E+05	
. 851	1043.4	.720	1.26E+05		.851	893.6	.580	1.32E+05	
	1081.4	.777	1.29E+05		.927	935.6	.639	1.291+05	
.927					1.003	OOO I	.697	1.30E+05	
	1129.2	.834	1.29E+05			988.4			
.927	1129.2	.891	1.25E+05	6.38E+03	1.079	1047.8	.753	1.22E+05	
1.003	1129.2 1122.7 1176.1		1.29E+05 1.25E+05 1.31E+05	1.76E+03			.753		
.927 1.003 1.079	1129.2 1122.7 1176.1 1133.1	.891 .938 .966	1.25E+05 1.31E+05 1.19E+05		1.079	1047.8 1113.9 1051.9	.753 .799 .825	1.22E+05 1.27E+05 1.04E+05	1.64E+04
.927 1.003 1.079 1.143	1129.2 1122.7 1176.1	.891 .938 .966	1.25E+05 1.31E+05	1.76E+03	1.079	1047.8	.753	1.22E+05 1.27E+05	1.64E+04
.927 1.003 1.079 1.143 1.181	1129.2 1122.7 1176.1 1133.1	.891	1.25E+05 1.31E+05 1.19E+05	1.76E+03	1.079 1.143 1.181	1047.8 1113.9 1051.9	.753 .799 .825	1.22E+05 1.27E+05 1.04E+05	1.64E+04

POINT SERIAL NO. 1201.061 (TIME= 411.50 SEC) POINT SERIAL NO. 1201.071 (TIME= 556.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.33 MPA LOOP PRESSURE(PE-3) 16.37 MPA FCV TEMPERATURE (TE-FCV-11) 577.3 K FCV TEMPERATURE (TE-FCV-1T) 577.8 K LHP INLET ENTHALPY 1.360E+06 J/KG LHP INLET ENTHALPY 1.363E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE PRESSURE 7.01 MPA 7.01 MPA SAT TEMP SAT TEMP 559.00 K 558.99 K MASS FLUX 28.75 KG/SEC-M**2 MASS FLUX 28.34 KG/SEC-M**2 INLET QUALITY INLET QUALITY .061 .063 INLET ENTHALPY 1.360E+06 J/KG INLET ENTHALPY 1.363E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .816 M ELEVATION .931 M VELOCITY .0012 M/SEC VELOCITY .0005 M/SEC QUALITY .556 QUALITY .627 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) IV TV DZQF ELEVATION DZQF XA ELEVATION XA (M) (M) (K) (M) (K) (M) 1.232 .416 1,232 660.0 690.0 .827 .644 . 301 .825 .670 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS TEMP XE HEAT FLUX HEAT LOSS ELEVATION XE ELEVATION W/M##2 W/M##2 W/M##2 (M) (K) W/M##2 (M) (K) 1.01E+05 .013 563.7 .069 1.02E+05 .013 563.2 .071 1.02E+05 .051 .092 1.02E+05 .094 564.1 .051 564.8 1.02E+05 .101 1.01E+05 .063 562.4 . 100 .063 562.0 .089 .115 1.02E+05 .089 562.8 .117 1.01E+05 563.4 . 114 562.1 .130 1.02E+05 . 114 561.8 .132 1.01E+05 . 140 . 147 1.01E+05 . 140 562.9 . 145 1.02E+05 562.7 . 165 . 160 559.9 . 162 1.01E+05 559.8 1.02E+05 . 165 .317 564.2 .252 1.02E+05 .317 563.3 .254 1.02E+05 . 394 .298 .300 565.2 1.02E+05 . 394 563.7 1.02E+05 .470 564.4 . 343 1.02E+05 .470 563.1 . 346 1.01E+05 .546 566.2 .389 1.02E+05 .546 564.3 .392 1.02E+05 .622 565.4 .435 1.02E+05 .622 563.9 .438 1.02E+05 .698 .698 569.2 .481 1.02E+05 564.9 .484 1.02E+05 .528 .775 .775 609.6 1.09E+05 571.9 .530 1.02E+05 .851 765.6 .581 1.24E+05 .851 581.8 .577 1.03E+05 .927 897.1 .634 1.12E+05 .927 748.8 .625 1.09E+05 1.003 945.9 .684 1.14E+05 1.003 924.7 .676 1.13E+05 .736 1.079 1012.5 1.16E+05 1.079 958.7 .726 1.09E+05 .767 1.143 1074.2 .779 1.15E+05 1.143 1040.3 1.11E+05 1,181 1018.3 .803 9.66E+04 1.37E+04 1.181 991.8 .793 1.12E+05 997.5 1.03E+05 1.244 1027.4 .841 1.06E+05 1.244 .833 1053.0 1.07E+05 1.283 1049.3 .857 1.03E+05 1.283 .865 1096.9 1.01E+05 1.321 1095.4 .889 1.06E+05 1.321 .880

POINT SERIAL NO. (INFIRRED VAPOR TE LOOP PRESSURE(PE-3 FCV TEMPERATURE(TE LHP INLET ENTHALPY TEST SECTION: PRESSURE AT TEMP FASS FLUX THET QUALITY INLET ENTHALP QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO F	1201.081 (TIM MP))-FCV-11) 1.3	E= 640.50 SEC) 16.35 MPA 577.8 K 63E+06 J/KG 7.01 MPA 559.03 K 28.24 KG/SEC063 63E+06 J/KG .972 M .0005 M/SEC .651 0.0 W	M**2	POINT SERIA (INFERRED V. LOOP PRESSU FCV TEMPERA LHP INLET E. TEST SECTION PRESSU SAT TEM MASS F. INLET INLET QUENCH FRON ELEVAT VELOCI' QUALIT	L NO. 120 APOR TEMP) RE(PE-3) TURE(TE-FO NTHALPY N: RE MP LUX QUALITY ENTHALPY T: ION TY ER TO FLUI	01.091 (V-1T)	(TIME= 6 16. 5777 1.363E+ 7. 559. 28. .0 1.363E+ 1.0 .00	98.50 SEC) 32 MPA .8 K 06 J/KG 01 MPA 00 K 41 KG/SEC- 63 06 J/KG 04 M 05 M/SEC 92	-M**2
VAPOR TEMPERATURE (INFERRED VAPOR TE ELEVATION DZQF (M) (M)	MEASUREMENT LOC MP) TV XE (K)	ATION INFORMAT	ION	VAPOR TEMPER (INFERRED VI ELEVATION (M)	RATURE MEA APOR TEMP) DZQF (M)	SUREMENT TV (K)	LOCATIO	N INFORMAT	ION
1.232 .260				1.232			.737 .6		
. 063 . 562 089 . 562 114 . 561 140 . 562 165 . 559 317 . 563 394 . 563 470 . 563 470 . 563 622 . 563 628 . 564 775 . 567 851 . 574 927 . 616 1.003 . 952 1.079 . 957 1.143 . 1020 1.181 . 965	4 .071 8 .094 0 .101 8 .117 8 .132 7 .147 9 .163 1 .255 6 .301 0 .347 0 .393 8 .439 2 .485 6 .531 2 .578 8 .623 9 .670 1 .717 1 .754	TION INFORMATE HEAT FLUX W/M**2 1.02E+05 1.01E+05 1.01E+05 1.01E+05 1.01E+05 1.01E+05 1.02E+05 1.02E+	ON HEAT LOSS W/M**2	WALL TEMPER/ ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	563.4 564.4 561.8 562.5 561.5 562.7 562.7 562.7 563.1 562.5 563.3 563.3 563.7 566.2 570.8 580.8 742.7 917.3 980.3 936.5	.070 .090 .097 .110 .123 .137 .150 .230 .310 .350 .390 .430 .470 .510 .551 .592 .638 .679	8. 8. 8. 8. 8. 8. 8. 8. 8. 1.	80E+04 81E+04 80E+04 80E+04 90E+04 80E+04 80E+04 80E+04 80E+04 80E+04	HEAT LOSS W/M**2
1.244 971. 1.283 1045. 1.321 1096.	7 .813 7 .835 9 .858	9.33E+04 1.04E+05 1.03E+05		1.244 1.283 1.321	952.5 1025.2 1077.4	. 745 . 768 . 791	1.0	01E+05 89E+04	

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POINT SERIAL NO. 1201, 101 (TIME= 745.50 SEC)
                                                                        POINT SERIAL NO. 1204.021 (TIME= 80.50 SEC)
(INFERRED VAPOR TEMP)
                                                                        (INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                                  16.35 MPA
                                                                        LOOP PRESSURE(PE-3)
                                                                                                           16.07 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                 577.8 K
                                                                        FCV TEMPERATURE (TE-FCV-11)
                                                                                                           548.5 K
LHP INLET ENTHALPY
                              1.363E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                       1.209E+06 J/KG
TEST SECTION:
                                                                        TEST SECTION:
    PRESSURE
                                   7.01 MPA
                                                                             PRESSURE
                                                                                                           3.49 MPA
    SAT TEMP
                                 558.99 K
                                                                             SAT TEMP
                                                                                                          515.50 K
    MASS FLUX
                                  28.11 KG/SEC-M**2
                                                                             MASS FLUX
                                                                                                          20.98 KG/SEC-M**2
     INLET QUALITY
                                  .063
                                                                             INLET QUALITY
                                                                                                           .092
     INLET ENTHALPY
                              1.363E+06 J/KG
                                                                             INLET ENTHALPY
                                                                                                       1.209E+06 J/KG
QUENCH FRONT:
                                                                        QUENCH FRONT:
    ELEVATION
                                  1.029 M
                                                                             ELEVATION
                                                                                                            .316 M
    VELOCITY
                                  .0005 M/SEC
                                                                             VELOCITY
                                                                                                           .0090 M/SEC
    QUALITY
                                   .609
                                                                             QUALITY
                                                                                                            .264
NET LHP POWER TO FLUID
                                                                        NET LHP POWER TO FLUID
                                    0.0 W
                                                                                                             0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                                                                        (INFERRED VAPOR TEMP)
ELEVATION
            DZQF
                                                                        ELEVATION
                                                                                     DZQF
                                    XA
                                                                                               TV
                                                                                                       XE
 (14)
             (M)
                      (K)
                                                                          (M)
                                                                                     (M)
                                                                                               (K)
1.232
             .203
                            .716 .647
                                                                         1.232
                                                                                     .916
                     600.0
                                                                                             899.0
                                                                                                      .810 .528
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                        WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
ELEVATION
              TEMP
                         XE
                                   HEAT FLUX
                                                 HEAT LOSS
                                                                        ELEVATION
                                                                                      TEMP
                                                                                                  XE
                                                                                                            HEAT FLUX
                                                                                                                           HEAT LOSS
                                    W/M##2
 (M)
              (K)
                                                   W/M##2
                                                                          (M)
                                                                                       (K)
                                                                                                             W/M**2
                                                                                                                            W/M**2
  .013
              563.3
                         .070
                                   8.82E+04
                                                                                      545.7
                                                                                                  .097
                                                                          .013
                                                                                                            6.11E+04
                         .090
                                                                                                 .114
 .051
              564.3
                                   8.83E+04
                                                                          .051
                                                                                       561.0
                                                                                                            6.65E+04
  .063
              561.8
                         .097
                                   8.82E+04
                                                                          .063
                                                                                       538.1
                                                                                                  .119
                                                                                                            5.96E+04
  .089
              562.5
                         .110
                                   8.82E+04
                                                                          .089
                                                                                       550.2
                                                                                                  .130
                                                                                                            6.43E+04
                                                                          .114
 . 114
              561.6
                         . 123
                                   8.81E+04
                                                                                                  . 141
                                                                                       544.3
                                                                                                            6.54E+04
 . 140
                         .137
                                   8.81E+04
                                                                          .140
              562.6
                                                                                       540.9
                                                                                                  . 154
                                                                                                            8.12E+04
 . 165
                         . 150
              559.8
                                   8.81E+04
                                                                          . 165
                                                                                       557.9
                                                                                                  . 168
                                                                                                            8.51E+04
 .317
              562.7
                         .231
                                   8.82E+04
                                                                          . 317
                                                                                      688.7
                                                                                                  .265
                                                                                                            9.85E+04
  . 394
              563.0
                         .271
                                   8.82E+04
                                                                          . 394
                                                                                      802.0
                                                                                                  .321
                                                                                                            1.11E+05
 .470
                         . 311
                                                                                                  . 380
              562.6
                                   8.81E+04
                                                                          .470
                                                                                      891.6
                                                                                                            1.16E+05
                                                                          .546
                                                                                                  .439
  .546
              563.4
                         .351
                                   8.82E+04
                                                                                      941.3
                                                                                                           1.07E+05
 .622
              563.4
                         .392
                                   8.82E+04
                                                                                      984.7
                                                                          .622
                                                                                                  .494
                                                                                                            1.05E+05
 .698
                         .432
                                   8.82E+04
              563.5
                                                                          .698
                                                                                      1017.4
                                                                                                  .546
                                                                                                            9.57E+04
 .775
                         .472
                                   8.84E+04
              566.0
                                                                          .775
                                                                                      1045.9
                                                                                                  .595
                                                                                                            8.98E+04
                                                                          .851
 .851
              569.2
                         .512
                                   8.86E+04
                                                                                      1070.5
                                                                                                  .641
                                                                                                            8.38E+04
              576.6
                         .553
                                   8.99E+04
  .927
                                                                          .927
                                                                                      1089.7
                                                                                                  .683
                                                                                                            7.74E+04
 1,003
              592.1
                         .595
                                   9.32E+04
                                                                                                  .723
                                                                         1,003
                                                                                     1108.8
                                                                                                            7.38E+04
 1.079
              887.6
                         .637
                                   9.28E+04
                                                                         1.079
                                                                                      1043.4
                                                                                                  .758
                                                                                                            5.80E+04
                                                                                                  .783
 1,143
              924.3
                         .672
                                   8.73E+04
                                                                         1.143
                                                                                      1057.4
                                                                                                            5.58E+04
 1,181
              887.9
                         .691
                                   8.50E+04
                                                                         1.181
                                                                                      997.7
                                                                                                  .797
                                                                                                            4.73E+04
                                                                                                                           5.06E+03
 1.244
              903.7
                         .722
                                   7.81E+04
                                                                         1.244
                                                                                     1034.0
                                                                                                  .818
                                                                                                            5.10E+04
                         .741
 1.283
             1000.8
                                   8.75E+04
                                                                         1.283
                                                                                      998.5
                                                                                                  .832
                                                                                                            5.37E+04
                         .761
                                   8.85E+04
 1.321
             1054.9
                                                                         1.321
                                                                                      1032.3
                                                                                                  . 846
                                                                                                            5.33E+04
```

POINT SERIAL NO. 1204.031 (TIME= 89.50 SEC) POINT SERIAL NO. 1204.041 (TIME= 100.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.09 MPA LOOP PRESSURE (PE-3) 16.07 MPA FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-11) 548.5 K 548.7 K LHP INLET ENTHALPY 1.209E+06 J/KG LHP INLET ENTHALPY 1.210E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.49 MPA PRESSURE 3.49 MPA SAT TEMP SAT TEMP 515.48 K 515.45 K MASS FLUX MASS FLUX 21.32 KG/SEC-M**2 21.26 KG/SEC-M**2 INLET QUALITY .092 INLET QUALITY .092 INLET ENTHALPY 1.209E+06 J/KG INLET ENTHALPY 1.210E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .391 M .472 M ELEVATION VELOCITY .0078 M/SEC .0070 M/SEC VELOCITY .310 QUALITY .283 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF TV XA ELEVATION DZQF (M) (M) (K) (M) (M) (K) 1.232 .841 870.0 .779 .520 1,232 .760 830.0 .759 .526 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX ELEVATION TEMP XE W/M##2 W/M**2 W/M##2 M/W*#5 (M) (K) (M) (K) 5.84E+04 5.68E+04 .013 539.3 .097 .013 534.6 .097 .051 549.5 , 112 6.20E+04 .051 540.9 .112 5.88E+04 5.59E+04 .063 533.5 .118 5.71E+04 .063 530.2 .117 5.89E+04 5.69E+04 .089 542.2 . 128 .089 537.1 . 127 .114 .138 . 114 . 137 536.9 5.80E+04 532.8 5.64E+04 . 140 . 148 528.3 5.71E+04 . 140 525.6 . 146 5.53E+04 5.61E+04 . 165 530.4 . 159 6.43E+04 . 165 526.0 . 156 8.49E+04 558.5 .221 6.80E+04 . 317 630.5 .236 . 317 9.89E+04 . 394 8.45E+04 707.0 .284 . 394 638.4 .261 .309 .470 807.6 .339 1.13E+05 .470 711.4 1.00E+05 .397 .546 892.4 1.09E+05 801.9 . 364 1.11E+05 .546 .622 937.4 .453 1.04E+05 .622 879.7 .421 1.08E+05 9.72E+04 928.4 9.67E+04 .698 978.0 .505 .698 .475 .555 .775 1012.0 9.24E+04 .775 968.9 .524 9.26E+04 8.62E+04 .851 1042.1 .601 .851 1005.6 .571 8.77E+04 .927 1067.0 .645 8.14E+04 .927 1035.3 8.57E+04 .616 1.003 1090.1 .686 7.68E+04 1.003 1064.5 .659 8.11E+04 1.079 1038.8 6.18E+04 1.079 1029.7 .697 6.53E+04 .722 1053.7 .749 6.17E+04 1043.2 6.77E+04 3.79E+02 1.143 3.74E+02 1.143 .726 .764 1.181 996.7 5.27E+04 5.11E+03 1.181 990.2 .742 5.83E+04 4.27E+03 . 768 1.244 1031.5 .788 5.64E+04 1.244 1023.6 6.19E+04 . 784 1.283 998.7 .802 5.59E+04 1.283 996.1 6.15E+04 1033.2 .817 5.44E+04 1032.4 5.99E+04 1.321 1.321 .800

.741

.757

.773

6.31E+04

6.21E+04

6.00E+04

1012.5

989.4

1027.2

1.244

1.283

1.321

POINT SERIAL NO. 1204.051 (TIME= 110.50 SEC) POINT SERIAL NO. 1204.060 (TIME= 121.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.07 MPA LOOP PRESSURE (PE-3) 16.09 MPA FCV TEMPERATURE (TE-FCV-1T) 548.7 K FCV TEMPERATURE (TE-FCV-IT) 548.5 K LHP INLET ENTHALPY 1.210E+06 J/KG LHP INLET ENTHALPY 1.209E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.49 MPA PRESSURE 3.49 MPA SAT TEMP 515.46 K SAT TEMP 515.48 K MASS FLUX 21.30 KG/SEC-M**2 MASS FLUX 21.13 KG/SEC-M**2 INLET QUALITY .092 INLET QUALITY .092 INLET ENTHALPY 1.210E+06 J/KG INLET ENTHALPY 1.209E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .544 M ELEVATION .620 M VELOCITY .0074 M/SEC VELOCITY .0064 M/SEC QUALITY . 338 QUALITY . 374 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA ELEVATION DZQF TV (M) (M) (K) (M) (M) (K) 1.232 .612 776.7 .719 .523 1.232 .688 799.0 .731 .521 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION HEAT FLUX W/M##2 TEMP XE HEAT LOSS (M) (K) W/M##2 W/M**2 (M) W/M##2 (K) .096 .013 529.6 5.57E+04 .013 531.7 5.61E+04 5.64E+04 . 997 .051 532.7 .111 .051 536.1 .112 5.72E+04 .063 526.7 . 116 5.56E+04 .117 .063 528.3 5.55E+04 .089 531.8 . 126 5.61E+04 .089 534.2 . 126 5.61E+04 . 114 528.3 . 135 5.61E+04 -114 .136 530.4 5.58E+04 . 140 . 145 523.5 5.54E+04 . 140 524.4 . 146 5.49E+04 . 165 522.7 . 155 5.55E+04 .317 .214 . 165 524.1 . 155 5.53E+04 540.8 5.81E+04 .317 .215 5.89E+04 546.3 . 394 567.1 . 245 6.15E+04 .394 579.8 .248 7.03E+04 .470 576.2 .281 7.38E+04 .470 641.2 .289 8.78E+04 647.4 9.27E+04 .546 . 324 . 339 .546 726.8 1.02E+05 .622 705.3 . 375 1.03E+05 .622 794.5 .395 1.14E+05 .698 815.6 .429 1.01E+05 .698 885.2 .449 9.61E+04 .775 889.4 .478 8.85E+04 .498 8.99E+04 .775 931.0 .851 936.8 . 524 8.56E+04 .851 973.2 .544 8.59E+04 971.3 .569 .927 8.45E+04 .927 1004.8 .588 8.34E+04 1.003 1009.1 8.17E+04 .612 1.003 1039.3 7.99E+04 .630 1.079 1003.1 .652 7.01E+04 6.70E+04 1.079 1018.5 .668 1.143 1010.7 .683 7.20E+04 7.52E+02 .697 1.143 1029.2 6.86E+04 7.04E+02 1.181 967.7 .701 6.30E+04 4.48E+03 .714 1.181 981.0 5.95E+04 4.37E+03 1.244 996.3 .729 6.73E+04

1,283

1.321

INEL POST-CHF EXPERIMENT NO. 204

. 747

. 764

6.63E+04

6.38E+04

978.6

1019.4

.718

.736

960.3

1004.4

1.283

1.321

7.18E+04

6.96E+04

POINT SERIAL NO. 1204.080 (TIME= 151.50 SEC) POINT SERIAL NO. 1204.0/1 (TIME= 134.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 16.12 MPA LOOP PRESSURE(PE-3) 16.07 MPA FCV TEMPERATURE (TE-FCV-1T) 548.6 K FCV TEMPERATURE (TE-FCV-11) 548.4 K LHP INLET ENTHALPY 1.210E+06 J/KG LHP INLET ENTHALPY 1.209E+06 J/KG TEST SECTION: TEST SECTION: 3.49 MPA 3.49 MPA PRESSURE PRESSURE SAT TEMP 515.46 K SAT TEMP 515.49 K 21.18 KG/SEC-M**2 MASS FLUX 21.17 KG/SEC-M**2 MASS FLUX INLET QUALITY .092 INLET QUALITY .091 INLET ENTHALPY 1.210E+06 J/KG INLET ENTHALPY 1.209E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .778 M ELEVATION .696 M VELOCITY .0044 M/SEC .0053 M/SEC VELOCITY QUALITY .395 .416 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (INFERRED VAPOR TEMP) (K) ELEVATION DZQF TV XE (M) (M) XA (M) (K) (M) 1.232 . 454 685.8 .659 .524 1.232 .536 730.0 .688 .523 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS (M) (K) W/M**2 W/M##2 ELEVATION TEMP XE HEAT FLUX W/M**2 W/M##2 (M) (K) .013 526.5 .097 5.45E+04 .096 5.48E+04 .051 528.7 .111 5.47E+04 .013 527.6 525.2 .116 5.44E+04 .051 530.1 .111 5.51E+04 .063 .125 .089 528.9 525.5 5.44E+04 5.46E+04 .063 . 115 .114 . 135 529.9 . 125 5.48E+04 525.7 5.46E+04 .089 .134 523.3 5.41E+04 . 114 526.6 5.47E+04 . 140 . 144 522.4 . 153 5.41E+04 . 140 522.9 . 144 5.41E+04 . 165 .317 533.4 .211 5.55E+04 . 165 522.0 . 153 5.41E+04 . 394 .240 550.7 5.73E+04 536.5 .211 5.60E+04 . 317 .241 .470 547.9 .270 5.78E+04 . 394 558.3 5.84E+04 563.2 6.00E+04 .470 .546 .301 558.0 .272 6.05E+04 .333 .622 549.6 6.05E+04 .546 581.4 .306 7.02E+04 .698 .370 . 348 611.4 8.16E+04 9.03E+04 .622 609.6 .396 698.9 726.3 9.39E+04 .775 .414 8.86E+04 .698 825.1 .775 . 445 .851 .462 9.298+04 828.0 9.19E+04 .508 882.4 8.26E+04 .927 .851 895.3 .491 8.56E+04 1.003 926.1 .550 8.05E+04 8.34E+04 933.1 .536 .927 -579 7.26E+04 1.003 973.6 8.25E+04 1.079 951.3 .590 1.143 951.2 7.42E+04 982.3 .619 7.20E+04 .622 1.079 .640 7.60E+03 7.37E+04 9.53E+02 1.181 919.5 6.22E+04 1.143 986.2 .651 1.244 930.6 .671 7.93E+04 948.5 6.48E+04 4.75E+03 1.181 .669 .699 7.13E+04 1.283 933.6 .690 6.93E+04 1.244 972.9

1.321

983.0

.708

INEL POST-CHE EXPERIMENT NO. 204

6.61E+04

INEL POST-CHE EXPERIMENT NO. 204 POINT SERIAL NO. 1204.090 (TIME= 167.50 SEC) LOOP PRESSURE (PE-3) 16.08 MPA FCV TEMPERATURE (TE-FCV-1T) 548.7 K LHP INLET ENTHALPY 1.210E+Q6 J/KG TEST SECTION: PRESSURE 3.49 MPA SAT TEMP 515.45 K 21.21 KG/SEC-M**2 MASS FLUX INLET QUALITY .092 INLET ENTHALPY 1.210E+06 J/KG QUENCH FRONT: ELEVATION .846 M VELOCITY .0040 M/SEC QUALITY . 441 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION DZQF TV XA ELEVATION XE (K) (M) (M) 1.232 . 386 650.2 .642 .530 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE (M) (K) W/M**2 W/M**2 526.6 5.49E+04 .013 .097 .111 .051 528.6 5.51E+04 .116 .063 525.7 5.50E+04 5.52E+04 .089 529.0 . 126 .114 525.7 . 135 5.51E+04 5.49E+04

. 140 524.3 . 145 . 155 .165 523.4 5.49E+04 .317 532.0 .212 5.58F+04 5.72E+04 . 394 545.7 .242 .272 5.71E+04 .470 542.4 554.1 5.87E+04 .546 .302 .622 541.2 .332 5.77E+04 .698 6.30E+04 569.1 . 364 .775 600.4 .400 7.44E+04 .851 735.1 . 4444 9.41E+04 .927 837.3 .491 8.55E+04 1.003 886.3 .533 7.86E+04 1.079 923.1 .572 7.14E+04 919.9 .604 7.28E+04 1.143 2.48E+04 1.181 889.2 .621 5.84E+04 1.24E+05 1.244 855.8 .661 6.47E+04 1.283 .685 912.0 .702 1.321 966.6 6.07E+04

	INEL POS	T-CHE EX	PERIME	NT NO	. 204		
POINT SERIA			(TIME	= 177	.50 SEC)		
(IN FERRED V)					
LOOP PRESSU				16.11			
FCV TEMPERA		CV-11)		548.5			
LHP INLET E			1.20	19E+06	J/KG		
TEST SECTIO	IN:						
PRESSU	IRE			3.49			
SAT TE	MP		5	15.46	K		
MASS F	LUX			21.19	KG/SEC-	M**2	
INLET	QUALITY			.092			
INLET	ENTHALPY		1.20	9E+06	J/KG		
QUENCH FROM	IT:						
ELEVAT				.886	м		
VELOCI					M/SEC		
QUALIT				.454			
NET LHP POW		1D		0.0			
VAPOR TEMPE (INFERRED V ELEVATION (M)	APOR TEMP		T LOCA	XA	INFORMAT	ION	
1.232	. 346	632.0	.672	.567			
WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	10N I	NEORMATI	ON	
ELEVATION		XE				HEAT LOSS	
(M)	(K)			W/M	**2	W/M**2	
7.12							
.013	526.3	.09	7	5.51	E+04		
.051	528 2	1.1	1	5.52	E+04		
.063	116 5.52E+04						
.089	525.4 528.4	. 12		5.53			
. 114	525.3			5.53			
. 140	524.2			5.50			
. 165	523.2			5.50			
317	530.8	21		5 58			

.241

.271

.301

.331

. 362

. 394

. 433

.479

.524

.564

.595

.622

.687

.718

. 735

5.70E+04

5.69E+04

5.81E+04

5.71E+04

6.07E+04

6.31E+04

8.45E+04

9.29E+04

8.03E+04

7.11E+04

7.32E+04

1.30E+05

1.69E+05

6.74E+04

6.40E+04

. 394

.470

.546

.622

.698

.775

.851

.927

1.003

1.079

1.143

1.181

1.244

1.283

1.321

542.7

539.5

549.3

537.8

559.6

583.0

605.9

813.1

863.8

907.6

903.9

855.6

774.7

904.0

962.6

16.08 MPA

3.49 MPA

21.05 KG/SEC-M**2

548.4 K

1.209E+06 J/KG

515.47 K

.091

1.209E+06 J/KG

.901 M

.0028 M/SEC

POINT SERIAL NO. 1204.111 (TIME= 182.50 SEC)

(INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3)

LHP INLET ENTHALPY

PRESSURE

SAT TEMP

MASS FLUX

ELEVATION

VELOCITY

INLET QUALITY

INLET ENTHALPY

TEST SECTION:

QUENCH FRONT:

FCV TEMPERATURE (TE-FCV-1T)

INEL POST-CHE EXPERIMENT NO. 205 POINT SERIAL NO. 1205.011 (TIME= 148.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 16,10 MPA FCV TEMPERATURE (TE-FCV-1T) 549.6 K LHP INLET ENTHALPY 1.215E+06 J/KG TEST SECTION: PRESSURE 3.49 MPA SAT TEMP 515.48 K 23.09 KG/SEC-M**2 MASS FLUX INLET QUALITY .095 INLET ENTHALPY 1.215E+06 J/KG QUENCH FRONT: .462 M ELEVATION VELOCITY .0020 M/SEC QUALITY .436 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INTERRED VAPOR TEMP) TV XE ELEVATION DZQF XA (K) (M) (M) .770 1,232 890.0 1.006 .660 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS TEMP XE ELEVATION M/Waa5 M/M##5 (M) (K) 1.13E+05 527.0 . 104 .013 .051 529.3 . 131 1.14E+05 . 140 1.13E+05 526.1 .063 . 158 1.14E+05 .089 529.6 527.3 .176 1.135+05 . 114 .140 1.13E+05 525.4 . 194 522.9 .212 1.13E+05 . 165 537.5 .321 1.15E+05 .317 .377 1.19E+05 562.8 . 394 ,470 750.4 . 443 1.53E+05 .546 919.6 .509 1,25E+05 1.23E+05 .622 975.4 .568 1.23E+05 .627 .698 1026.7 .686 .775 1075.6 1.23E+05 .851 .745 1120.8 1.22E+05 .927 1168.4 .802 1.19E+05 1.18E+05 1.003 1212.5 .859 .913 1.06E+05 5.76E+03 1.079 1150.2 1.143 1199.6 .956 1.08E+05 5.29E+03 1140.2 .980 9.57E+04 1.49E+04 1.181

1.021

1.048

1.076

1.09E+05

1.15E+05

1.16E+05

1.245

1,283

1.321

1196.4

1149.7

1165.7

QUALIT NET LIP POW	Y	D	.460 0.0 W	
	RATURE MEA		CATION INFORMAT	ION
(INFERRED V	DZQF	TV XE	XA	
(M)	(M)	(K)		
1.232	.331	620.0 .69	5 .594	
WALL TEMPER	ATURE MEAS	SUREMENT LOC	ATION INFORMATI	ON
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M##2
.013	526.1	.096	5.51E+04	
.051	528.0	.111	5.52E+04	
.063	525.2	.115	5.51E+04	
.089	528.1	. 125	5.53E+04	
.114	525.1	. 135	5.50E+04	
. 140	524.1	. 144	5.51E+04	
. 165	523.2	. 154	5.50E+04	
.317	530.3	.212	5.58E+04	
. 394	541.4	.242	5.69E+04	
.470	538.3	.272	5.65E+04	
.546	547.3	. 302	5.78E+04	
.622	536.3	.332	5.68E+04	
.698	556.0	. 363	5.99E+04	
.775	577.9	. 395	6.20E+04	
.851	591.8	.429	6.86E+04	
.927	802.2	.476	1.08E+05	
1.003	851.1	.526	8.37E+04	
1.079	899.1	.567	7.29E+04	
1.143	894.2	.600	7.60E+04	
1.181	816.2	.633	1.79E+05	
1.244	678.9	.710	1.69E+05	
1.283	898.2	. 741	6.50E+04	
1.321	958.3	.757	6.02E+04	

1170.2

1.035

1.13E+05

INEL POST-CHE EXPERIMENT NO. 205

POINT SERIAL NO. 1205,021 (TIME= 200.50 SEC) POINT SERIAL NO. 1205.031 (TIME= 279.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.14 MPA LOOP PRESSURE (PE-3) 16.07 MPA FCV TEMPERATURE (TE-FCV-1T) 549.3 K FCV TEMPERATURE (TE-FCV-1T) 549.3 K LHP INLET ENTHALPY 1.213E+06 J/KG LHP INLET ENTHALPY 1.213E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.49 MPA 3.48 MPA PRESSURE SAT TEMP 515.48 K SAT TEMP 515.44 K MASS FLUX 23.21 KG/SEC-M**2 MASS FLUX 22.74 KG/SEC-M**2 INLET QUALITY INLET QUALITY .094 .094 1.213E+06 J/KG INLET ENTHALPY 1.213E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .542 M ELEVATION ELEVATION .618 M VELOCITY .0012 M/SEC VELOCITY .0008 M/SEC QUALITY .488 QUALITY .538 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE ELEVATION DZQF TV XE XA XA (M) (M) (M) (M) (K) (K) 1.232 .690 870.0 .968 .646 1.232 .614 830.0 .966 .669 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS H/M**2 W/M**2 (M) (K) W/M**2 (M) (K) W/M**2 . 103 .013 525.9 . 103 1.13E+05 .013 524.5 1.121+05 .051 .051 527.7 . 130 1.13E+05 525.9 . 130 1.12E+05 .063 525.2 . 139 1.13E+05 .063 523.7 . 139 1.12E+05 .089 527.9 . 157 1.13E+05 .089 525.6 . 157 1.12E+05 525.5 .175 .175 1.12E+05 .114 1.13E+05 . 114 523.8 . 140 . 193 .140 . 193 524.7 1.12E+05 525.5 1.13E+05 .165 .211 .211 522.4 1,12E+05 . 165 521.7 1.12E+05 .317 .319 1.12E+05 529.8 1.13E+05 .317 526.5 .319 1.12E+05 531.3 . 394 543.4 . 374 1.14E+05 . 394 . 373 .428 .429 1.17E+05 .470 529.9 1.13E+05 .470 547.3 .546 781.7 .492 1.43E+05 .546 547.3 .483 1.15E+05 .554 1.18E+05 .622 690.6 .541 1.25E+05 .622 966.8 .599 .698 997.5 1.13E+05 1019.4 .610 1.16E+05 .698 1068.2 1.16E+05 .775 1054.1 .653 1.11E+05 .775 . 665 .708 1116.5 .720 1.13E+05 .851 1111.4 1.12E+05 .851 1.13E+05 .927 1155.6 . 763 1.14E+05 .927 1166.5 .774 .827 1.13E+05 1.003 1213.1 1.12E+05 1.003 1205.7 .818 1.07E+05 6.24E+03 1176.4 5.06E+03 1.079 1165.4 .879 1.03E+05 1.079 .872 1.143 1210.4 .920 1.04E+05 5.55E+03 1.143 1211.0 .915 1.07E+05 5.53E+03 .940 .943 1.181 1155.2 9.24E+04 1.51E+04 1.181 1158.8 9.60E+04 1.44E+04 .982 1.245 1195.1 .981 1.07E+05 1.245 1198.4 1.04E+05 1.283 1155.2 1.008 1.13E+05 1.283 1154.0 1.008 1.14E+05

1.321

INEL POST-CHE EXPERIMENT NO. 205

1.036

1168.2

1.14E+05

POINT SERIA		.041 (11	ME= 554.50 SEC		POINT SERIA (INFERRED V	APOR TEMP	1	*	635.50 SEC)
LOOP PRESSI	DE (DE - 3)		16 11 MPA		LOOP PRESSU FCV TEMPERA LHP INLET E	REIPE-31			6.08 MPA	
ECV TEMPERA	TURE (TE-FCV	-171	16.11 MPA 549.2 K 213E+06 J/KG		FCV TEMPERA	TURE (TE-F	CV-11)		49.2 K	
THE INIET F	NTHAL PY	1	213F+06 1/KG		THE INLET E	NTHALPY		1.213	E+06 1/KG	
TEST SECTION	N+		L 13L 100 07 110		TEST SECTIO	N:				
PRESSU	RF		3.48 MPA		PRESSU	RE			3.49 MPA	
SAT IF	MP		515.44 K		SAT TE	MP		51	5.45 K	
MASS F	LUX		22.64 KG/SEC-	M##2	MASS F	LUX		2	2.63 KG/SEC	-M**2
INLET	CUALITY		094		INLET	QUALITY			.094	
INLET	ENTHALPY	1.	213E+06 J/KG		INLET	ENTHALPY		1,213	3.49 MPA 5.45 K 2.63 KG/SEC .094 E+06 J/KG	
QUENCH FRON	1:				QUENCH FRON	T:			Contract Contract	
ELEVAT	ION		.802 M		ELEVAT	ION			.844 M	
VELOCI	IY		.0006 M/SEC		VELOC1	TY			0005 M/SEC	
QUALIT	Y		.558		QUALIT	Y			.581	
NET LHP POW	ER TO FLUID		0.0 W		TEST SECTION PRESSUR SAT TE MASS FEMALET INLET INLET QUENCH FROM ELEVAT VELOCI QUALIT NET LHP POW	ER TO FLU	10		0.0 W	
VAPOR TEMPE	RATURE MEAS APOR TEMP)	UREMENT LO	CATION INFORMA	TION	VAPOR TEMPE (INTERRED V	RATURE ME		LOCAT	ION INFORMA	TION
ELEVATION	DZQF	TV XE	XA		ELEVATION	DZQF	IV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.430 6	80.0 .81	3 .651		1,232	.388	655.0	.808	. 664	
WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION	WALL TEMPER ELEVATION	ATURE MEA	SUREMENT	LOCATI	ON INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	M/W**5	(M)	(K)			M/W**5	W/M**2
.013	524.1	. 101	8.93E+04		.013	524.0	, 101		8.94E+04	
.051	525.0	. 123	8.93E+04		.051	524.8	. 123		8.94E+04	
.063	523.4		8.93E+04		.063	523.2	. 130		8.94E+04	
.089	524.6	. 145	8.93E+04		.089	524.3	. 145		8.94E+04	
. 114	523.1	. 159	8.93E+04		. 114	522.9	, 159		8.94E+04	
. 140	524.3	. 174	8.93E+04		. 140	524.2	. 174		8.94E+04	
. 165	522.2	. 188	8.93E+04		. 165	522.2	. 188		8.94E+04	
.317	525.0	.276	8.94E+04		. 317	524.7	.275		8.94E+04	
. 394	525.4	.319	8.94E+04		. 394	524.9	. 319		8.94E+04	
.470	524.2	. 363	8.94E+04		. 470	523.8	. 363		8.94E+04	
.546	525.2	.407	8.96E+04		.546	524.1	.406		8.95E+04	
.622	523.8	.451	8.94E+04		.622	522.9	, 450		8.94E+04	
.698	534.4	. 494	9.00E+04		.698	529.0	. 494		9.01E+04	
.775	585.1	.541	1.01E+05		.775	546.7	.538		9.21E+04	
.851	952.0	.589	9.51E+04		.851	738.1	.586		1.00E+05	
.927	994.6	.636	9.52E+04		.927	991.6	.632		8.99E+04	
1.003	1048.8	.682	9.61E+04		1.003	1046.8	.676		9.00E+04	
1.079	1069.0	.729	9.65E+04		1.079	1052.7	.720		9.05E+04	
1.143	1086.8	. 768	9.441+04		1.143	1079.8	. 757		9.04E+04	
1.181	1063.2	. 790	8.63E+04	6.11E+03	1.181	1056.7	. 779		9.08E+04	
1.244	1065.8	.826	8.85E+04		1.244	1047.3	.815		8.76E+04	
1.283	1056.4		9.23E+04		1.283	1039.7			9.46E+04	
1.321	1072.6	.871	9.24E+04		1.321	1060.8	. 860		9.30E+04	

1.003

1.079

1.143

1.181

1.244

1.283

1.321

957.3

1062.1

1060.5

1096.7

1068.5

1054.6

1036.6

1063.4

.630

.678

.722

.759

.781

.816

.837

.858

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INEL POST-CHE EXPERIMENT NO. 205
POINT SERIAL NO. 1205.061 (TIME= 790.50 SEC)
(INFERRED VAPOR TEMP)
                                   16.07 MPA
LOOP PRESSURE (PE-3)
FCV TEMPERATURE (TE-FCV-1T)
                                  548.9 K
LHP INLET ENTHALPY
                              1.211E+06 J/KG
TEST SECTION:
                                   3.48 MPA
     PRESSURE
     SAT TEMP
                                 515.37 K
    MASS FLUX
                                  22.45 KG/SEC-M**2
     INLET QUALITY
                                    .093
                               1.211E+06 J/KG
     INLET ENTHALPY
QUENCH FRONT:
    ELEVATION
                                    .920 M
     VELOCITY
                                   .0005 M/SEC
    QUALITY
                                    .626
NET LHP POWER TO FLUID
                                    0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
ELEVATION
             DZQF
                                    XA
             (M)
                      (K)
  (M)
1.232
             .312
                     600.0
                             .809 .709
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                   HEAT FLUX
                                                  HEAT LOSS
ELEVATION
              TEMP
                          XE
                                    W/M**2
                                                   W/M**2
 (M)
               (K)
  .013
              523.9
                         .100
                                   8.85E+04
                         . 122
              524.5
                                   8.85E+04
  .051
                         .129
              523.0
                                   8.86E+04
  .063
                                    8.85E+04
  .089
              523.9
                         . 144
                                   8.86E+04
                         . 158
  .114
              522.7
                         .173
                                    8.86E+04
              524.1
  . 140
                         . 188
              521.9
                                   8.86E+04
  . 165
                                   8.86E+04
  .317
              524.3
                         .275
                                   8.86E+04
  . 394
              524.4
                         .319
                         .362
                                   8.85E+04
              523.4
  .470
  .546
              523.8
                          .406
                                   8.85E+04
                                   8.86E+04
  .622
              522.4
                         .450
              525.5
                          .493
                                   8.90E+04
  .698
                                    9.03E+04
              533.5
                          .538
  .775
              549.5
                          .583
                                    9.24E+04
  .851
```

1.01E+05

9.14E+04

8.93E+04

8.88E+04

8.95E+04

8.11E+04

8.82E+04

8.74E+04

	INEL POS	T-CHE EXPERI	MENT NO. 205	
POINT SERIA			ME= 902.50 SEC)
LOOP PRESSU	RE(PE-3)		16.09 MPA	
FCV TEMPERA	TURE (TE-F	CV-II)	549.1 K	
LHP INLET E	NTHALPY	1.	212E+06 J/KG	
TEST SECTIO	N:			
PRESSU	RE		3.48 MPA	
SAT TE	MP		515.41 K	
MASS F	LUX		22.60 KG/SEC	-M**2
INLET	QUALITY		.093	
INLET	ENTHALPY	1.	212E+06 J/KG	
QUENCH FROM				
ELEVAT	ION		.985 M	
VELOCI	IY		.0011 M/SEC	
QUALIT	Y		.554	
NET LHP POW	ER TO FLU	ID .	0.0 W	
(INFERRED V ELEVATION (M)	APOR TEMP	Total Control of the	XA XA	TION
1.232	.247	560.0 .68	8 .637	
LINE TEMPER	ATUDE MEA	CUDCHENT LOC	ATION INFORMAT	LON
ELEVATION			HEAT FLUX	HEAT LOSS
(M)	(K)	AL.	W/M**2	W/M##2
(14)	(10)		11/11/2	m/ +1 - L
.013	523.5	.099	7.16E+04	
.051	524.2		7.16E+04	
.063	522.7	. 123	7.16E+04	
.089	523.4	. 135	7.16E+04	
. 114	522.3	. 146	7.16E+04	
. 140	523.3		7.16E+04	
. 165	521.2	. 170	7.16E+04	
.317	523.4	,240	7.16E+04	
. 394	523.4		7.17E+04	
. 470	522.3	. 311	7.16E+04	
.546	523.5		7.16E+04	
.622	521.0		7.18E+04	
,698	523.3	.416	7.17E+04	
. 775	526.0		7.18E+04	
.851	530.2	.487	7.20E+04	
.927	553.8	,523	7.54E+04	
1.003	782.8	.565	9.31E+04	

.606

.638

.658

.697

.719

.739

7.77E+04

7.66E+04

8.58E+04

1.04E+05

7.96E+04

7.79E+04

934.3

937.8

930.0

843.8

953.3

999.7

1.079

1.143

1.181

1.244

1.283

16.13 MPA

3.51 MPA

45.31 KG/SEC-M**2

548.1 K

1.207E+06 J/KG

515.81 K

.090

1.207E+06 J/KG

. 348

.514 M

0.0 W

.0015 M/SEC

POINT SERIAL NO. 1209.011 (TIME= 224.50 SEC)

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION

(INFERRED VAPOR TEMP)
LOOP PRESSURE(PE-3)

LHP INLET ENTHALPY

PRESSURE

SAT TEMP

MASS FLUX

ELEVATION

VELOCITY

QUALITY

INLET QUALITY

NET LHP POWER TO FLUID

INLET ENTHALPY

TEST SECTION:

QUENCH FRONT:

FCV TEMPERATURE (TE-FCV-1T)

INEL POST-CHE EXPERIMENT NO. 209 POINT SERIAL NO. 1209.021 (TIME= 231.50 SEC) (INFERRED VAPOR TEMP) 16.10 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 548.1 K LHP INLET ENTHALPY 1.207E+06 J/KG TEST SECTION: 3.51 MPA PRESSURE SAT TEMP 515.82 K 45.25 KG/SEC-M**2 MASS FLUX .090 INLET QUALITY 1.207E+06 J/KG INLET ENTHALPY QUENCH FRONT: .524 M ELEVATION .0015 M/SEC VELOCITY . 354 QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) TV ELEVATION DZQF XE (K) (M) (M) 1.232 . 708 800.0 .721 .513 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION XE W/M##2 W/M**2 (M) (K) .013 524.4 .096 1.53E+05 .115 526.3 1.53E+05 .051 .121 523.7 1.52E+05 .063 .133 525.8 1.53E+05 .089 . 114 1.52E+05 524.2 . 146 . 158 1.52E+05 524.3 .140 522.6 .171 1.52E+05 . 165 .245 1.52E+05 .317 527.9 . 394 546.2 .283 1.54E+05 .470 565.2 .322 1.66E+05 . 367 2.00E+05 1000.9 . 546 .412 1.68E+05 .622 1062.4 .453 1.65E+05 .698 1090.2 .775 1117.8 .493 1.64E+05 .851 1145.5 .533 1.64E+05 .927 1177.9 .573 1.63E+05 1.65E+05 .613 1.003 1210.1 1174.9 1.55E+05 1.88E+03 .653 1,079 1192.3 .684 1.54E+05 6.77E+03 1.143 1.181 1151.6 .702 1.42E+05 1.48E+04 1184.5 .732 1.52E+05 1.245

.752

.776

1.70E+05

2.30E+05

1169.7

742.5

1.283

	APOR TEMP		VC	XA	
ELEVATION (M)	DZQF (M)	TV (K)	XE	^^	
1.232	. 718	870.0	.695	.464	
WALL TEMPER	ATURE MEA	SUREMEN	LOCAT	ION INFORMAT	ION
ELEVATION	TEMP	XI	E	HEAT FLUX	HEAT LOSS
(M)	(K)			M/W##5	M/W**5
.013	525.1	. 09	96	1.52E+05	
.051	527.1	. 1	14	1.52E+05	
.063	525.1	. 17	21	1.52E+05	
.089	527.4	. 1.	33	1.52E+05	
.114	525.9	. 10	46	1.52E+05	
. 140	525.9	. 15	58	1.52E+05	
. 165	524.1	. 1	70	1.52E+05	
. 317	529.7	. 21	45	1.53E+05	
. 394	549.8	. 21	83	1.55£+05	
.470	576.5	. 37	23	1.74E+05	
.546	1020.1	. 30	67	1.86E+05	
.622	1066.8	. 440	09	1.52E+05	
.698	1092.6	. 841	46	1.51E+05	
.775	1120.3	. 141	83	1.52E+05	
. 851	1148.4	. 5	20	1.53E+05	
.927	1180.2	. 5		1.51E+05	
1.003	1213.7	.59	94	1.53E+05	
1.079	1175.2	. 6	31	1.45E+05	5.25E+03
1.143	1195.0	. 6	60	1.45E+05	6.22E+03
1.181	1152.6	.6	77	1.34E+05	1.49E+04
1.245	1185.9	. 70		1.43E+05	
1.283	1176.5	. 73		1.54E+05	
1.321	813.3	. 71	48	2.45E+05	

FCV TEMPERATURE (TE-FCV-1T)	16.13 MPA	POINT SERIAL NO. 1209.041 (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) FCV TEMPERATURE (IE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	16.14 MPA 547.7 K 1.205E+06 J/KG 3.51 MPA 515.85 K 45.05 KG/SEC-M**2
VAPOR TEMPERATURE MEASUREME (INFERRED VAPOR TEMP)	NT LOCATION INFORMATION	VAPOR TEMPERATURE MEASUREMEN (INFERRED VAPOR TEMP)	NE LOCATION INFORMATION
ELEVATION DZQF TV (M) (M) (K)	XE XA	ELEVATION DZQF TV (M) (M) (K)	XE XA
1.232 .644 820.0	.688 .481	1.232 .642 770.0	.689 .504
WALL TEMPERATURE MEASUREMEN ELEVATION TEMP X (M) (K)	T LOCATION INFORMATION E HEAT FLUX HEAT LOSS W/M**2 W/M**2	WALL TEMPERATURE MEASUREMEN ELEVATION TEMP XI (M) (K)	HEAT FLUX HEAT LOSS W/M**2 W/M**2
.051 528.8 .1 .063 527.3 .1 .089 528.8 .1 .114 527.8 .1 .140 528.2 .1 .165 526.1 .1 .317 532.7 .2 .394 539.5 .2 .470 543.0 .3 .546 594.4 .3 .622 1022.7 .4 .698 1068.3 .4 .775 1097.4 .4 .851 1123.2 .5 .927 1154.7 .003 1187.2 .5 .1079 1159.4 .6 .143 1169.8 .6 .181 1133.4 .6 .181 1133.4 .6	95	.013 526.8 .09 .051 528.8 .1 .063 527.3 .1 .089 528.8 .1 .114 527.8 .1 .140 528.2 .1 .165 526.0 .1 .317 532.7 .2 .394 539.3 .2 .470 542.8 .3 .546 592.4 .3 .622 1021.7 .4 .698 1068.9 .4 .775 1098.0 .4 .775 1098.0 .4 .775 1098.0 .4 .775 1098.0 .5 .851 1123.6 .5 .927 1155.2 .5 1.003 1187.6 .5 1.079 1159.8 .6 1.143 1170.3 .6 1.143 1170.3 .6 1.245 1146.1 .6	13

INEL POST-CHE EXPERIMENT NO. 209 POINT SERIAL NO. 1209.061 (TIME= 292.50 SEC) (INFERRED VAPOR TEMP) 16.12 MPA 547.9 K

LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.206E+06 J/KG TEST SECTION: PRESSURE 3.51 MPA SAT TEMP 515.86 K MASS FLUX 45.05 KG/SEC-M**2 .089 INLET QUALITY INLET ENTHALPY 1.206E+06 J/KG QUENCH FRONT: ELEVATION .620 M VELOCITY .0016 M/SEC .400 QUALITY NET LHP POWER TO FLUID 0.0 W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF XE (M) (M) (K)

1.232 730.0 .689 .524 .612 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS HEAT FLUX ELEVATION TEMP XE W/M##2 W/M##2 (M) (K) .013 .095 527.1 1,50E+05 .114 .051 528.9 1.50E+05 527.2 .120 1.50E+05 .063 .089 528.6 . 132 1.51E+05 527.5 . 145 1.50E+05 . 114 . 140 527.9 . 157 1.50E+05 . 165 526.0 . 169 1.50E+05 532.2 .244 1.51E+05 .317 . 394 536.9 .281 1.51E+05 .318 .470 538.1 1.52E+05 .546 570.0 . 357 1.58E+05 .622 937.6 .401 2.01E+05 .698 1078.5 . 141414 1.53E+05 .775 1111.7 .482 1.49E+05 .851 1135.1 .518 1.48E+05 .927 1166.5 .554 1.47E+05 1197.8 1.47E+05 1.003 .590 5.27E+03 1.079 1167.6 .626 1.41E+05 1.143 1180.4 .655 1.40E+05 5.96E+03 1.36E+04 1,181 1145.5 .671 1.30E+05 .699 1.40E+05 1.245 1153.4 .721 2.27E+05 1.283 684.6 1.321 564.7 . 745 1.56E+05

POINT SERIA (INFERRED V LOOP PRESSU FCV TEMPERA	L NO. 1	209.051	(TIME=	290	.50 SEC)	
LOOP PRESSU	REIPE-3)		1	6.11	MPA	
FCV TEMPERA	TURE (TE-	FCV-1T)	5	47.9	K	
THE INTEL E	NTHALPY		1.206	L+06	J/KG	
TEST SECTIO	N:					
PRESSU	RE			3.51	MPA	
SAT TE	MP		51	5.86	K	
MASS F	LUX		14	4.96	KG/SEC-	M##5
INLET	QUALITY			.089		
TEST SECTION PRESSUR SAT TE MASS FINLET INLET QUENCH FRON	ENTHALPY		1.206	E+06	J/KG	
QUENCH FRON	1:					
VELOCI	IY			0016	M/SEC	
QUALIT	Y			.398		
VELOCI QUALIT NET LHP POW	ER TO FL	UID		0.0	W	
VAPOR TEMPE			NT LOCAT	ION	INFORMAT	ION
(INFERRED V	APOR TEM	IP)				
ELEVATION	DZQF	TV	XE	XA		
(M)	(M)	(K)				
1.232	.615	800.0	.689	.490		
WALL TEMPER						
ELEVATION	TEMP	XI		HEAT	FLUX	HE

WALL TEMPER	ATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2
.013	527.1	.095	1.50E+05	
. 051	528.9	.114	1.50E+05	
.063	527.2	. 120	1.51E+05	
.089	528.6	. 132	1.51E+05	
. 114	527.5	. 145	1.51E+05	
. 140	527.9	. 157	1.51E+05	
. 165	526.0	. 169	1.51E+05	
. 317	532.3	.244	1.51E+05	
. 394	537.1	.281	1.51E+05	
.470	538.5	.318	1.52E+05	
.546	572.0	.357	1.58E+05	
.622	884.0	.401	2.01E+05	
.698	1078.5	141414	1.52E+05	
.775	1111.0	.481	1.48E+05	
. 851	1134.2	.518	1.47E+05	
.927	1165.4	.554	1.46E+05	
1.003	1196.9	.590	1.47E+05	
1.079	1166.7	.626	1.41E+05	5.18E+03
1.143	1179.4	.654	1.40E+05	5.73E+03
1.181	1144.4	.671	1.30E+05	1.34E+04
1.245	1152.9	.699	1.39E+05	
1.283	704.3	.722	2.42E+05	
1.321	566.1	.747	1.56E+05	

549.7

1.321

.759

1.52E+05

POINT SERIAL NO. 1209.071 (TIME= 325.50 SEC) POINT SERIAL NO. 1209.081 (TIME= 332.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 16.11 MPA 16.08 MPA FCV TEMPERATURE (TE-FCV-1T) 547.8 K FCV TEMPERATURE(TE-FCV-1T) 547.7 K LEP INLET ENTHALPY 1.2065+06 J/KG LHP INLET ENTHALPY 1.206E+06 J/KG TEST SECTION: TEST SECTION: 3.51 MPA PRESSURE PRESSURE 3.51 MPA SAT TEMP SAT TEMP 515.82 K 515.82 K MASS FLUX 45.12 KG/SEC-M**2 MASS FLUX 44.99 KG/SEC-M**2 INLET QUALITY INLET QUALITY .089 .089 INLET ENTHALPY 1.206E+06 J/KG 1,206E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .675 M ELEVATION .688 M VELOCITY .0018 M/SEC VELOCITY .0018 M/SEC QUALITY .424 QUALITY . 431 NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) TV TV ELEVATION DZQF ELEVATION DZQF XA (M) (M) (M) (K) (K) (M) .703 .580 1.232 1.232 .544 650.0 .557 740.0 .702 .529 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 W/M##2 W/M##2 W/M##2 (M) (K) (M) (K) 1.50E+05 .013 526.9 1.50E+05 .013 527.0 .095 528.7 1.50E+05 .051 528.6 1.50E+05 .051 . 113 .113 527.0 .119 1.50E+05 .063 526.9 .119 1.50E+05 .063 .089 528.0 .132 1.50E+05 .089 527.9 .132 1.50E+05 .114 527.2 . 144 1.50E+05 . 114 527.1 . 1414 1.50E+05 527.6 . 156 1.50E+05 . 140 527.6 .156 1.50E+05 .140 .165 . 165 525.9 . 169 1.50E+05 525.9 .169 1.50E+05 .243 .317 531.2 .243 1.50E+05 .317 531.0 1.50E+05 . 394 533.8 .280 1.51E+05 . 394 533.3 .280 1.51E+05 .470 533.9 .317 1.51E+05 .470 533.4 .317 1.51E+05 1.53E+05 .546 549.6 .546 551.7 . 354 . 354 1.53E+05 . 392 1.65E+05 .622 .622 563.0 . 393 556.9 1.56E+05 .698 .698 1003.5 .438 2.00E+05 914.9 .437 2.08E+05 .482 1.60E+05 .775 1098.6 1.62E+05 .775 1105.0 .482 .521 1.56E+05 1133.6 .851 1136.2 .851 .521 1.55E+05 .559 1.55E+05 .927 .559 1.53E+05 .927 1168.5 1166.6 .597 .597 1.52E+05 1.53E+05 1.003 1200.0 1.003 1201.3 1.079 1174.1 .634 1.48E+05 2.66E+03 1.079 1174.0 . 634 1.48E+05 3.06E+03 1.143 1.46E+05 4.76E+03 5.69E+03 1186.3 .664 1.143 1185.7 1.45E+05 .664 1155.1 1.36E+05 1.19E+04 1.181 1155.2 1.36E+05 1.29E+04 1.181 .681 .681 .717 2.13E+05 1.244 1021.6 1.245 1082.9 .720 2.40E+05 .740 . 744 1.283 560.7 1.58E+05 1.283 555.1 1.55E+05

1.321

548.0

.763

1.52E+05

POINT SERIA	AL NO. 12:	1.611 (10	ME= 171.50 SEC	-M**2	POINT SILLA	I. NO. 12	11.021	CIME	= 139.50 SEC)
LINFERRET V	ALOR LEMP				(: NY ERRED V	APOR IEM				
LOOP PRESSU	IRE(PE-3)		15.12 MPA		LOOF PRESSU	RE(PE-3)			16.22 MFA	
FCV TEMPERA	ATURE (TE-FC	V-11)	547.6 K		FCY TEMPERA	TURE (TE-	CY-11)		547.7 K	
TEST SECTIO	NTHALPY N:	1,	16.12 MPA 547.6 K 205E+06 J/KG		I INFERRED V LOOF PRESSU FCV TEMPERA LHP INLET E TEST SECTIO	NTHALPY N:		1.20	5E+06 J/KG	
PRESSU	IRE		3.51 MPA		PRESSU	RE			3.51 MPA	
SAT TE	MP		515 83 K		SAT TE	MP		5	15 81 K	
MASS F	LUX		29 31 KG/SEC	-M##2	MASS F	LUX			29.40 KG/SEC	-M*#2
INLET	OUAL LTV		088		INLET	OUAL LTY			088	
INLET	ENTHAL PY	1.	205E+06 J/KG		INLET	ENTHAL PY		1.20	3.51 MPA 15.81 K 29.40 KG/SEC .088 5E+06 J/KG	
QUENCH FRON	IT:		erese and all the		QUENCH FROM	T:				
FIFVAT	ION		410 M		FLEVAT	LON			465 M	
VELOCI	TY		0024 M/SEC		VELOCI	TY			0018 M/SEC	
OUALLI	Y		379		QUALLI	Y			412	
NET THE POW	ER TO FLUI	0	.410 M .0024 M/SEC .379 0.0 W		NET THE POW	FR TO FLE	110		.465 M .0018 M/SEC .412 0.0 Y	
VAPOR TEMPE (INFERRED V			CATION INFORMA	TION	VAPOR TEMPE	APOR TEMP)		TION INFORMA	TION
ELEVATION			XA		ELEVATION	DZQF	IV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.822	920.0 .94	4 .604		1.232	.767	895.0	. 934	.610	
WALL TEMPER	TATURE MEAS	UREMENT LOC	ATION INFORMAT	HEAT LOSS	WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION INFORMAT	ION
ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2	· (M)	(K)			W/M**2	W/M**2
.013	527.2	.097	1.37E+05 1.37E+05		.013	525.8	.097		1.37E+05	
.051	529.3	. 123	1.37E+05		.051	527.7	, 123		1.37E+05	
.063	526.4	. 131	1.37E+05		.063	525.3	. 131		1.37E+05	
.089	529.8	. 1/19	1.37E+05		.089	528.2			1.37E+05 1.37E+05	
. 114	529.8 527.6	. 166	1.37E+05		. 114	526.4			1.37E+05	
. 140	526.1 524.4	. 183	1.37E+05		. 140	525.5			1.36E+05	
. 165	524.4		1.37E+05		. 165	523.6	.200		1.36E+05	
.317	542.7	. 305	1.40E+05		.317	534.9 564.0 759.0	. 304		1.38E+05	
.394	680.7	. 365	1.81E+05		. 394	564.0	. 357		1.43E+05	
.470	914.5	.429	1.56£+05		. 470	759.0	.416		1.72£+05	
.546	972.9		1.46E+05		.546	953.3	.476		1.47E+05 1.46E+05	
.622	1024.3	.541	1.46E+05		.622	1007.3	.531		1.46±+05	
.698	1058.7	.596	1.43E+05		.698	1050.7	.586		1.42E+05 1.43E+05 1.41E+05	
.775	1104.1	.650	1.42E+05		.775	1096.9	.639		1.43E+05	
.851	1141.5	.703	1.40E+05		.851	1137.3	. 693		1.41E+05	
.927	1175.9	.756	1,39E+05		.927	1175.6	.746		1.38E+05	
1.003	1215.3	.808	1.38E+05		1.003	1216.8			1.38E+05	
1.079	1158.3	. 858	1.25E+05	7.84E+03 7.38E+03 1.88E+04	1.079	1168.4			1.26E+05 1.27E+05	7.13E+03
1,143	1198.8	.897	1.27E+05	7.38E+03	1,143	1204.9	887		1.27E+05	8.10E+03
1,181	1146.1	.920	1.13E+05	1.88E+04	1,181	1152.4	,910		1.13E+05	1.87E+04
1.245	1202.7	.958	1.27E+05		1.245	1206.9	. 948		1.27E+05	
1.283	1161.9		1.36E+05		1.283	1168.2	.972		1.13E+05 1.27E+05 1.36E+05	
1.321	1148.0		1.36E+05		1.321	1159.9	.998		1.34E+05	
	1110.0	1.005					1234			

1115.3

.931

1.63E+05

INEL POST-CHE EXPERIMENT NO. 211

POINT SERIAL NO. 1211.041 (TIME= 231.50 SEC) POINT SERIAL NO. 1211.031 (TIME= 220.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) 16.22 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 16.10 MPA FCV TEMPERATURE (TE-FCV-1T) 547.5 K FCV TEMPERATURE (TE-FCV-1T) 547.3 K LHP INLET ENTHALPY 1.204E+06 J/KG LHP INLET ENTHALPY 1.203E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.51 MPA PRESSURE 3.51 MPA SAT TEMP SAT TEMP 515.81 K 515.83 K MASS FLUX 29.38 KG/SEC-M*#2 29.38 KG/SEC-M**2 MASS FLUX INLET QUALITY .087 INLET QUALITY .088 1.203E+06 J/KG INLET ENTHALPY 1.204E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .565 M ELEVATION .552 M .0012 M/SEC VELOCITY .0012 M/SEC VELOCITY QUALITY QUALITY .442 .436 0.0 W 0.0 W NET LHP POWER TO FLUID NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) TV ELEVATION DZQF IV XA ELEVATION DZQF XE XA (K) (M) (M) (K) (M) (M) 1.232 1.232 .667 830.0 .851 .589 .680 800.0 .865 .616 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M##2 W/M##2 W/M##2 W/M##2 (K) (M) (K) (M) .013 525.0 1.26E+05 .013 525.2 .096 1.25E+05 .095 .051 526.8 .119 1.26E+05 .051 527.0 .119 1.25E+05 525.0 . 127 1.25E+05 .063 525.3 .127 1.25E+05 .063 1.25E+05 .089 527.2 . 143 1.26E+05 .089 527.4 . 143 . 159 1.25E+05 . 158 1.26E+05 . 114 525.4 . 114 525.1 . 140 . 174 . 174 1.25E+05 525.9 1.24E+05 .140 525.5 . 165 524.0 . 190 1.25E+05 524.5 . 190 1.24E+05 . 165 .317 530.5 .285 1.26E+05 .317 530.3 .284 1.25E+05 .394 540.7 .333 1,28E+05 . 394 538.6 .332 1.26E+05 .379 1.28E+05 .470 541.6 1.27E+05 .470 545.2 .381 1.39E+05 670.8 .432 1.42E+05 .546 603.9 .430 .546 .479 .622 991.2 .482 1.26E+05 .622 995.1 1.25E+05 1031.3 .531 1.34E+05 .698 1029.2 .527 1.27E+05 .698 1071.9 .580 1.32E+05 .775 1067.9 .575 1.28E+05 .775 1.28E+05 .851 1109.5 .630 1.33E+05 .851 1104.9 .624 .672 1.29E+05 1150.5 .680 1.33E+05 .927 1145.2 .927 .721 .731 1.003 1190.7 1.33E+05 1.003 1185.4 1.28E+05 1.22E+05 3.70E+03 1.079 1164.9 .779 1.26E+05 2.52E+03 1.079 1162.7 .768 1.21E+05 4.94E+03 1,143 1187.4 .819 1.25E+05 4.57E+03 1.143 1183.7 .806 1.33E+04 1140.6 .828 1.10E+05 1.181 1142.8 .842 1.14E+05 1.27E+04 1.181 .864 1179.4 1.19E+05 1.245 1184.0 .879 1.24E+05 1.245 1.27E+05 .903 1.32E+05 1.283 1145.7 .887 1.283 1149.8

INEL POST-CHF EXPERIMENT NO. 211

1043.0

1.321

.918

2.05E+05

POINT SERIAL NO. 1211.051 (TIME= 289.50 SEC) POINT SERIAL NO. 1211.061 (TIME= 355.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 16.20 MPA LOOP PRESSURE(PE-3) 16.09 MPA FCV TEMPERATURE (TE-FCV-1T) 547.7 K FCV TEMPERATURE (TE-FCV-1T) 547.7 K LHP INLET ENTHALPY 1.205E+06 J/KG LHP INLET ENTHALPY 1.205E+06 J/KG TEST SECTION: TEST SECTION: 3.51 MPA PRESSURE 3.51 MPA PRESSURE SAT TEMP 515.78 K SAT TEMP 515.78 K 28.98 KG/SEC-M**2 MASS FLUX 29.20 KG/SEC-M**2 MASS FLUX INLET QUALITY .088 .088 INLET QUALITY 1.205E+06 J/KG INLET ENTHALPY 1.205E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .694 M ELEVATION ELEVATION .625 M VELOCITY .0011 M/SEC .0010 M/SEC VELOCITY .491 QUALITY .481 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) TV ELEVATION TV XE XA ELEVATION. DZQF XE DZQF (K) (M) (M) (M) (M) (K) 1,232 . 538 750.0 .812 .606 1.232 .607 780.0 .837 .607 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS HEAT FLUX ELEVATION TEMP XE W/M##2 W/M##2 W/M##2 (M) (K) W/M##2 (M) (K) .096 1.24E+05 .013 525.3 .096 1.13E+05 .013 525.7 .051 .120 1.24E+05 526.8 .117 1.13E+05 .051 527.4 1.24E+05 .063 525.2 . 125 1.13E+05 .063 525.6 .128 . 143 527.2 1.24E+05 .089 526.7 .139 1.13E+05 .089 .114 525.3 . 159 1.241+05 .114 524.9 . 154 1.13E+05 525.7 .168 1.13E+05 . 140 526.1 .175 1.24E+05 . 140 . 183 . 165 524.5 1,13E+05 524.6 .191 1.24E+05 . 165 .317 528.8 .285 1.24E+05 .317 528.0 .269 1.13E+05 . 394 .332 1.14E+05 531.4 1.24E+05 . 394 530.5 . 313 .470 526.9 . 356 1.14E+05 .470 531.5 .379 1.24E+05 .546 .400 1.14E+05 .427 1.29E+05 535.2 .546 550.8 .480 .622 769.8 1.46E+05 542.9 .445 1.18E+05 .622 1,42E+05 .698 1025.3 .531 1.21E+05 .698 877.5 .494 .775 .545 1017.0 1.23E+05 .775 1.22E+05 1065.0 .577 .851 .592 1.20E+05 1061.2 1.23E+05 .623 .851 1108.6 .927 1102.3 .639 1.22E+05 .927 1152.5 .668 1.19E+05 .713 1.19E+05 1,003 1139.4 .685 1.18E+05 1.003 1191.2 8.03E+02 .758 1.079 1137.6 .730 1.17E+05 11-8.4 1.16E+05 5.54E+03 1.079 .766 1.13E+05 3.68E+03 1.143 1148.3 1.143 1189.4 . 794 1.14E+05 6.66E+03 1120.5 1.05E+05 8.69E+03 .815 1.05E+05 1.51E+04 1.181 . 787 1147.1 1.181 .850 1.245 1180.1 1.17E+05 1.244 720.2 .833 1.80E+05 1.19E+05 1.283 962.1 .886 2.55E+05 1.283 560.1 .861 1.321 576.5 .884 1.15E+05 .923 1.37E+05 1.321 623.2

968.3

1.321

.698

1.188+04

POINT SERIAL NO. 1213.010 (TIME= 155.50 SEC) POINT SERIAL NO. 1213.020 (TIME= 165.50 SEC) LOOP PRESSURE(PE-3) 16.05 MPA LOOP PRESSURE (PE-3) 16.00 MPA 583.7 K FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 584.0 K LHP INLET ENTHALPY 1.397E+06 J/KG LHP INLET ENTHALPY 1.398E+06 J/KG TEST SECTION: TEST SECTION: 6.99 MPA PRESSURE 6.99 MPA PRESSURE SAT TEMP 558.88 K SAT TEMP 558.86 K 18.41 KG/SEC-M**2 18.42 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY .086 INLET QUALITY .087 INLET ENTHALPY 1.398E+06 J/KG INLET ENTHALPY 1.397E+06 J/KG QUENCH FRONT: QUENCH FRONT: .477 M .554 M ELEVATION ELEVATION VELOCITY .0079 M/SEC VELOCITY .0075 M/SEC QUALITY . 309 QUALITY . 333 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF IV XE XA (M) (M) (K) (M) (M) (K) 1.232 943.9 1.232 . 755 977.6 .689 .394 .678 .687 .406 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS TEMP HEAT FLUX ELEVATION XE W/M**2 W/M**2 W/M**2 W/M##2 (M) (K) (M) (K) .013 573.8 .091 3.17E+04 .013 576.8 .090 3.26E+04 .102 .051 577.8 . 102 3.30E+04 3.46E+04 .051 582.2 3.12E+04 .063 .106 3.06E+04 .063 570.6 . 106 568.8 575.5 .113 3.20E+04 .089 573.0 .113 3.13E+04 .089 . 114 .120 3.16E+04 . 114 570.6 .120 3.10E+04 572.8 . 140 . 140 .128 3.01E+04 566.0 . 128 3.04E+04 565.0 3.13E+04 . 165 564.4 . 135 3.06E+04 . 165 566.0 . 135 .317 .317 591.9 . 183 3.76E+04 585.6 . 181 3.50E+04 . 394 645.1 .227 8.77E+04 . 394 625.7 .215 6.20E+04 .470 759.2 .301 1.22E+05 .470 702.1 .265 8.27E+04 .546 9.13E+04 .546 962.9 .384 1.15E+05 781.4 .326 . 394 904.1 .622 1045.8 .454 8.63E+04 .622 1.02E+05 .698 1079.8 .504 5.54E+04 .698 1013.0 .459 8.41E+04 .775 1102.8 .540 4.57E+04 .775 1066.9 .512 6.64E+04 1093.7 5.09E+04 .851 1115.3 .571 4.22E+04 .851 .553 4.01E+04 .927 1114.6 .587 4.58E+04 .927 1131.2 .600 1.003 1132.0 4.33E+04 1.003 1146.2 .627 3.89E+04 .618 1077.7 .652 3.11E+04 1.079 1072.0 .645 3.46E+04 1.079 1071.9 3.51E+04 8.46E+02 3.13E+04 7.97E+02 1.143 .665 1.143 1079.4 .670 1021.3 2.69E+04 3.55E+03 1.181 1014.9 .677 3.01E+04 4.13E+03 .680 1.181 .691 .690 1012.6 1.244 1022.9 1.69E+04 1.244 8.88E+03 1.283 938.6 .694 9.63E+03 1.283 954.5 .696 1.48E+04

1.321

INEL POST-CHE EXPERIMENT NO. 213

.702

2.23E+04

POINT SERIAL NO. 1213.030 (TIME= 175.50 SEC) POINT SERIAL NO. 1213.040 (TIME= 184.50 SEC) LOOP PRESSURE (PE-3) 15.98 MPA LOOP PRESSURE (PE-3) 16.07 MPA FCV TEMPERATURE (TE-FCV-1T) 584.2 K FCV TEMPERATURE (TE-FCV-11) 584.3 K LHP INLET ENTHALPY 1.399E+06 J/KG LHP INLET ENTHALPY 1.400E+06 J/KG TEST SECTION: TEST SECTION: 6.99 MPA PRESSURE 6.99 MPA PRESSURE SAT TEMP 558.87 K SAT TEMP 558.86 K 18.50 KG/SEC-M**2 MASS FLUX 18.44 KG/SEC-M**2 MASS FLUX INLET QUALITY .088 INLET QUALITY .088 1.400E+06 J/KG INLET ENTHALPY 1.399E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .628 M ELEVATION .692 M VELOCITY .0073 M/SEC VELOCITY .0068 M/SEC QUALITY . 348 QUALITY . 363 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XA ELEVATION DZQF TV XA ELEVATION DZQF TV XE (K) (M) (M) (K) (M) (M) 1.232 .604 .667 1.232 .540 861.4 .652 .417 890.8 .415 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP XE XE W/M##2 W/M**2 W/M##2 (M) (K) W/M**2 (M) (K) .013 3.05E+04 571.1 .092 3.09E+04 .013 569.4 .092 3.09E+04 .102 . 103 .051 573.8 3.17E+04 .051 571.4 . 106 .106 3.03E+04 566.1 3.00E+04 .063 567.2 .063 .113 .113 .089 570.7 3.08E+04 .089 569.1 3.04E+04 . 114 .120 .114 3.05 8+04 3.02E+04 568.6 567.3 .120 . 140 .127 . 140 564.0 2.98E+04 563.5 . 127 2.96E+04 2.98E+04 562.9 3.01E+04 . 165 . 134 . 165 562.1 . 134 .177 .317 579.9 .178 3.28E+04 .317 576.5 3.18E+04 . 394 .394 .202 3.64E+04 .200 3.43E+04 607.0 600.3 3.94E+04 .470 622.2 .234 5.52E+04 .470 603.9 .226 .260 .546 712.4 .281 7.84E+04 .546 640.2 5.65E+04 .308 8.25E+04 . 343 9.79E+04 .622 693.5 .622 750.3 8.96E+04 .698 .409 9.17E+04 .698 801.9 . 368 911.7 .470 .775 9.22E+04 .775 1019.0 8.19E+04 933.7 .432 .851 .519 1067.3 5.99E+04 .851 1032.8 .489 7.30E+04 5.68E+04 .927 1095.6 .558 5.04E+04 .927 1073.5 .535 1099.0 5.01E+04 1.003 1116.4 .592 4.66E+04 1.003 .572 .621 3.71E+04 1057.3 .603 3.95E+04 1.079 1065.5 1.079 .643 1.143 1063.6 3.85E+04 3.42E+02 1.143 1053.7 .626 4.05E+04 5.69E+02 1,181 1007.7 .656 3.31E+04 3.76E+03 1.181 999.2 .639 3.44E+04 4.12E+03 2.66E+04 2.25E+04 1033.5 1.244 1030.9 .672 1.244 .657 2.16E+04 1.86E+04 1.283 968.6 .679 1.283 978.0 .665 1.321 984.5 .686 2.42E+04 1.321 989.4 .674 2.55E+04

.851

.927

1.003

1.079

1.143

1,181

1.244

1.283

1,321

800.3

940.4

1029.8

1068.0

1043.1

1037.8

986.1

986.7

994.1

1032.2

. 375

.433

.487

.533

.568

.593

.608

.628

.638

.647

INEL POST-CHE EXPERIMENT NO. 213

POINT SERIAL NO. 1213.050 (TIME= 196.50 SEC) LOOP PRESSURE (PE-3) 15.92 MPA FCV TEMPERATURE (TE-FCV-1T) 584.3 K LHP INLET ENTHALPY 1.400E+06 J/KG TEST SECTION: PRESSURE 6.99 MPA SAT TEMP 558.84 K MASS FLUX 18.40 KG/SEC-M**2 INLET QUALITY .088 INLET ENTHALPY 1.400E+06 J/KG QUENCH FRONT: ELEVATION .770 M VELOCITY .0061 M/SEC QUALITY .372 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .462 814.7 .625 .429 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX XE HEAT LOSS ELEVATION TEMP W/M**2 W/M##2 (M) (K) .013 567.7 3.02E+04 3.05E+04 .051 . 103 569.3 .063 .106 2.99E+04 565.1 .113 .089 567.6 3.01E+04 .114 .120 565.9 3.00E+04 .127 . 140 562.9 2.96E+04 .165 561.3 2.97E+04 . 134 573.2 .177 3.11E+04 .317 593.6 . 199 3.33E+04 .394 .223 3.49E+04 .470 592.6 .249 .546 614.5 3.92E+04 4.97E+04 .280 .622 604.1 704.0 .698 . 321 6.86E+04

8.42E+04

8.16E+04

7.18E+04 5.94E+04

4.22E+04

4.32E+04

4.04E+04

3.00E+04

2.46E+04

2.65E+04

POINT SERIA	L NO. 12	13.060	(TIME= :	211.50 SEC)	
LOOP PRESSU	DE / DE - 23		16	.04 MPA	
FCV TEMPERA		CV-1T)		4.3 K	
LHP INLET E		04-111		+06 J/KG	
TEST SECTIO			1.4000	100 3/10	
PRESSU			6	.99 MPA	
SAT IE				.87 K	
MASS F	222			.37 KG/SEC-	C##M
	QUALITY			088	
	ENTHALPY			+06 J/KG	
QUENCH FROM	2000 1000 1000 1000 1000		1.4000	.00 07110	
ELEVAT				853 M	
VELOCI				050 M/SEC	
QUALIT				385	
NET LHP POW		HD		0.0 W	
VAPOR TEMPE					ION
ELEVATION		IV	XE	XA	
(M)	(M)	(K)			
1.232	.379	785.6	.608 .	438	
WALL TEMPER ELEVATION (M)	TEMP	SUREMENT XE	H	N INFORMATI EAT FLUX W/M**2	ON HEAT LOSS W/M**2
.013	566.3	. 092	2 3	.00E+04	
.051	567.5	, 102	3	.02E+04	
.063	564.1	. 106		.98E+04	
.089	566.2	. 11.		.00E+04	
. 114	564.6	. 120		.99E+04	
. 140	562.4	. 12		.96E+04	
. 165	560.7	. 134		.96E+04	
. 317	570.2	. 170		.07E+04	
. 394	586.8			.25E+04	
.470	584.3			.29E+04	
.546	600.2	. 24		.53E+04	
.622	587.7	.270		.43E+04	
.698	626.0	.29		.34E+04 .33E+04	
.775	685.8	. 38		.63E+04	
.851	763.2 927.8	. 44		.53E+04	
1.003	1011.0	.50		.42E+04	
1.079	1019.3	.540		.80E+04	
1.143	1013.4	.57		.73E+04	
1,181	967.6			.26E+04	
1.244	1025.2	.61		.42E+04	
1.283	993.0	.62		.74E+04	
1.321	1005.2	.63		.27E+04	
	1003.1	.03			

THE POST-CHE EXPEDIMENT NO. 213

	INEL POS	T-CHF EXP	ERIMENT NO	. 213	
POINT SERIA	it. NO. 12	13.070	(TIME= 224	.50 SEC)	
LOOP PRESSU	RECPE-31		16.01	MPA	
FCV TEMPERA	THREFTE-E	CV-1T1			
LHP INLET E		CA-111	1.401E+06		
TEST SECTIO			1.4016.00	3/10	
PRESSU			6.99	MPA	
			558.84		
SAT TE				KG/SEC-	M##2
			.089		Man 5
	QUALITY				
	ENTHALPY		1.401E+06	JING	
QUENCH FROM					
ELEVAI			.922		
VELOCI				M/SEC	
QUALIT			, 404		
NET LHP POW	ER TO FLU	110	0.0	W	
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMAT	ION
ELEVATION	DZQF	TV	XE XA		
(M)	(M)	(K)			
		1000			
1.232	.310	753.9	.587 .444		
WALL TEMPER	RATURE MEA	SUREMENT	LOCATION I	NEORMATI	ON
ELEVATION				FLUX	HEAT LOSS
(M)	(K)		W/M	**2	W/M**2
4.00					
.013	565.4			E+04	
.051	566.4		3.01	E+04	
.063	563.4			E+04	
.089	565.3	. 114	3.00	E+04	
. 114	563.9		2.99	E+04	
. 140	562.0	. 128	2.97	£+04	
. 165	560.4	. 135	2.97	E+04	
.317	568.3	. 177			
. 394	582.2	. 199	3.21	E+04	
470	579.4				
.546	591.9			E+04	
.622	581.3				
.698	609.2				
.775	633.1			E+04	
.851	670.2				
.927	806.5				
1.003	908.5				
1.003	908.5				

.518

.550

.567 ,591 .603

.613

988.5

986.0

948.2

1013.3

994.9 1013.1

1.079

1.143

1.181

1.244 1.283 1.321

5.52E+04 5.18E+04

4.53E+04

3.73E+04 3.00E+04 2.68E+04

	INEL POS	ST-CHE EXP	ERIMENT NO	. 213	
POINT SERIA	AL NO. 12	213.080	(TIME= 236.	.50 SEC)	
LOOP PRESSI	RE(PE-3)		16.00	MPA	
FCV TEMPERA		CV-111			
LHP INLET I			1.402E+06	J/KG	
TEST SECTIO					
PRESSI			6.99	MPA	
SAT TI	MP		558.83	K	
MASS I	FLUX		18.36	KG/SEC-	M##2
INLET	QUALITY		.090		
	ENTHALPY		1.402E+06	J/KG	
QUENCH FROM			The second const		
FLEVA			.984	M	
VELOC				M/SEC	
QUALIT			.426		
NET LHP POV		HD	0.0		
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMAT	ION
ELEVALION	DZQF	TV	XE XA		
(M)	(M)	(K)			
1.232	. 248	711.6	.561 .440		
UNII TEMPE	PATHRE MEA	SHREMENT	LOCATION II	NEORMATI	ON
ELEVATION	TEMP	XE		FLUX	
(M)	(K)	236		##2	W/M##2
(11)	(~)		11/11		
.013	564.7	.093	3.001	E+04	
.051	565.7	. 104	3.011	E+04	
.063	562.9	. 107		E+04	
.089	564.6				
.114	563.3				
. 140	561.8				
. 165	560.1				
.317	567.0				
. 394	578 8	.200			
.470	576.0	,222			
.546	586.0				
.622	577.3				
.00.2	600 0				

.292

.317

. 345

.386

.439

.487

.521

.540

.566

.579

.590

3.55E+04

3.77E+04

4.11E+04 7.37E+04

7.78E+04 5.98E+04 5.67E+04 4.86E+04 3.99E+04 3.21E+04

2.99E+04

598.8

618.3

612.4

693.7

791.4

953.3

955.3

926.5 999.7

993.6

1014.9

.698 .775 .851

1.003

1,079

1.143

1.181

1.244 1.283 1.321

POINT SERIAL NO. 1213.080 (TIME= 236.50 SEC)

16.00 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 584.6 K LHP INLET ENTHALPY 1.402E+06 J/KG TEST SECTION: PRESSURE 6.99 MPA SAT TEMP 558.83 K 18.36 KG/SEC-M**2 MASS FLUX INLET QUALITY .090 INLET ENTHALPY 1.402E+06 J/KG QUENCH FRONT: ELEVATION .984 M VELOCITY .0044 M/SEC . 426 QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE. XA (K) (M) (M) 1.232 .248 711.6 .561 .440 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS TEMP XE ELEVATION W/M**2 W/M##2 (M) (K) 3.00E+04 564.7 .093 .013 . 104 3.01E+04 .051 565.7 . 107 2.99E+04 .063 562.9 .114 .089 564.6 3.00E+04 .114 2.99E+04 563.3 . 121 2.98E+04 .140 561.8 . 129 2.98E+04 .136 . 165 560.1 .178 .317 567.0 3.05E+04 3.17E+04 . 394 578.8 .200 .222 3.16E+04 576.0 .470 .245 3.30E+04 586.0 .546 577.3 .622 .268 3.19E+04 .698 3.55E+04 598.8 .292 .317 3.77E+04 618.3 .775 . 345 .851 612.4 4.11E+04 .927 593.7 .386 7.37E+04 7.78E+04 1.003 791.4 .439 5.98E+04 1.079 953.3 .487 1.143 955.3 .521 5.67E+04 1.181 926.5 .540 4.86E+04 3.99E+04 1.244 999.7 .566 .579 3.21E+04 1.283 993.6 2.99E+04 1.321 1014.9 .590

INEL POST-CHE EXPERIMENT NO. 213

	THE PASS	at said the	entre in		
POINT SERIA	L NO. 12	213.090	(TIME= 263	.50 SEC)	
LOOP PRESSU	RE(PE-3)		16.02	MPA	
FCV TEMPERA		CV-1T1	584.9		
LHP INLET E			1.404E+06		
TEST SECTIO			11.10.10.10.10.10.10.10.10.10.10.10.10.1		
PRESSU			6.99	MPA	
SAT TE	MP		558.85	K	
MASS F	LUX		18.42	KG/SEC-M	4**2
INLET	QUALITY		.091		
INLET	ENTHALPY		1.404E+06	J/KG	
QUENCH FRON	T:				
ELEVAT	ION		1.083	М	
VELOCI	TY		.0030	M/SEC	
QUALIT	Y		. 426		
NET LHP POW	ER TO FLI	110	0.0	W	
VAPOR TEMPE	RATURE MI	ASUREMENT	LOCATION	INFORMAT	ION
ELEVATION		IV	XE XA		
(M)	(M)	(K)	777		
		1000			
1.232	. 149	638.1	.505 .438		
WALL TEMPER	ATURE ME	ASUREMENT	LOCATION II	NEORMATIC	ON
ELEVATION	TEMP	XE	HEAT	FLUX	HEAT LOSS
(M)	(K)		W/M	**2	W/M**2
.013	563.7	.094	3.00	+04	
.051	564.5	. 105			
.063	562.1				
.089	563.5	. 115			
.114	562.5	. 122			
. 140	561.5	. 129	2.98	E+04	
. 165	559.7	, 136		+04	
. 317	565.0	.179		E+04	
. 394	573.2	.200		E+04	
.470	570.9	.222		E+04	
.546	577.3	. 244			
.622	571.7	.266			
.698	584.6	. 289			
.775	598.0				
.851	594.2	. 336			
.927	600.6				
1.003	594.4	. 388			
1.079	800.0				
1.143	855.5	.461			
1.181	862.4	. 482	5.38		
1.244	963.0	.510			
1.283	985.2	.523	3.411	104	

.535

3.39E+04

1.321

	INEL POS	1-CHF EX	PERIME	NI NU.	. 213	
POINT SERIA	L NO. 12	13.100	(TIME	= 281.	.50 SEC)
LOOP PRESSU	RE(PE-3)			15.98	MPA	
FCV TEMPERA	TURE (TE-F	CV-1T)		585.0	K	
LHP INLET E			1.40	5E+06	J/KG	
TEST SECTIO						
PRESSU	RE			6.99	MPA	
SAT TE	MP			58.86		
MASS F	LUX			18.16	KG/SEC	-M**2
	QUALITY :			.091		
The state of the s	ENTHALPY		1.40	5E+06	J/KG	
QUENCH FROM						
ELEVAT				1.141		
VELOCI				P	M/SEC	
QUALIT		A Pro		.442		
NET LHP POW	EK TO FLU	1D		0.0	M	
VAPOR TEMPE	RATURE ME	ASUREMEN	LOCA	TION	NEORMA	TION
ELEVATION	DZQF	TV	XE	XA		
(M)	(M)	(K)				
1.232	.091	609.0	.490	.458		
WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION II	NEORMAT	ION
ELEVATION	TEMP	XE			FLUX	HEAT LOSS
(M)	(K)			W/M	**2	W/M**2
.013	563.2	.09	5	3.001	E+04	
.051	564.0	. 10	5	3.001	E+04	
.063	561.8	. 10		2.991		
.089	562.9	. 11		3.001		
.114	562.1	. 12		2.99		
. 140	561.3	. 13		2.981		
. 165	559.5	, 13		2.98		
.317	564.1			3.011		
. 394	570.6	.20		3.08		
.470	568.7			3.06		
.546	573.8	. 24		3.11		
.622	569.3	.26		3.07		
.698	579.1	.28		3.18		
.775	589.5	. 31	70	3.29		
.851	587.5	. 33	15.			
.927	590.1	. 35		3.34		
1.003	583.0	. 38		4.83		
1.079	699.4	.40		6.91		
1.143	745.5	. 46		5.88		
1.181	805.2 939.0			3.97		
1.244	979.4	.50		3.34		
1.321	1004.8			3.32		
1.361	1004.0			3.36		

		The Contract Contract			
POINT SERIA	L NO. 12	13.110	(TIME= 295	.50 SEC)	
LOOP PRESSU	REIPE-31		15.99	MPA	
FCV TEMPERA	TURE! IF-	CV-III	585.3		
LHP INLET E	NTHALPY	04-111	1.406E+06		
TEST SECTIO			1.4001.00	07 110	
PRESSU			6.99	MPA	
			558.85		
SAT TE				KG/SEC-I	C##N
MASS F					dance.
	QUALITY		.092		
	ENTHALPY		1.406E+06	3/60	
QUENCH FRON			1,175		
ELEVAT				M/SEC	
VELOCI					
QUALIT			.450		
NET LHP POW	ER TO FLU	110	0.0	W	
VAPOR TEMPE	RATURE ME	ASUREMENT	LOCATION	INFORMAT	ION
ELEVATION	DZQF	IV	XE XA		
(M)	(M)	(K)			
		***	620 662		
1.232	.057	581.2	.479 .463		
WALL TEMPER ELEVATION (M)	ATURE MEA TEMP (K)	ASUREMENT	HEAT	NFORMATIO FLUX **2	ON HEAT LOSS W/M**2
.013	562.9	,096	2.99	E+()4	
.051	563.7	. 106			
.063	561.5	, 110			
.089	562.6	. 117			
114	561.8				
. 140	561.2				
. 165	559.4	. 138			
.317	563.5	. 180		E+04	
394	569.1	.202			
.470	567.3				
.546	571.8	.245			
.622	567.9				
.698	575.9	.288	(A) 1. (A) (A)		
.775	584.6	. 310			
.851	583.5	. 333			
.927	584.7	.356			
1,003	578.9				
1.079	668.3				
	645.9	. 432			
1.143		454			
1.181	749.6				
1.244	922.2				
1.283	975.3	.497			
1.321	1001.0	.508	3.28	L+04	

POINT SERIAL NO. 1219.011 (TIME= 128.50 SEC) POINT SERIAL NO. 1219.021 (TIME: 163.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 16.01 MPA 100P PRESSURE (PE-3) 16.02 MPA FCV 1EMPLRATURE (TE-FCV-11) 574.2 K FCV TEMPERATURE (TE-FCV-1T) 574.5 K LHP INLET ENTHALPY LHP INLET ENTHALPY 1.345E+06 J/KG 1.343E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 7.00 MPA PRESSURE 6.99 MPA SAT TEMP 558.89 K 558.95 K SAT TEMP 46.18 KG/SEC-M**2 MASS FLUX 46.31 KG/SEC-M**2 MASS FLUX INLET QUALITY .050 INLET QUALITY .052 1.345E+06 J/KG INLET ENTHALPY 1.343E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .619 M ELEVATION .699 M .0021 M/SEC VELOCITY .0025 M/SEC VELOCITY .535 QUALITY . 484 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF IV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.232 .613 765.0 .898 .638 1.232 .533 745.0 .899 .654 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (M) (K) W/M##2 W/M##2 (K) W/M##2 W/M**2 .013 568.3 .059 1.86E+05 .013 566.6 .060 1.85E+05 .085 1.85E+05 .051 570.8 1.86E+05 .051 568.7 .086 .063 567.7 .093 1.85E+05 .063 .095 1.85E+05 566.2 . 111 1.85E+05 .089 570.1 1.86E+05 .089 568.1 . 112 .129 .114 . 128 . 114 1.85E+05 568.2 1.86E+05 566.5 .140 . 145 .140 . 146 566.9 1.85E+05 566.1 1.85E+05 .163 . 165 564.3 . 162 1.85E+05 . 165 563.6 1.85E+05 .317 572.0 .266 1.86E+05 .317 569.4 .267 1.86E+05 1.87E+05 . 394 586.6 .318 1.88E+05 . 394 578.4 . 319 .470 584.1 .370 1.89E+05 . 470 574.8 .371 1.87E+05 .425 .546 611.7 2.04E+05 .546 585.3 .423 1.88E+05 .622 815.9 .487 2.44E+05 .622 587.3 .476 1.93E+05 .698 969.4 .548 1.93E+05 .698 820.8 .535 2.27E+05 .775 1001.0 .601 1.87E+05 .775 1006.1 .594 1.96E+05 1037. .647 .851 .653 1.86E+05 .851 1042.8 1.88E+05 .705 .927 1075.9 1.86E+05 .927 1080.2 .700 1.88E+05 1.003 1112.5 .756 1.85E+05 1.003 1116.9 .752 1.87E+05 1.079 1079.3 .807 1.79E+05 3.37E+03 1.079 1090.0 .804 1.85E+05 5.10E+02 1.181 1088.0 .872 1.71E+05 1.19E+04 1.181 1092.0 .871 1.76E+05 9.10E+03 1.74E+05 1.245 1128.3 .912 1.245 1100.6 .917 2.16E+05 1.283 .944 .947 1006.1 2.82E+05 1.283 696.3 2.15E+05 1.321 578.4 .977 1.98E+05 1.321 547.0 .975 1.88E+05

POINT SERIAL NO. 1219.041 (TIME= 202.50 SEC) POINT SERIAL NO. 1219.031 (TIME= 184.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 15.98 MPA 15.96 MPA LOOP PRESSURE(PE-3) 574.7 K FCV [EMPERATURE(TE-FCV-1T) 574.6 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.346E+06 J/KG LHP INLET ENTHALPY 1.346E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 6.99 MPA 6.99 MPA PRESSURE SAT TEMP 558.85 K 558.87 K SAT TEMP 46.32 KG/SEC-M**2 MASS FLUX 46.21 KG/SEC-M##2 MASS FLUX INLET QUALITY .052 INLET QUALITY .053 INLET ENTHALPY 1.346E+06 J/KG INLET ENTHALPY 1.346E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .781 M ELEVATION .743 M .0021 M/SEC VELOCITY .0021 M/SEC VELOCITY .563 QUALITY .539 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) DZQF IV ELEVATION ELEVATION DZQF (M) (K) (M) (M) (K) (M) .451 700.0 .849 .652 1.232 .489 715.0 .902 .680 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M**2 W/M##2 (M) W/M##2 (K) (K) W/M##2 (M) .061 .013 565.4 .060 1.66E+05 .013 566.2 1.85E+05 567.2 .083 1.67E+05 .087 .051 .051 568.2 1.85E+05 .063 564.6 .091 1.66E+05 .063 565.6 .095 1.84E+05 . 106 566.4 1.66E+05 .089 .089 567.4 .112 1.85E+05 1.66E+05 1.85E+05 . 114 564.5 . 122 . 114 565.8 . 130 1.66E+05 . 147 564.5 .137 1.85E+05 . 140 .140 565.7 . 153 562.2 1.66E+05 . 165 . 164 . 165 563.4 1.84E+05 .317 1.85E+05 .245 1.66E+05 566.8 .317 568.5 .267 . 394 1.66E+05 1.85E+05 572.5 . 292 575.1 .318 . 394 .370 1.66E+05 , 470 570.1 . 338 572.0 1.85E+05 .470 . 384 .546 575.3 1.66E+05 .421 .546 578.7 1.86E+05 .622 573.9 .431 1.67E+05 .622 578.2 .473 1.86E+05 1.72E+05 .698 600.1 .478 .527 2.02E+05 619.9 .698 2.28E+05 .589 749.1 .534 988.9 2.43 €+05 .775 .775 1.98E+05 .851 1028.7 .594 1041.3 .648 1.83E+05 .851 1.94E+05 .927 .927 1070.4 .648 1078.4 .699 1.85E+05 1.003 1107.6 .702 1.94E+05 .751 1.84E+05 1,003 1116.8 1.80E+05 1090.6 . 755 1094.3 .802 1.84E+05 1.079 1.079 1.181 1090.4 .821 1.75E+05 3.48E+03 .869 1.79E+05 4.54E+03 1093.7 1.181 1.245 698.2 .867 2.27E+05 3.46E+05 1.245 939.6 .930 1.82E+05 1.283 644.0 .897 1.95E+05 1.283 664.9 .967 1.321 557.9 .921 1.52E+05 548.9 .992 1.87E+05 1.321

8.55E+04

9.94E+04

1.10E+05

1.10E+05

1088.7

1043.0

1019.4

1066.7

1.181

1.245

1.283

1.321

.426

.436

.443

.450

1.46E+04

POINT SERIAL NO. 1222.010 (TIME= 75.50 SEC) POINT SERIAL NO. 1222.020 (TIME= 94.50 SEC) 16.09 MPA LOOP PRESSURE(PE-3) 16.10 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-1T) 525.6 K 525.5 K 1.098F+06 J/KG LHP INLET ENTHALPY 1.098E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: PRESSURE .70 MPA PRESSURE .70 MPA SAT TEMP 438.31 K SAT TEMP 438.32 K 71.09 KG/SEC-M**2 71.49 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY . 194 . 194 1.098E+06 J/KG INLET ENTHALPY INLET ENTHALPY 1.098E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .320 M ELEVATION .246 M .0039 M/SEC VELOCITY .0039 M/SEC VELOCITY .245 .256 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (14) (K) 1.232 .912 786.7 .433 .318 1.232 . 986 825.2 .432 .308 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION TEMP HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION XE W/M##2 W/M##2 W/M**2 (M) (K) W/M##2 (M) (K) . 196 .013 462.5 . 196 1.06E+05 .013 458.2 9.93E+04 .203 .051 469.8 1.07E+05 .051 462.7 .203 1.00E+05 .205 1.05E+05 .063 458.0 .205 9.90E+04 .063 461.1 .089 .209 463.0 9.95E+04 .089 468.5 .210 1.07E+05 .214 9.94E+04 467.8 .215 1.07E+05 . 114 462.7 .114 . 140 . 140 463.5 .219 1.08E+05 458.7 .218 9.89E+04 .225 . 165 478.2 1.40E+05 . 165 462.1 .222 1.01E+05 .256 1.51E+05 .317 965.1 .263 1.47E+05 .317 730.6 .394 971.8 .276 1.53E+05 . 394 1034.7 .280 1.20E+05 1043.5 .294 1.21E+05 1075.6 .296 1.17E+05 .470 .470 1.13E+05 .546 1075.9 .310 1.15E+05 .546 1099.3 .311 . 325 .622 .326 1108.6 1.14E+05 1129.9 1.13E+05 .622 . 340 .698 1125.0 1.11E+05 .698 1141.0 . 340 1.10E+05 . 354 .775 1141.4 1.10E+05 .355 1.08E+05 .775 1155.0 .851 .368 .369 1.06E+05 1153.4 1.07E+05 .851 1162.8 .383 1.06E+05 .927 1172.9 . 383 1.07E+05 .927 1182.5 1187.4 .397 1.06E+05 1,003 1.003 1195.4 .397 1.05E+05 4.15E+03 2.70E+03 1.079 1122.6 .410 9.64E+04 9.32E+04 1.079 1116.5 .410 8.08E+03 8.47E+03 1140.7 ,421 9.62E+04 .420 9.49E+04 1,143 1.143 1148.3

1.181

1.244

1.283

1.321

1086.1

1036.3

1007.2

1054.6

.427

.437

444

.451

8.72E+04

9.89E+04

1.08E+05

1.07E+05

INEL POST-CHE EXPERIMENT NO. 222

1.36E+04

1043.4

. 464

1.10E+05

INEL POST-CHE EXPERIMENT NO. 222

POINT SERIAL NO. 1222,040 (TIME= 131.50 SEC) POINT SERIAL NO. 1222.030 (TIME= 113.50 SEC) LOOP PRESSURE (PE-3) 15.98 MPA 16.01 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-11) 525.6 K FCV TEMPERATURE (TE-FCV-11) 525.7 K LHP INLET ENTHALPY 1.098E+06 J/KG LHP INLET ENTHALPY 1.098E+06 J/KG TEST SECTION: TEST SECTION: . 70 MPA PRESSURE PRESSURE .70 MPA SAT TEMP SAT TEMP 438.11 K 438.29 K 70.16 KG/SEC-M**2 MASS FLUX 70.52 KG/SEC-M**2 MASS FLUX .194 . 194 INLET QUALITY INLET QUALITY INLET ENTHALPY 1.098E+06 J/KG INLET ENTHALPY 1.098E+06 J/KG QUENCH FRON : QUENCH FRONT: .397 M ELEVATION .472 M ELEVATION .0041 M/SEC VELOCITY .0042 M/SEC VELOCITY .291 QUALITY .276 QUILLITY 0.0 W NET LHP POWER TO FLUID 0.0 W NET LHE POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION XE XA ELEVATION DZQF TV XE XA ELIVATION DZQF TV (M) (M) (K) (M) (M) (K) .760 719.0 .449 .347 1.232 .835 755.3 .445 .335 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS XE ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP W/M##2 W/M**2 (K) W/M##2 W/M##2 (M) (K) (M) .013 . 196 1.05E+05 .013 456.0 . 196 1.05E+05 455.2 458.4 .203 1.05E+05 459.7 .203 1.05E+05 .051 .051 1.05E+05 .206 457.2 .206 1.05E+05 .063 456.5 .063 .211 1.05E+05 460.1 .089 461.1 .210 1.05E+05 .089 1.05E+05 . 114 .114 459.5 .215 460.8 .215 1.05E+05 .220 1.05E+05 . 140 457.4 . 140 458.0 .220 1.05E+05 . 165 1.05E+05 1.06E+05 457.5 .225 458.9 .224 . 165 .253 1.101+05 .317 516.3 .255 1.27E+05 .317 480.9 1.42E+05 555.1 .270 . 394 .275 733.1 1.69E+05 . 394 .290 772.8 1.59E+05 .470 .470 973.2 .296 1.49E+05 971.1 .311 1.52E+05 1.25E+05 .546 .546 1042.9 . 314 .330 1.28E+05 .622 1081.6 .331 1.20E+05 1050.2 .622 . 347 1.21E+05 1082.7 1.16E+05 .698 .698 1104.1 . 347 . 363 1.18E+05 .362 .775 1107.4 .775 1123.7 1.14E+05 .851 .378 1126.7 1.15E+05 .851 1139.7 .377 1.12E+05 1.15E+05 1147.8 . 394 .392 1.11E+05 .927 .927 1159.5 1.14E+05 .407 1.003 1165.5 .409 1.10E+05 1.003 1175.8 .424 2.33E+03 1.06E+05 1.079 .421 1119.7 1.02E+05 3.51E+03 1.079 1121.5 .435 1123.0 1.04E+05 6.77E+03 1.143 1130.1 1.00E+05 7.61E+03 1.143 .432 1075.8 .442 9.46E+04 1.26E+04 1.181 9.14E+04 1.39E+04 1.181 1079.5 .438 1.04E+05 1.244 1022.0 .453 1,03E+05 1.244 1027.3 .449 1.12E+05 1.283 989.5 .460 .456 1.10E+05 1.283 996.0

INEL POST-CHF EXPERIMENT NO. 222

1036.6

1.321

.468

1.11E+05

POINT SERIAL NO. 1222,050	(TIME= 148.50 SEC)	POINT SERIAL NO. 1222.060	(TIME= 165.50 SEC)
LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-1T) LHP INLET ENTHALPY	16.04 MPA	LOOP PRESSURE(PE-3) FCV TEMPERATURE(TE-FCV-1T) LHP INLET ENTHALPY	16.06 MPA
FCV TEMPERATURE (TE-FCV-1T)	525 7 K	FCV TEMPERATURE (TE-FCV-1T)	525.8 K
LUP INLET ENTHALPY	1 098F+06 1/KG	THE INLET ENTHALPY	1 099F+06 J/KG
TEST SECTION:	1.0902.00 0710	TEST SECTION:	
PRESCURE	70 MPA	PRESCURE	70 MPA
SAT TEMP	h38 23 V	SAT TEMP	h38 17 K
MASS FLUX	.70 MPA 438.23 K 69.82 KG/SEC-M**2 .194 1.098E+06 J/KG	PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY	69 60 KG/SEC-M##2
INI ET OHALITY	101	INITIONALITY	104
INLET CHTUAL CV	1 0085406 1780	INI ET ENTUAL PV	1 000F+06 1/KG
QUENCH FRONT:	1.098E+06 J/KG .546 M .0045 M/SEC	QUENCH FRONT:	
ELEVATION			623 M
VELOCITY	.546 M .0045 M/SEC	VELOCITY	.623 M .0046 M/SEC
VELOCITY QUALITY	305	QUALITY	323
NET LHP POWER TO FLUID	.305 0.0 W	VELOCITY QUALITY NET LIP POWER TO FLUID	.323 0.0 W
HET LIF FONER TO FLOTD			
VAPOR TEMPERATURE MEASUREMEN	IT LOCATION INFORMATION	VAPOR TEMPERATURE MEASUREMEN	
ELEVATION DZQF TV	XE XA	ELEVATION DZQF IV	XE XA
(M) (M) (K)		(M) (M) (K)	
1.232 .686 678.9	.452 .361	1.232 .609 645.6	.454 .373
		rougherous arrangement	. COLTION INCODUSTION
WALL TEMPERATURE MEASUREMEN	LOCATION INFORMATION	WALL TEMPERATURE MEASUREMENT ELEVATION TEMP XE	HEAT FLUX HEAT LOSS
ELEVATION TEMP X	W/M**2 W/M**2	(M) (K)	W/M**2 W/M**2
(M) (K)	M/M==2 M/M==2	(M) (K)	M/H2 M/H2
.013 454.7 .19	7 1.05E+05	.013 454.2 .19	
.051 457.6 .20	1,05E+05	.013 454.2 .19 .051 457.1 .20 .063 455.8 .20	
.063 456.0 .20	06 1.05E+05	.063 455.8 .20	
.089 459.1 .2	11 1.05E+05	.089 458.6 .21	
.114 458.6 .2	15 1.05E+05	.114 458.0 .21	
.140 457.0 .27	20 1.05E+05	.140 456.8 .22	0 1.05E+05
.165 456.7 .23	25 1.05E+05	.165 456.4 .22	5 1.05E+05
.317 473.1 .29	3 1.07E+05	.317 469.1 .25	4 1.06E+05
.394 516.8 .20		.394 506.4 .26	8 1.10E+05
.470 572.2 .28	35 1.41E+05	.470 508.5 .28	3 1.16E+05
.546 782.1 .30		.546 602.0 .30	1 1.47E+05
.622 971.1 .37	1.56E+05	.622 759.9 .32	
.698 1051.4 .31	16 1.29E+05	.698 1012.8 .34	
.775 1084.3 .30	1.22E+05	.775 1058.2 .36	
.851 1108.6 .3	79 1,19E+05	.851 1089.0 .38	
.927 1131.2 .39	05 1.17E+05	.927 1113.9 .39	
1.003 1150.7 .4	11 1.16E+05	1,003 1135.4 .41	
1.079 1113.2 .4	26 1.11E+05 7.95E+02	1.079 1104.9 .42	
1.143 1112.1 .4		1.143 1100.7 .44	
1.181 1068.8 .44		1.181 1060.7 .44	
1.244 1014.4 .4		1.244 1006.7 .45	
1.283 980.8 .40	54 1.13E+05	1.283 972.3 .46	6 1.13E+05
		1.321 1019.6 .47	
1.321 1028.0 .4	1.126,03	1.321 1019.0 .47	

1,244

1,283

1.321

INEL POST-CHE EXPERIMENT NO. 222

1.06E+05

1.13E+05

1.13E+05

.461

.468

.476

1003.5

1016.2

968.7

POINT SERIAL NO. 1231,020 (TIME= 136.50 SEC) POINT SERIAL NO. 1222.070 (TIME= 176.50 SEC) LOOP PRESSURE (PE-3) 15.88 MPA 16.08 MPA LOOP PRESSURE (PE-3) 525.8 K FCV TEMPERATURE (TE-FCV-IT) 440.8 K FCV TEMPERATURE (TE-FCV-11) 7.174E+05 J/KG LHP INLET ENTHALPY 1.099E+06 J/KG LHP INLET ENTHALPY TEST SECTION: TEST SECTION: .70 MPA .70 MPA PRESSURE PRESSURE 438,22 K SAT TEMP 438.31 K SAT TEMP 22.15 KG/SEC-M**2 MASS FLUX 69.39 KG/SEC-M**2 .195 MASS FLUX INLET QUALITY .009 INLET QUALITY INLET ENTHALPY 7.174E+05 J/KG 1.099E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .319 M ELEVATION .674 M VELOCITY .0027 M/SEC VELOCITY .0048 M/SEC .335 QUALITY . 127 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (K) (M) 1.232 .913 945.9 .486 .316 1.232 . 558 622.3 .457 .383 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION XE HEAT FLUX TEMP W/M##2 W/M##2 (M) (K) W/M**2 W/M##2 (M) (K) .013 .013 454.1 . 197 1.05E+05 .013 459.2 5.70E+04 5.74E+04 .204 1.05E+05 .051 460.9 .026 456.9 .051 1.05E+05 .063 454.7 .030 5.67E+04 .063 455.6 .206 .211 1.05E+05 .089 459.3 .038 5.71E+04 458.4 .089 456.0 .046 5.698+04 .114 457.8 .216 1.05E+05 .114 452.4 .054 5.65E+04 . 140 .221 1.05E+05 . 140 456.7 .165 454.4 .062 5.73E+04 . 165 1.05E+05 456.3 .225 .317 9.41E+04 467.9 .254 1.06E+05 703.0 . 126 .317 8.17E+04 918.8 . 163 502.6 .268 1.10E+05 . 394 . 394 965.2 . 197 7.68E+04 500.2 .283 1.12E+05 .470 .470 .229 7.41E+04 .546 1004.8 549.0 .300 1.28E+05 .546 1.81E+05 .622 1047.1 .261 7.56E+04 .622 710.3 .320 7.35E+04 .293 . 343 1.59E+05 .698 1081.7 995.5 .698 .323 .775 7.12E+04 1118.7 .775 1045.9 .363 1.31E+05 .353 .851 1149.0 7.08E+04 .851 1080.6 . 380 1.24E+05 1181.9 6.90E+04 .927 . 383 .397 1.22E+05 .927 1106.6 6.83E+04 1209.3 .412 .413 1.003 1.20E+05 1.003 1128.9 6.04E+04 1159.3 .440 1.079 1.14E+05 1.079 1101.3 .429 4.70E+03 1.143 1145.3 .461 5.96E+04 1096.0 .442 1.11E+05 4.36E+03 1.143 1105.2 .473 5.48E+04 6.55E+03 9.42E+03 1,181 1.181 1.02E+05 1057.3 .449

1.245

1.283

1.321

INEL POST-CHE EXPERIMENT NO. 231

6.06E+04

1.94E+05

8.98E+04

.493

.520

.550

1135.2

1045.6

1.283

1.321

1075.5

553.4

502.1

.436

.461

.478

1.20E+05

1.15E+05

4.88E+04

INEL POST-CHE EXPERIMENT NO. 231 INEL POST-CHE EXPERIMENT NO. 231 POINT SERIAL NO. 1231.030 (TIME= 160.50 SEC) POINT SERIAL NO. 1231.040 (TIME= 176.50 SEC) LOOP PRESSURE(PE-3) 15.89 MPA LOOP PRESSURE(PE-3) 15.87 MPA FCV TEMPERATURE (TE-FCV-1T) 440.7 K FCV TEMPERATURE (TE-FCV-1T) 440.5 K LHP INLET ENTHALPY 7.171E+05 J/KG LHP INLET ENTHALPY 7.163E+05 J/KG TEST SECTION: TEST SECTION: PRESSURE .70 MPA PRESSURE .70 MPA SAT TEMP 438.31 K SAT TEMP 438.35 K MASS FLUX 21.97 KG/SEC-M##2 MASS FLUX 21.98 KG/SEC-M**2 INLET QUALITY .009 INLET QUALITY .009 INLET ENTHALPY 7.171E+05 J/KG INLET ENTHALPY 7.163E+05 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .385 M ELEVATION .429 M VELOCITY .0028 M/SEC VELOCITY .0028 M/SEC QUALITY . 120 .132 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.232 .847 918.5 .421 .279 1.232 .803 848.1 .411 .287 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 (M) (K) W/M##2 M/M##2 454.8 .013 4.29E+04 .012 .013 453.4 .012 4.25E+04 455.9 .051 .022 4.29E+04 454.4 .051 .021 4.25E+04 .063 451.7 .025 4.23E+04 .063 451.0 .024 4.22E+04 .089 455.3 .031 4.26E+04 .089 454.3 .030 4.24E+04 .114 452.8 4.24E+04 .037 . 114 452.0 .036 4.23E+04 .043 .140 450.0 4.21E+04 . 140 449.8 .042 4.20E+04 .165 450.8 .049 4.23E+04 . 165 450.2 .048 4.22E+04 .317 481.6 .090 5.33E+04 .086 .317 471.3 4.61E+04 . 124 .115 . 394 832.5 1.05E+05 . 394 574.8 8.91E+04 .470 904.9 6.67E+04 . 160 . 150 .470 872.7 7.71E+04 .188 .546 950.2 6.46E+04 .546 922.4 .181 6.39E+04 .209 .622 990.4 .216 6.55E+04 .622 960.9 6.64E+04 .698 1026.8 .244 6.60E+04 .698 1000.0 .236 6.29E+04 .775 1070.6 .272 6.40E+04 .775 1045.3 .263 6.12E+04 .851 1102.2 .299 6.21E+04 .851 1079.6 .288 5.89E+04 .927 1140.0 . 326 6.10E+04 .927 1117.8 .314 5.98E+04 1,003 1169.9 .352 6.03E+04 1.003 .339 1148.8 5.88E+04 1.079 1136.8 .376 5.36E+04 1.079 1123.5 . 363 5.25E+04 1.143 1111.7 . 395 5.24E+04 4.14E+03 1.143 1093.9 . 381 5.07E+04 4.03E+03 1.181 1078.9 .406 4.85E+04 4.70E+03 .392 1.181 1065.2 4.70E+04 4.66E+03

1.245

1.283

1.321

.435

.463

.474

1.98E+05

5.82E+04

4.60E+04

853.6

484.4

POINT SERIAL NO. 1236.021 (TIME= 77.50 SEC) POINT SERIAL NO. 1236.011 (TIME= 72.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) 15.97 MPA LOOP PRESSURE (PE-3) 15.97 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 527.8 K FCV TEMPERATURE (TE-FCV-11) 527.8 K 1.108E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY 1.108E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.50 MPA 3.50 MPA PRESSURE SAT TEMP 515.66 K SAT TEMP 515.65 K MASS FLUX 22.07 KG/SEC-M**2 MASS FLUX 22.12 KG/SEC-M**2 INLET QUALITY .033 INLET QUALITY .034 INLET ENTHALPY 1.108E+06 J/KG INLET ENTHALPY 1.108E+06 J/KG QUENCH FRONT: QUENCH FRONT: .220 M ELEVATION ELEVATION .168 M VELOCITY .0105 M/SEC VELOCITY .0105 M/SEC QUALITY . 150 QUALITY . 139 NET LHP POWER TO FLUID 0.0 W NET LIIP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF IV TV ELEVATION DZQF XA (M) (M) (K) (M) (K) (M) .735 .470 1.012 920.0 950.0 1.232 1.232 1.064 .722 .450 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M##2 W/M**2 (M) (K) W/M##2 W/M##2 (M) (K) 570.2 .037 4.55E+04 .013 584.7 .038 5.62E+04 .013 5.17E+04 .051 589.7 .050 609.7 .054 7.15E+04 .051 4.12E+04 .053 564.9 .060 6.17E+04 .063 551.3 .063 .062 5.66E+04 571.4 .089 612.8 .074 1.08E+05 .089 . 114 7.43E+04 565.1 .073 . 114 639.3 .093 1.19E+05 9.83E+04 . 140 587.0 .087 . 140 584.3 . 114 1.34E+05 9.98E+04 .137 621.9 . 104 . 165 . 165 682.8 1.32E+05 823.3 1.56E+05 .317 .232 .281 918.9 1.55E+05 . 317 .307 1.44E+05 . 394 917.1 .394 975.4 .353 1.29E+05 .376 .470 959.7 1.31E+05 1.17E+05 .470 1012.3 .414 .546 1.16E+05 992.6 . 38 9.94E+04 .546 1035.6 .469 . 494 1.06E+05 1020.9 .622 1058.2 .516 8.90E+04 .622 .543 1043.0 8.60E+04 .698 .698 1069.9 .557 7.18E+04 .583 .775 7.31E+04 .775 1062.1 6.28E+04 1083.0 .590 5.24E+04 6.10E+04 .851 1072.6 .616 .619 .851 1087.7 .647 5.99E+04 5.22E+04 .927 1090.4 .927 1105.1 . 645 .676 5.69E+04 5.05E+04 1.003 1097.0 1,003 1110.6 .671 .700 4.02E+04 1030.6 .692 1.079 1035.5 3.37E+04 1.079 .717 1.143 1031.3 3.91E+04 1.143 1035.8 .706 3.29E+04 .726 .714 987.3 3.51E+04 1.95E+03 2.98E+04 1.64E+03 1,181 990.9 1.181 .739 2.64E+04 977.3 1.244 976.3 .725 2.15E+04 1.244 .746 2.66E+04 .730 925.5 1.283 2.34E+04 1,283 923.7 .752 2.24E+04 1.321 960.6 1.98E+04 1.321 956.8 .736

.546

.622

.698

.775

.851

.927

1.003

1.079

1.143

1.181

1.244

1.283

1.321

887.5

935.4

968.7

1003.6

1030.7

1049.3

1068.9

1079.2

1021.7

1022.9

979.9

975.3

9.15.3

963.2

.314

.379

. 435

.486

.530

.568

.601

.632

.658

. 176

: 687

.702

.710

.717

INEL POST-CHE EXPERIMENT NO. 236 POINT SERIAL NO. 1236.031 (TIME= 83.50 SEC) POINT SERIAL NO. 1236.041 (TIME= 88.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 15.95 MPA LOOP PRESSURE(PE-3) FCV TEMPERATURE (TE-FCV-1T) 527.8 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.109E+06 J/KG LHP INLET ENTHALPY TEST SECTION: PRESSURE 3.50 MPA SAT TEMP 515.64 K MASS FLUX 21.85 KG/SEC-M**2 INLET QUALITY .034 INLET ENTHALPY 1.109E+06 J/KG QUENCH FRONT: ELEVATION .311 M VELOCITY .0175 M/SEC QUALITY . 169 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV (M) (M) (K) (M) 1.232 .921 892.0 .697 .457 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) W/M##2 W/M##2 (K) (M) .013 559.0 .037 3.92E+04 .013 .051 574.4 .048 4.42E+04 .051 .063 .051 543.5 3.50E+04 .063 .089 556.7 .057 4.05E+04 .089 .114 547.5 .064 3.90E+04 . 114 . 140 537.9 .071 4.25E+04 . 140 .165 549.1 .079 6.13E+04 . 165 .317 712.1 .173 1.24E+05 .317 .241 . 394 842.8 1.44E+05

1.44E+05

1.14E+05

1.09E+05

9.18E+04

8.01E+04

6.84E+04

6.47E+04

5.79E+04

4.35E+04

4.36E+04

3.79E+04

3.20E+04

3.15E+04

2.70E+04

1.53E+02

3.57E+03

1.109E+06 J/KG TEST SECTION: PRESSURE 3.50 MPA SAT TEMP 515.63 K MASS FLUX 21.72 KG/SEC-M**2 INLET QUALITY .034 INLET ENTHALPY 1.109E+06 J/KG QUENCH FRONT: ELEVATION .396 M VELOCITY .0166 M/SEC QUALITY .203 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION IV DZQF XA (M) (K) .835 .653 .436 870.0 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP HEAT FLUX XE HEAT LOSS (K) W/M##2 W/M**2 552.4 .037 3.61E+04 .047 564.9 4.05E+04 539.4 .050 3.26E+04 549.9 .056 3.59E+04 541.8 .062 3.41E+04 531.9 .067 3.33E+04 .073 538.4 3.99E+04 . 144 640.4 9.90E+04 . 394 .200 708.8 1.22E+05 .470 840.8 .268 1.42E+05 .546 885.9 . 334 1.19E+05 .391 .622 925.1 1.07E+05 .698 970.4 .441 8.96E+04 .775 1003.8 . 484 7.82E+04 .851 1028.2 .522 6.90E+04 .927 1050.0 .556 6.45E+04 1.003 1063.8 .587 5.77E+04 1.079 1013.2 .613 4.43E+04 1.143 1013.9 .632 4.50E+04 5.70E+02 1.181 971.4 .643 3.91E+04 4.55E+03 1.244 971.3 .658 3.46E+04 1.283 922.8 .667 3.40E+04 1.321 962.9 .675 2.99E+04

INEL POST-CHE EXPERIMENT NO. 236

15.95 MPA

527.9 K

LINEERRED V	AL NO. 1236	.051 (11)	ME= 92.50	SEC) G SEC-M**2 G SEC	POINT SERIA	APOR TEMP	36.061	(TIME	= 98.50 \$	SEC)
LOOP PRESSI	IRF(PE-3)		15.95 MPA		LOOP PRESSU	RE(PE-3)			15.95 MPA	
FCV TEMPER	TURFITE-FCV	-1T)	528.0 K		FCV TEMPERA	TURE (TE-F	CV-1T)		528.1 K	
LHP INLET I	ENTHAL PY	1.1	109E+06 J/K	G	TEST SECTION	NTHALPY		1.11	0E+06 J/K	G
DEE SEL	ID C		3 50 MPA		PRESSU	RE			3.50 MPA	
EAT II	CMP		515 62 K		SAT TE	MP		5	15.64 K	
MACCI	ELDV		21 67 KG/	SEC-M**2	MASS F	LUX			21.72 KG/S	SEC-M##2
INIEL	ODALITY		034		INLET	QUALITY			.034	
INLET	ENTHALPY	1.1	109F+06 1/K	G .	INLET	ENTHALPY		1.11	0E+06 J/K	3
OHENCH EDON	UT.		Oyr.ou ayr		QUENCH FROM	II:			Service and and	
ELEVA!	TION		1163 M		FLEVAT	ION			.550 M	
FEEAN	TV		0165 M/S	SEC.	VELOCI	TY			.0130 M/SI	EC
OHALL	IV.		224		QUALIT	Y			.238	
NET LHP POL	HER TO FLUID		0.0 W		NET LHP POW	ER TO FLU	10		0.0 W	
VAPOR TEMPI	ERATURE MEAS	SUREMENT LOC	CATION INFO	ORMATION	VAPOR TEMPE	RATURE ME	ASUREMENT	LOCA	TION INFO	RMATION
ELEVATION	DZOF	TV VE	XA		ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
1.232	.769 8	60.0 .62	1 .418		1.232	.682	835.0	.594	.409	
MALL TEMPE	DATURE MEASU	REMENT LOCA	ATION INFOR	MATION	WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION INFORM	MATION
ELEVATION	TEMP	XE EVO	HEAT FLU	IX HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	K HEAT LOS
(M)	(K)		M/W**2	M/M**2	(M)	(K)			M/W##5	W/M**2
(M)	(K) 548.3	.037	W/M**2 3.45E+04	MATION IX HEAT LOSS W/M**2	(M) .013	(K) 543.5	.037		W/M**2 3.29E+04	W/M**2
(M) .013 .051	(K) 548.3 558.7	.037	W/M**2 3.45E+04 3.82E+04	W/M**2	(M) .013 .051	543.5 551.4	.037		W/M**2 3.29E+04 3.57E+04	W/M**2
(M) .013 .051	(K) 548.3 558.7 537.0	.037	W/M**2 3.45E+04 3.82E+04 3.15E+04	W/M**2	(M) .013 .051 .063	543.5 551.4 534.2	.037 .046 .049		W/M**2 3.29E+04 3.57E+04 3.05E+04	W/M**2
(M) .013 .051 .063 .089	548.3 558.7 537.0 546.0	.037 .046 .049	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04	W/M**2	(M) .013 .051 .063 .089	543.5 551.4 534.2 541.8	.037 .046 .049		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04	W/M**2
(M) .013 .051 .063 .089	(K) 548.3 558.7 537.0 546.0 538.8	.037 .046 .049 .055	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.23E+04	W/M**2	(M) .013 .051 .063 .089 .114	543.5 551.4 534.2 541.8 535.6	.037 .046 .049 .054		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04	W/M**2
(M) .013 .051 .063 .089 .114	548.3 558.7 537.0 546.0 538.8 529.5	.037 .046 .049 .055 .061	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.23E+04 3.11E+04	W/M**2	(M) .013 .051 .063 .089 .114	543.5 551.4 534.2 541.8 535.6 527.3	.037 .046 .049 .054 .060		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04	W/M**2
(M) .013 .051 .063 .089 .114 .140	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5	.037 .046 .049 .055 .061 .066	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.34E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140	543.5 551.4 534.8 535.6 527.3 530.8	.037 .046 .049 .054 .060		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1	.037 .046 .049 .055 .061 .066	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.34E+04 7.31E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165	543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5	. 037 . 046 . 049 . 054 . 060 . 065 . 070		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165 .317	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1	.037 .046 .049 .055 .061 .066 .071	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.23E+04 3.11E+04 3.34E+04 1.02E+05	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317	543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9	. 037 . 046 . 049 . 054 . 060 . 065 . 070 . 106		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+04	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6	.037 .046 .049 .055 .061 .066 .071 .126	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.34E+04 7.31E+04 1.02E+05	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9 658.0	. 037 . 046 . 049 . 054 . 060 . 065 . 070 . 106 . 134 . 179		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 1.08E+05	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.31E+04 3.11E+04 1.02E+05 1.28E+05	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9 743.2	. 037 . 046 . 049 . 054 . 060 . 065 . 070 . 106 . 134 . 179		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04 3.11E+04 3.93E+04 7.03E+04 1.08E+05	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.23E+04 3.34E+04 7.31E+04 1.02E+05 1.28E+05 1.18E+05	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9 658.0 743.2 842.3	. 037 . 046 . 049 . 054 . 060 . 065 . 070 . 106 . 134 . 179 . 234		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 577.7 748.6 827.3 890.8	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.34E+04 7.31E+04 1.02E+05 1.28E+05 1.28E+05 9.06E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 658.0 743.2 842.3	.037 .046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 1.08E+05 1.08E+05 1.39E+05 9.64E+04	W/M**2
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.11E+04 7.31E+04 1.02E+05 1.28E+05 1.20E+05 1.18E+05 9.06E+04 7.76E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9 743.2 842.3 946.6	.037 .046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358		W/M**2 3.29E+04 3.57E+04 3.05E+04 3.10E+04 3.10E+04 3.11E+04 3.93E+04 1.08E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04	W/M**2
(M) -013 -051 -063 -089 -114 -140 -165 -317 -394 -470 -546 -622 -698 -775	548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6 982.6	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.23E+04 3.11E+04 1.02E+05 1.28E+05 1.20E+05 1.18E+05 9.06E+04 7.76E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.0 743.2 842.3 900.2 946.6 979.7	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) -013 -051 -063 -089 -114 -140 -165 -317 -394 -470 -546 -622 -698 -775 -851	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6 982.6 1010.4	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.31E+04 3.34E+04 1.02E+05 1.28E+05 1.28E+05 1.18E+05 7.76E+04 7.01E+04 6.56E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 658.0 743.2 842.3 900.2 946.6 979.7	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) -013 -051 -063 -089 -1140 -140 -165 -317 -394 -470 -546 -622 -698 -775 -851	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6 982.6 1010.7	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.11E+04 1.02E+05 1.28E+05 1.20E+05 1.8E+05 9.06E+04 7.76E+04 6.56E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 658.0 743.2 842.3 946.6 979.7 1009.0	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) 013 051 063 089 114 140 165 317 394 470 546 622 698 775 851 927	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6 982.6 1010.7 1034.2	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.31E+04 7.31E+04 1.02E+05 1.28E+05 1.20E+05 1.18E+05 9.06E+04 7.76E+04 7.01E+04 5.56E+04	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9 743.2 842.3 900.2 946.6 979.7 1009.0 1032.9	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 8943.6 982.6 1010.7 1034.2 1051.1	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554 .580	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.31E+04 3.34E+04 1.02E+05 1.28E+05 1.28E+05 1.18E+05 1.18E+04 1.01E+04 1.01E	W/M**2	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079	543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 658.0 743.2 946.6 979.7 1009.0 1032.9 996.1	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) 013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 57748.6 827.3 890.8 982.6 1010.7 1034.2 1051.1 1006.0 1006.0	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554 .580	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.34E+04 7.31E+04 1.02E+05 1.28E+05 1.28E+05 1.28E+05 7.76E+04 7.76E+04 7.76E+04 4.48E+04 4.55E+04	5.13E+02 4.39E+03	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	(K) 543.5 551.4 534.2 541.8 537.3 530.8 560.5 658.0 743.2 842.3 946.6 979.7 1009.0 1032.9 996.1 995.7	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) 013 .051 .063 .089 .1140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6 982.6 1010.7 1034.2 1051.1 1006.0 1006.0 963.9	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554 .580 .599	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.11E+04 1.02E+05 1.28E+05 1.20E+05 1.8E+05 9.06E+04 7.76E+04 7.01E+04 6.56E+04 4.55E+04 3.95E+04	5.13E+02 4.39E+03	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 565.9 743.2 842.3 946.6 979.7 1009.0 1032.9 996.1 995.2 953.7	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 579.7 748.6 827.3 890.8 943.6 982.6 1010.7 1034.2 1051.1 1006.0 106.0 106.0 106.0	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554 .580 .599 .610	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.31E+04 3.34E+04 1.02E+05 1.28E+05 1.28E+05 1.18E+05 7.76E+04 7.76E+04 4.55E+04 3.95E+04 3.95E+04	5.13E+02 4.39E+03	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 658.0 743.2 946.6 979.7 1009.0 1032.9 996.1 995.2 953.7 962.0 916.7	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	
(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.283	(K) 548.3 558.7 537.0 546.0 538.8 529.5 534.5 590.1 577.7 748.6 827.3 890.8 943.6 982.6 1010.7 1034.2 1051.1 1006.0 1006.0 967.3 920.1	.037 .046 .049 .055 .061 .066 .071 .126 .170 .229 .293 .354 .407 .450 .488 .522 .554 .580 .599 .610	W/M**2 3.45E+04 3.82E+04 3.15E+04 3.38E+04 3.11E+04 3.34E+04 7.31E+04 1.02E+05 1.28E+05 1.28E+05 1.28E+05 1.26E+04 7.76E+04 7.76E+04 4.55E+04 3.95E+04 3.95E+04 3.92E+04	5.13E+02 4.39E+03	(M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244 1.283 1.321	(K) 543.5 551.4 534.2 541.8 535.6 527.3 530.8 560.5 658.0 743.2 842.2 946.6 979.7 1009.0 1032.9 996.1 995.2 9953.7 962.0 916.7 959.8	.046 .049 .054 .060 .065 .070 .106 .134 .179 .234 .297 .358 .405		3.57E+04 3.05E+04 3.20E+04 3.10E+04 2.96E+04 3.11E+04 3.93E+04 7.03E+05 1.08E+05 1.39E+05 9.64E+04 8.93E+04 8.33E+04	

POINT SERIA	L NO. 12	36.071	(TIME= 103.	.50 SEC)		POINT	SERIAL	NO. 12	36.081	(TIME=	111.5	O SEC)	
(INFERRED V	APOR TEMP)				(INFE	RRED VA	POR TEMP)				
LOOP PRESSU	RE(PE-3)		15.96	MPA		LOOP	PRESSURI	E(PE-3)			5.94 M	PA	
FCV TEMPERA	TURE (TE-F	CV-11)	528.2	K		FCV T	EMPERATI	URE (TE-F	CV-11)		28.1 K		
TEST SECTIO	NTHALPY N:		1.110E+06	J/KG		POINT (INFE LOOP FCV T LHP I TEST	NLET EN	THALPY		1.110	E+06 J	/KG	
PRESSU	RE		3.50	MPA			PRESSURI	E			3.50 M	PA	
SAT TE	MP		515.65	K			SAT TEM	P		51	5.67 K		
MASS F	LUX		21.66	KG/SEC-	M**2		MASS FL	X		2	1.67 K	G/SEC-I	4##2
INLET	QUALITY		035				INLET OF	VII IAL			034		
INLET	ENTHAL PV		1 110F+06	1/KG			INLET FO	NTHAL PY		1 110	E+06 1	/KG	
OHENCH ERON	T.		1.1102.00	0710		OHENC	H ERONT					/ NO	
ELEVAT	LON		614	м		quenc	FIFVATA	ON			706 M		
VELOCI	IV		0127	M/SEC			VELOCITY	V			0105 M	ISEC	
OUALLT	V		2hh	my aco			OHALLTY				257	FULL	
NET THE BOW	ED TO ELL	LD.	0.0	W		NET (HD BUNE	TO FILL	10		0 0 1		
NEI LIF FOW	EN TO FLO	10	0.0	**		HET L	HE FUNE	N TO TLO	10		U.U. W		
VAPOR TEMPE (INFERRED V	RATURE ME	ASUREMENT	LOCATION	INFORMAT	ION	VAPOR	RRED VA	ATURE MEA	ASUREMENT	LOCAT	ION IN	FORMAT	ION
ELEVATION	DZQF	TV	XE XA			ELEVA	TION	DZQF	TV	XE	XA		
(M)	(M)	(K)				(M)		(M)	(K)				
1.232	.618	810.0				1.23	2	.526	760.0	.547	.404		
MALE TEMPER	ATURE MEA	SUBSMENT	LOCATION II	MEORMATI	ON	WALL	TEMPERA	THRE MEAS	SURFMENT	LOCATI	ON INF	ORMATIC	IN
FLEVATION	TEMP	XF	HEAT	FLUX	HEAT LOSS	FLEVA	TION	TEMP	XE	Luciti	HEAT F	LUX	HEAT LOSS
				*#2	W/M##2	(M)		(K)			W/M**	2	W/M**2
100	101	.037 .046 .648	347.11			,,		6.07			11/11		11/11
.013	540.4	.037	3.191	+04		.01	3	536.5 540.9 530.2 536.0 531.1	.037		3.09E+	04	
.051	546.6	.046	3.41	E+04		.05	1	540.9	.045		3.23E+ 2.95E+	04	
.063	532.4	.648	3,001	E+04		.06	3	530.2 536.0 531.1 524.8 526.6 548.6 540.7 575.7	. 048		2.95E+	04	
.089	539.2	.054	3 110	E+04		.08	9	536.0	.053		3.03E+ 2.97E+ 2.88E+	04	
.114	533.6	.059		+04		. 11	ta .	531.1	.058		2.97E+	04	
. 140	526.1	.064	2 92	+04		14	0	524.8	.063		2.88E+	04	
. 165	528.8	.069		E+04		- 16	5	526.6	.068		2.94E+		
.317	554.8	, 102	3.481	F+04		3.1	7	548 6	. 100		3.29E+		
. 394	547.4	. 121	4.00	+04		39	la .	540.7	. 116		3.16E+		
.470	600.9	. 151	7.711	E+04		. 47	0	575.7	. 135		4.22E+		
.546	677.8	. 194	9.231	+04		54	6	606.1	. 160		5.53E+		
.622	742.0	.250	1.24	F+05		62	2	625.0	,201		1.05E+		
.698	847.6	.306	9.631	E+0h		69	8	734.8	.252		9.36E+		
.775	912.4	. 354		+04		77	5	850.3			1.11E+		
	948.2	. 400		104		95	1	885.6	. 360		1.09E+		
.851	982.6	. 444		CAOD		.02	,	929.3	.413		9.63E+		
.927				C+04		1 00	2	968.4					
1,003	1012.5	. 483		C+04		1.00	0	968.4	.459		8.65E+		
1.079	987.4	.513	4.591	C+04		1.07	2	968.5	.495		5.44E+	Ott.	
1.143	985.7	.533	4.801	C+04		1.14	3	965.0	.518		D. 48E+	Die	
1.181	945.0	.545	4.521	C+04		1.18		928.0	.532		4.916+	Oth	
1.244		.563		104		1.24	4	943.8	.551		4.216+	04	
1.283	913.1	.572	3.491	104		1.28	3	905.6	.561		5.48E+ 4.91E+ 4.21E+ 3.65E+ 3.41E+	04	
1.321	957.8	.580	3.20	104		(M) .01 .05 .06 .08 .11 .14 .16 .31 .39 .47 .54 .62 .69 .77 .85 .92 1.00 1.07 1.14 1.18 1.24 1.28 1.32	1	952.6	.570		3.41E+	04	

POINT SERIA			(TIME	= 116	.50 SEC)
(INFERRED V		1		XE 222	APD A	
LOOP PRESSU		CH ST		15.93		
FCV TEMPERA		CA-111		528.1		
LHP INLET E			1.11	ULTUO	J/KG	
TEST SECTIO				Sec. Marcon	*****	
PRESSU					MPA	
SAT TE	THE PARTY OF THE P			15.63		SAME AND
MASS F	The second secon				KG/SEC	-M##5
	QUALITY			.034		
	ENTHALPY		1.11	01.400	J/KG	
QUENCH FROM				200		
ELEVAT	Contract of the Contract of th			.767		
AFFOCI					M/SEC	
QUALIT				.257		
NET LHP POW	ER TO FLU	10		0.0	W	
VAPOR TEMPE			LOCA	TION	INFORMA	TION
(INFERRED V		IV	XE	XA		
ELEVATION			AL	AA		
(M)	(M)	(K)				
				ALC: N		
1.232	.465	725.0	.532	.406		
						ION
WALL TEMPER	ATURE MEA	SUREMENT		ION I	NEORMAT	ION HEAT LOSS
WALL TEMPER	ATURE MEA			ION I	NFORMAT FLUX	HEAT LOSS
WALL TEMPER	ATURE MEA	SUREMENT		ION I	NEORMAT	HEAT LOSS W/M**2
WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION I HEAT W/M	NFORMAT FLUX	HEAT LOSS
WALL TEMPER ELEVATION (M)	TEMP	SUREMENT XE	LOCAT	ION I HEAT W/M	NFORMAT FLUX	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051	TATURE MEA TEMP (K) 534.6 538.2	SUREMENT XE	LOCAT	ION I HEAT W/M	NEORMAT FLUX **2 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063	TEMP (K) 534.6	SUREMENT XE	LOCAT	10N I HEAT W/M 3.04 3.14	NFORMAT FLUX **2 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089	534.6 538.2 529.2 534.5	.037 .045	LOCAT	10N I HEAT W/M 3.04 3.14 2.92	NFORMAT FLUX **2 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114	TEMP (K) 534.6 538.2 529.2 534.5 529.8	.037 .045 .047 .052	LOCAT	10N I HEAT W/M 3.04 3.14 2.92 2.99	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114	534.6 538.2 529.2 534.8 529.8 524.2	.037 .045 .047 .052	LOCAT	3.04 3.14 2.92 2.99 2.95	NFORMAT FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165	534.6 538.2 529.2 534.5 529.8 524.8	.037 .045 .047 .052 .057 .062	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91	NFORMAI FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317	534.6 538.2 529.2 529.8 524.5 524.5 524.5 524.5	.037 .045 .047 .052 .057 .062 .067	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25	NFORMAI FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394	TEMP (K) 534.6 538.2 529.2 529.8 524.2 525.6 545.4	.037 .045 .047 .052 .057 .062 .067	LOCAT	3.04 3.14 2.92 2.95 2.86 2.91 3.25 3.07	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0	.037 .045 .047 .052 .057 .062 .067 .099 .115	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25 3.07 3.80	NFORMAT FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25 3.07 3.80 4.34	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622	TEMP (K) 534.6 538.2 529.2 534.5 529.8 524.5 525.6 545.4 538.6 568.0 593.4	.037 .045 .047 .052 .057 .062 .067 .099 .115 .132	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25 3.07 3.80 4.5.76	NFORMAT FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25 3.07 3.80 4.34 4.34 6.14	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214	LOCAT	3.04 3.14 2.92 2.95 2.86 2.91 3.25 3.25 3.25 3.25 3.25 3.25 3.25 3.25	NFORMAT FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.2 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214 .262 .318	LOCAT	3.04 3.14 2.92 2.95 2.86 2.91 3.25 3.25 3.80 4.34 5.76 8.14 1.18	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	TEMP (K) 534.6 538.2 529.2 529.8 524.5 529.8 524.5 529.8 624.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214 .262 .318	LOCAT	3.04 3.04 3.14 2.92 2.99 2.95 2.86 3.25 3.07 3.80 4.34 4.34 6.14 1.03	NFORMAT FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.5 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4 889.3 932.3	SUREMENT XE .037.045.047.052.057.062.067.155.132.153.179.214.262.3188.375.427	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25 3.07 3.80 4.34 5.76 8.14 1.03	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4 889.3 932.3 931.6	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214 .262 .318 .375 .427	LOCAT	* ION I HEAT W/M 3.04 2.92 2.99 2.95 2.86 2.91 3.25 3.07 4.34 5.76 8.14 1.05 1.18 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4 889.3 932.3 931.6 947.7	SUREMENT XE .037 .045 .047 .052 .057 .066 .067 .099 .115 .132 .153 .179 .214 .262 .318 .375 .427 .470 .498	LOCAT	3.04 3.14 2.92 2.99 2.95 2.81 3.25 3.07 3.80 4.34 5.76 8.14 1.05 1.02 6.48 6.57	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.1143 1.181	TEMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4 889.3 932.3 931.4	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214 .262 .3188 .375 .427 .470	LOCAT	3.04 3.14 2.92 2.99 2.86 2.91 3.25 3.25 3.80 4.34 5.76 6.48 6.571 5.71	NFORMAT FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.244	SATURE MEA 1EMP (K) 534.6 538.2 529.2 534.5 529.8 524.5 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4 889.3 991.6 947.7 914.7 914.7	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214 .262 .318 .375 .427 .470 .498 .513	LOCAT	3.04 3.14 2.92 2.99 2.95 2.86 2.91 3.25 3.07 3.80 4.34 5.76 8.14 1.05 6.48 6.57 5.74	NFORMAT FLUX ***2	HEAT LOSS
WALL TEMPER ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181	TEMP (K) 534.6 538.2 529.2 534.5 529.8 524.2 525.6 545.4 538.6 568.0 593.4 583.3 677.7 745.0 817.4 889.3 932.3 931.4	SUREMENT XE .037 .045 .047 .052 .057 .062 .067 .099 .115 .132 .153 .179 .214 .262 .3188 .375 .427 .470	LOCAT	3.04 3.14 2.92 2.99 2.86 2.91 3.25 3.25 3.80 4.34 5.76 6.48 6.571 5.71	NFORMAT FLUX ***2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+0	HEAT LOSS

LINFERRED V		36.101	(TIME= 12	3.50 SEC)
LOOP PRESSU			15 0	7 MPA	
FCV TEMPERA		CV-III	528.		
LHP INLET E			1.109E+0		
TEST SECTIO	N:				
PRESSU	RE		3.5	O MPA	
SAT TE	MP		515.6		
MASS F				4 KG/SEC	-W**5
	QUALITY		.03		
	ENTHALPY		1.109E+0	6 J/KG	
QUENCH FROM				~ **	
ELEVAT				O M	
VELOCI				0 M/SEC	
QUALIT NET LHP POW		LLD.	.27	0 W	
MET LIF FOR	een to reo		0.	0 #	
VAPOR TEMPE			LOCATION	INFORMA	TION
(INFERRED V			AND THE PERSON NAMED IN COLUMN 1		
ELEVATION		IV	XE XA		
(M)	(M)	(K)			
1.232	. 382	680.0	.500 .40	0	
WALL TEMPER	RATURE MEA	SUREMENT	LOCATION	INFORMAT	ION
		XE		T FLUX	
ELEVATION (M)	TEMP (K)		HEA		
(M)	TEMP (K)	XE	HEA W/	M**2	HEAT LOSS
ELEVATION (M)	TEMP (K) 532.5	XE	HEA W/ 3.0	T FLUX M**2 0E+04	HEAT LOSS
(M) .013 .051	TEMP (K) 532.5 535.4	XE .037 .044	3.0 3.0	T FLUX M**2 0E+04 7E+04	HEAT LOSS
.013 .051 .063	TEMP (K) 532.5 535.4 527.9	037 .044 .047	3.0 3.0 2.9	T FLUX M**2 0E+04 7E+04 2E+04	HEAT LOSS
.013 .051 .063 .089	TEMP (K) 532.5 535.4 527.9 532.8	037 .044 .047 .052	HEA W/ 3.0 3.0 2.9 2.9	T FLUX M**2 0E+04 7E+04 2E+04 7E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114	TEMP (K) 532.5 535.4 527.9 532.8 528.4	037 .044 .047 .052	HEA W/ 3.0 3.0 2.9 2.9 2.9	T FLUX M**2 0E+04 7E+04 2E+04 7E+04 3E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5	037 .044 .047 .052 .057	HEA W/ 3.0 3.0 2.9 2.9 2.9 2.9	T FLUX M**2 0E+04 7E+04 2E+04 7E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165	532.5 535.4 527.9 532.8 528.4 523.5 524.6	037 .044 .047 .052	HEA W/ 3.0 3.0 2.9 2.9 2.9 2.8 2.8	T FLUX M**2 0E+04 7E+04 2E+04 7E+04 3E+04 5E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317	532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4	XE 037 .044 .047 .052 .057 .062	HEA W/ 3.0 3.0 2.9 2.9 2.9 2.8 3.1	T FLUX M**2 0E+04 7E+04 7E+04 7E+04 3E+04 5E+04 9E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1	037 .044 .047 .052 .057 .062 .067	HEA W/ 3.0 3.0 2.9 2.9 2.8 2.8 3.1 3.0	T FLUX M**2 0E+04 7E+04 2E+04 7E+04 3E+04 5E+04 9E+04 7E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1	XE 037 .044 .047 .052 .057 .062 .067 .098	HEA W/ 3.0 3.0 2.9 2.9 2.9 2.8 3.1 3.0 3.5	T FLUX M**2 0E+04 7E+04 2E+04 7E+04 3E+04 5E+04 9E+04 7E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1 560.3 582.0	XE 037 .044 .047 .052 .057 .062 .067 .098 .113	HEA W/ 3.0 3.0 2.9 2.9 2.9 2.8 3.1 3.0 3.5 3.5	T FLUX M**2 00E+04 7E+04 2E+04 7E+04 3E+04 5E+04 9E+04 7E+04 5E+04 3E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1 560.3 582.0 569.3	XE 037 .044 .047 .052 .057 .062 .067 .098 .113	HEA W/ 3.0 3.0 2.9 2.9 2.8 3.1 3.0 3.5 3.8	T FLUX M##2 00E+04 7E+04 2E+04 7E+04 3E+04 9E+04 7E+04 5E+04 3E+04 8E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 560.3 582.0 569.3	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130	HEA W/ 3.0 3.0 2.9 2.9 2.8 3.1 3.0 3.5 3.8 3.9 6.0	T FLUX M**2 0E+04 7E+04 2E+04 3E+04 5E+04 9E+04 7E+04 5E+04 5E+04 8E+04 8E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1 560.3 582.0 569.3	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149	HEA W/ 3.0 3.0 2.9 2.9 2.8 3.1 3.0 3.5 3.8 3.9 6.0 8.3	T FLUX M**2 10E+04 7E+04 2E+04 3E+04 3E+04 9E+04 7E+04 3E+04 3E+04 3E+04 3E+04 3E+04 3E+04 2E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1 560.3 582.0 569.3 612.4 663.3	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149 .169	HEA W/ 3.0 3.0 2.9 2.9 2.8 2.8 3.1 3.0 3.5 3.8 3.9 6.0 8.3	T FLUX M**2 0E+04 7E+04 2E+04 7E+04 3E+04 5E+04 5E+04 5E+04 5E+04 8E+04 8E+04 7E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.3 582.0 569.3 612.4 663.3 707.2	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149 .169	HEA W/ 3.0 3.0 2.9 2.8 2.8 2.8 3.1 3.5 3.5 3.8 6.0 8.3	T FLUX M**2 0E+04 7E+04 2E+04 3E+04 3E+04 9E+04 5E+04 3E+04 8E+04 2E+04 4E+04 2E+04 4E+	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1 560.3 582.0 569.3 612.4 663.3 707.2	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149 .169 .194 .231 .278	HEA W/ 3.0 3.0 2.9 2.9 2.8 3.1 3.0 3.5 3.8 3.9 6.0 8.3 1.0	T FLUX M**2 0E+04 7E+04 2E+04 3E+04 5E+04 9E+04 7E+04 5E+04 4 5E+04 4 8E+04 4 8E+04 7E+04 8E+04 7E+05 6E+05 6E+05	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 560.3 582.0 569.3 612.4 663.3 707.2 816.9	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149 .169 .194 .231 .278 .333 .387	HEA W/ 3.0 3.0 2.9 2.9 2.8 3.1 3.0 3.5 3.8 3.9 6.0 8.3 1.0 7.6	T FLUX M**2 0E+04 7E+04 2E+04 3E+04 5E+04 5E+04 5E+04 5E+04 3E+04 5E+04 4E+04 7E+04 8E+04 7E+05 6E+05 3E+05	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079	532.5 535.4 527.9 532.8 528.4 523.5 524.6 541.4 536.1 560.3 582.0 569.3 663.3 707.2 816.9 918.7	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149 .169 .194 .231 .278 .333 .387 .432	HEA W/ 3.0 2.9 2.8 2.8 2.8 3.1 3.0 3.5 3.8 3.9 6.0 1.1 1.0 7.6	T FLUX M**2 0E+04 7E+04 2E+04 7E+04 3E+04 5E+04 5E+04 5E+04 5E+04 5E+04 5E+04 5E+04 3E+04 3E+04 3E+04 3E+04 3E+04 3E+05 6E+05 3E+05 6E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	TEMP (K) 532.5 535.4 527.9 532.8 528.4 523.5 524.6 536.1 560.3 582.0 569.3 612.4 663.3 707.2 816.9 872.9 913.8	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .130 .149 .169 .194 .231 .278 .333 .387 .432	HEA W/ 3.0 3.0 2.9 2.8 2.8 3.1 3.5 3.8 3.6 0.0 8.3 1.0 7.6 7.6	T FLUX M**2 10E+04 7E+04 2E+04 3E+04 5E+04 9E+04 7E+04 5E+04 5E+04 5E+04 2E+04 8E+04 7E+04 2E+05 6E+05 6E+05 6E+04 2E+04	HEAT LOSS W/M**2
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181	TEMP (K) 532.5 535.4 527.9 538.4 528.4 528.5 524.6 541.4 536.1 560.3 582.0 569.3 612.4 663.3 707.2 816.9 872.9 918.8 888.1	XE 037 .044 .047 .052 .057 .062 .067 .098 .113 .139 .149 .169 .194 .231 .278 .333 .387 .432 .465 .483	HEA W/ 3.0 3.0 2.9 2.8 2.8 2.8 3.0 3.5 3.9 6.0 1.1 1.0 7.6 6.1 6.0 4.7	T FLUX M**2 0E+04 7E+04 2E+04 3E+04 5E+04 9E+04 7E+04 5E+04 8E+04 8E+04 7E+04 8E+04 8E+04 7E+05 0E+05 3E+05 0E+05 0E+05	HEAT LOSS W/M**2

1,181

1.244

1.283

1.321

851.0

864.6

872.2

930.8

.442

.485

.507

.519

8.22E+04

1.20E+05

5.10E+04

4.33E+04

INEL POST-CHE EXPERIMENT NO. 236

POINT SERIAL NO. 1236.111 (TIME= 131.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 15.94 MPA FCV TEMPERATURE (TE-FCV-1T) 527.9 K LHP INLET ENTHALPY 1.109E+06 J/KG TEST SECTION: PRESSURE 3.50 MPA SAT TEMP 515.64 K MASS FLUX 21.69 KG/SEC-M**2 INLET QUALITY .034 INLET ENTHALPY 1.109E+06 J/KG QUENCH FRONT: ELEVATION .932 M VELOCITY .0103 M/SEC QUALITY .286 NET LIP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF XE XA (M) (M) (K) 1.232 .300 630.0 .475 .402 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M**2 W/M**2 (M) (K) .013 530.6 .036 2.96E+04 .051 532.9 .044 3.01E+04 .046 2.89E+04 .063 526.8 .089 531.2 .051 2.94E+04 .114 527.2 .056 2.91E+04 .140 523.0 .061 2.85E+04 . 165 523.7 .066 2.87E+04 .317 537.9 .097 3.10E+04 .112 . 394 533.7 3.01E+04 .470 553.6 .128 3.36E+04 . 146 .546 571.9 3.68E+04 .165 .622 559.6 3.59E+04 .698 589.2 .185 4.45E+04 .775 611.1 .209 4.88E+04 .240 7.21E+04 .851 609.3 .927 710.3 .283 9.75E+04 1.003 773.8 .337 1.13E+05 8.07E+04 1.079 874.4 .386 1.143 868.0 .421 8.36E+04

	INEL POS	T-CHF EXP	ERIME	NI NO.	236	
POINT SERIA	L NO. 12	36,121	TIME:	= 137.5	O SEC)	
(INFERRED V	APOR TEMP)		. 17 19		
LOOP PRESSU	RE(PE-3)			15.93 M	1PA	
FCV TEMPERA	TURE (TE-F	CV-11)		527.9 F		
LHP INLET E	NTHALPY			9E+06 J		
TEST SECTIO	N:					
PRESSU	RE			3.50 M	1PA	
SAT TE	MP		5	15.63 1	(
MASS F	LUX		1	21.71	G/SEC-	M**2
7.77.79.2.19	QUALITY			.034		
	ENTHALPY		1.10	9E+06 .	I/KG	
QUENCH FROM	1:					
ELEVAT	ION			.996 N	4	
VELOCI	TY			.0111 #	M/SEC	
QUALIT	Y			.298		
NET LHP POW	ER TO FLU	1D		0.0	4	
VAPOR TEMPE	DATINGE ME	ASHREMENT	LOCA	TION II	NE ORMAT	ION
(INFERRED V			Lour			1 2011
ELEVATION	DZQF	TV	XE	XA		
(M)	(M)	(K)	116	An		
(11)	(11)	101				
1.232	.236	590.0	.470	.417		
WALL TEMPER	ATURE MEA	SHREMENT	LOCAT	LON IN	CORMATI	ON
ELEVATION	TEMP	XE	LUCAI	HEAT		HEAT LOSS
(M)	(K)	N.E.		W/M*		W/M##2
(11)	()			11/11		H/HE
.013	529.5	.036		2.95E	+04:	
.051	531.4	. 044		2.98E	+04	
.063	526.1	.046		2.89E	+04	
.089	530.1	.051		2.93E	+04	
. 114	526.4	.056		2.90E	+04	
. 140	522.6	.061		2.85E	+04	
. 165	523.1	.066		2.87E	+04	
. 317	535.7	.097		3.08E	+04	
. 394	532.1	.112		3.00E	+04	
.470	549.7	. 128		3.28E	+04	
.546	565.7	. 146		3.55E	+04	
.622	554.2	. 164		3.43E		
.698	578.5	. 183		4.01E	+04	
.775	598.4	.204		4.17E	+04	
.851	572.0	.226		4.54E	+04	
.927	638.5	.258		8.11E	+04	
1.003	680.7	. 303		9.46E		
1.079	834.8	. 346		7.39E	+04	
1.143	815.3	. 390		1.34E	+05	
1.181	792.1	.424		1.27E	+05	
1.244	830.6	.482		1.47E	+05	
1.283	855.0	.508		5.68E	+04	
1.321	919.5	.522		4.84E	+04	

PGINT SERIAL NO. 1236.131 (TIME= 140.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 15.97 MPA FCV TEMPERATURE (TE-FCV-1T) 527.9 K LHP INLET ENTHALPY 1.109E+06 J/KG TEST SECTION: 3.50 MPA PRESSURE SAT TEMP 515.63 K 21.58 KG/SEC-M**2 MASS FLUX INLET QUALITY .034 1.109E+06 J/KG INLET ENTHALPY QUENCH FRONT: 1.029 M ELEVATION .0111 M/SEC VELOCITY .309 QUALITY 0.0 W NET LHP POWER TO FLUID VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP)

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA (M) (M) (K) 1.232 .203 570.0 .470 .428

ELEVATION -	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	M/W**5
.013	529.2	.036	2.95E+04	
.051	531.1	.044	2.97E+04	
.063	525.9	.046	2.89E+04	
.089	529.9	.051	2.93E+04	
. 114	526.2	.056	2.90E+04	
. 140	522.5	.061	2.85 E+04	
. 165	523.0	.066	2.87E+04	
.317	535.2	.097	3.07E+04	
. 394	531.7	.112	3.012+04	
.470	548.7	. 128	3.26E+04	
.545	564.1	. 146	3.52E+04	
.622	552.9	. 163	3.39E+04	
.698	576.0	. 182	3.93E+04	
.775	595.6	.202	4.05E+04	
.851	568.3	.223	4.15E+04	
.927	613.7	.253	7.40E+04	
1.003	589.4	. 295	9.12E+04	
1.079	825.1	.337	7.29E+04	
1.143	803.0	. 384	1.43E+05	
1.181	795.5	.420	1.38E+05	
1.244	750.4	.483	1.59E+05	
1,283	850.1	.511	5.90E+04	
		W 1945	E ObEADA	

.525

916.2

1.321

5.04E+04

INEL POST-CHE EXPERIMENT NO. 237

POINT SERIAL NO. 1237.011 (INFERRED VAPOR TEMP)	{TIME= 205	.50 SEC)
LOOP PRESSURE(PE-3)	15.96	MPA
FCV TEMPERATURE (TE-FCV-1T)		
LHP INLET ENTHALPY	1.132E+06	J/KG
TEST SECTION:		
PRESSURE	3.50	MPA
SAT TEMP	515.66	K
MASS FLUX	19.12	KG/SEC-M##2
INLET QUALITY	.047	
INLET ENTHALPY	1.132E+06	J/KG
QUENCH FRONT:		
ELEVATION	.622	M
VELOCITY	.0020	M/SEC
QUALITY	.495	
NET LHP POWER TO FLUID	0.0	W

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF TV XE XA (M) (M) (K)

WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION	1000
ELEVATION TEMP XE HEAT FLUX HEAT	1.033
(M) (K) W/M**2 W/M*	*2
.013 527.4 .056 9.12E+04	
.051 529.7 .082 9.12E+04	
.063 526.7 .091 9.11E+04	
.089 529.1 .108 9.12£+04	
.140 525.8 .143 9.08E+04	
.165 524.5 .161 9.09E+04	
.317 531.4 .266 9.16E+04	
.394 531.6 .320 9.18E+04	
.470 545.2 .373 9.39E+04	
.546 568.5 .429 9.97E+04	
.622 757.4 .495 1.28E+05	
.698 944.1 .564 1.08E+05	
.775 1017.5 .625 1.06E+05	
.851 1081.1 .685 1.01E+05	
.927 1139.3 .742 9.51E+04	
1.003 1196.5 .797 9.32E+04	
1.079 1156.9 .849 8.60E+04 3.50E	+03
1.143 1193.0 .890 8.50E+04 2.75E	
1.181 1135.8 .913 7.48E+04 1.19E	
1.245 1178.3 .951 8.17E+04	
1.283 1119.3 .976 8.88E+04	
1.321 1152.1 1.001 8.75E+04	

POINT SERIAL NO. 1237.021 (TIME= 260.50 SEC) POINT SERIAL NO. 1237.031 (TIME= 299.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) 15.97 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 15.95 MPA 532.5 K FCV TEMPERATURE (TE-FCV-11) FCV TEMPERATURE (TE-FCV-1T) 532.5 K LHP INLET ENTHALPY 1.131E+06 J/KG LHP INLET ENTHALPY 1.131E+06 J/KG TEST SECTION: TEST SECTION: 3.50 MPA PRESSURE PRESSURE 3.50 MPA SAT TEMP 515.63 K SAT TEMP 515.63 K 19.24 KG/SEC-M**2 MASS FLUX MASS FLUX 19.13 KG/SEC-M**2 INLET QUALITY .047 INLET QUALITY .047 INLET ENTHALPY 1.131E+06 J/KG INLET ENTHALPY 1.131E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .685 M ELEVATION .711 M .0007 M/SEC VELOCITY VELOCITY .0007 M/SEC .522 QUALITY QUALITY .543 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION ELEVATION DZQF DZQF XA (M) (M) (K) (M) (M) (K) .910 .624 1.232 .547 840.0 1,232 .520 830.0 .913 .632 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 (M) (K) W/M**2 W/M##2 .055 .013 525.4 8.99E+04 .013 525.4 .055 8.99E+04 9.00E+04 .051 .051 527.4 .081 527.1 .081 9.01E+04 9.00E+04 .063 525.4 .090 .063 525.1 .090 9.00E+04 . 107 .108 .089 527.1 9.01E+04 .089 526.7 9.00E+04 9.02E+04 . 114 524.7 . 125 . 114 524.4 . 125 8.99E+04 9.00E+04 525.4 . 140 . 140 . 142 525.3 . 142 8.98E+04 . 159 . 165 . 165 523.8 9.00E+04 523.7 . 160 8.99E+04 .264 .317 527.4 9.04E+04 .317 528.4 .265 9.01E+04 .316 . 394 528.8 9.03E+04 . 394 527.6 .317 9.01E+04 9.10E+04 .368 .470 .470 534.3 530.8 . 369 9.05E+04 .421 9.19E+04 .546 534.1 .546 540.4 .422 9.08E+04 .474 9.29E+04 .622 543.9 .622 534.2 .475 9.12E+04 .533 .533 .698 639.9 1,09E+05 .698 557.1 1.07E+05 .775 941.0 .592 9.775+04 .775 908.2 .594 1.03E+05 1025.6 .649 9.90E+04 .851 1002.9 .851 .652 9.70E+04 .705 1092.7 9.71E+04 .927 1079.4 .927 .707 9.56E+04 .761 .762 9.79E+04 1.003 1151.3 1.003 1136.8 9.45E+04 2.03E+03 .816 1.079 1142.9 .816 9.25E+04 -1.0791129.8 9.27E+04 1.91E+03 1.94E+03 .860 9.07E+04 1.143 1.143 1172.7 1162.9 .861 9.19E+04 3.29E+03 .885 1.181 1.181 8.00E+04 1.06E+04 1117.2 .886 8.23E+04 1118.7 9.17E+03 1.245 .925 8.63E+04 .928 1158.4 1.245 1154.3 8.88E+04 .954 1,283 1101.6 .950 9.25E+04 1.283 1104.6 9.17E+04 1.321 1135.7 .977 9.30E+04 1.321 1141.1 .980 9.05E+04

POINT SERIA			LITTE	- 303	. 20 SEL	,
LOOP PRESSU				16.02	MPA	
FCV TEMPERA		CV-1T1		532.7		
LHP INLET E		01-117		2E+06		
TEST SECTIO			1.13	25,00	3/10	
PRESSU				3.50	BADA	
SAT TE				15.65		
MASS F			3		KG/SEC	-MWW-2
				.047	KO/ SEC	-M5
	QUALITY		1 12	2E+06	1140	
	Action to the control of		1.13	21,400	3/10	
QUENCH FROM				.718	24	
VELOCI					M/SEC	
QUALIT				.549		
NET LHP POW		LLEN		0.0		
NEI LHF FUN	ER TO FEE	7110		0.0	**	
VAPOR TEMPE			T LOCA	TION	INFORMA	TION
ELEVATION	DZQF	TV	XE	XA		
(M)	(M)	(K)	27.6	250		
(m)	(m)	(,)				
1.232	.514	820.0	.924	.646		
WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION II	NEORMAT	ION
ELEVATION	TEMP	ASUREMENT XE		HEAT	FLUX	HEAT LOSS
					FLUX	
ELEVATION (M)	TEMP (K)			HEAT	FLUX	HEAT LOSS
ELEVATION (M)	TEMP (K) 525.3	XE	6	HEAT W/M	FLUX **2 E+04	HEAT LOSS
ELEVATION (M) .013	TEMP (K) 525.3 527.0	XE . 056	6 2	HEAT W/M	FLUX **2 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063	TEMP (K) 525.3 527.0 524.9	.056 .08	6 2 1	8.991 9.011	FLUX **2 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089	TEMP (K) 525.3 527.0 524.9 526.5	.056 .083 .09	6 2 1 8	8.991 9.011 8.991	FLUX **2 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114	TEMP (K) 525.3 527.0 524.9 526.5 524.3	.056 .083	6 2 1 8 5	8.991 9.011 8.991 9.001	FLUX **2 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114	TEMP (K) 525.3 527.0 524.9 526.5 524.3 525.2	.056 .083 .099 .100 .129	6 2 1 8 5 3	8.991 9.011 8.991 9.001 8.991 8.991	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165	7EMP (K) 525.3 527.0 524.9 526.5 524.3 525.2 523.7	.050 .083 .097 .100 .121 .144	6 2 1 8 5 3	8.991 9.011 8.991 9.001 8.991 8.991 8.991	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317	TEMP (K) 525.3 527.0 524.9 526.5 524.3 525.2 523.7 527.1	.056 .08 .09 .100 .12 .14 .16	6 2 1 8 5 3 0 5	8.991 9.011 8.991 9.001 8.991 8.991 8.991 9.011	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317	TEMP (K) 525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.1	.050 .083 .09 .100 .121 .14 .166 .261	6 2 1 8 5 3 3 0 5 7	8.991 9.011 8.991 9.001 8.991 8.991 8.991 9.011 9.021	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470	TEMP (K) 525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.1 527.1	.056 .087 .09 .108 .121 .14 .166 .265 .31	6 2 1 8 5 3 3 0 5 7 0	8.991 9.011 8.991 9.001 8.991 8.991 9.021 9.021	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546	7EMP (K) 525.3 527.0 524.9 526.5 524.3 525.2 523.7 527.1 527.3 530.1	.056 .083 .09 .106 .122 .144 .166 .266 .31	6 2 1 1 8 5 3 3 0 0 5 5 7 7 0 3	8.991 9.001 8.991 9.001 8.991 8.991 9.011 9.021 9.041	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622	TEMP (K) 525.3 527.0 524.9 526.5 524.3 525.2 523.7 527.1 527.3 530.1 533.0 533.7	.056 .083 .099 .106 .129 .144 .166 .266 .311 .377 .422 .479	6 2 1 1 8 5 3 3 0 0 5 7 7 0 0 3 5	8.991 9.011 8.991 9.001 8.991 8.991 8.991 9.011 9.021 9.041 9.071 9.101	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698	TEMP (K) 525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.1 533.0 532.7 551.5	.050 .083 .099 .100 .129 .14. .166 .261 .37 .423 .427	622 1 8 8 5 3 3 0 0 5 7 0 0 3 3 5 5 3	8.991 9.011 8.991 9.000 8.991 8.991 8.991 9.021 9.041 9.071 9.101 1.071	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775	TEMP (K) 525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.1 533.0 532.7 551.5 892.7	.056 .087 .09 .108 .12 .14 .166 .269 .31 .376 .42 .477 .53	6 2 1 8 8 5 3 3 0 5 5 7 0 3 5 5 5 5 6 6	HEAT W/M* 8.991 9.011 8.991 9.001 8.991 9.021 9.041 9.071 9.1071 1.101	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	TEMP (K) 525.3 527.0 524.3 526.5 524.3 525.2 527.1 527.3 530.1 533.0 532.7 551.5 897.4	.056 .083 .099 .100 .122 .144 .166 .266 .311 .376 .422 .477 .533 .599	6 2 1 8 5 5 3 0 0 5 7 7 0 3 5 5 3 6 6 6	8.991 8.991 8.991 8.991 8.991 8.991 8.991 9.011 9.021 9.041 9.071 9.101 1.107 1.100 9.591	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851	TEMP (K) 525.3 527.0 524.9 526.5 524.3 525.2 523.7 527.1 527.3 530.1 533.0 532.7 551.5 892.7 997.4	.056 .083 .099 .100 .129 .144 .166 .266 .31 .377 .423 .471 .53	62 1 1 8 8 5 3 3 0 5 5 7 7 0 3 3 3 6 6 6 3 3 6 6 3 3 3 6 6 3 3 3 6 3 3 3 6 3 3 3 6 3	8.991 8.991 8.991 9.001 8.991 8.991 9.021 9.041 9.041 9.041 9.101 1.071 1.101 9.584	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927	525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.1 533.0 532.7 597.4 1072.8	.050 .083 .099 .100 .122 .14. .166 .261 .37. .423 .477 .533 .599 .656	621 1853 3005 577 033 553 6663 300	8.991 9.011 8.991 9.001 8.991 8.991 9.021 9.021 9.041 9.071 9.1071 1.101 9.591 9.841 9.771	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS W/M**2
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003	525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.1 533.0 532.7 551.7 591.7 997.4 1072.8 1131.6 1125.2	.056 .087 .09 .108 .12 .14 .166 .269 .31 .376 .42 .477 .53 .596 .656 .71	62 1 8 8 5 3 3 0 5 7 7 0 3 5 5 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	HEAT W/M' 8.991 9.011 8.991 9.001 8.991 9.021 9.021 9.041 9.071 1.100 9.591 9.841 9.771	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS W/M##2
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	525.3 527.0 524.3 526.5 524.3 525.2 523.7 527.3 530.1 532.7 551.5 892.7 997.4 1072.8 1131.6 1125.2	.056 .083 .099 .100 .125 .144 .166 .265 .311 .370 .425 .477 .533 .590 .655 .711 .770 .822 .87	62 1 1 8 5 3 0 5 7 7 0 3 3 5 3 6 6 6 3 3 0 6 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1	8.991 9.011 8.991 9.001 8.991 9.001 9.021 9.041 9.071 1.071 1.101 9.599 8.411 9.777 9.411	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	1.83E+03 2.17E+03
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181	TEMP (K) 525.3 527.0 524.9 524.9 524.3 525.2 523.7 527.1 527.3 530.1 533.0 532.7 551.5 892.7 997.4 1072.8 1131.6 1125.2 1118.4	.050 .083 .099 .100 .129 .144 .166 .266 .31 .377 .423 .477 .53 .599 .656 .777 .827 .879	621 8853 0557 03355 36663 0661	8.991 9.001 8.991 9.001 8.991 8.991 9.021 9.041 9.071 9.101 1.071 1.100 9.591 9.771 9.331 8.381	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	HEAT LOSS W/M**2
ELEVATION (M) .013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143 1.181 1.245	TEMP (K) 525.3 527.0 524.9 526.3 525.2 523.7 527.1 527.3 530.1 533.0 532.7 597.4 1072.8 1131.6 1125.2 1158.2 11158.2	XE .050 .083 .099 .100 .129 .14 .166 .261 .31 .376 .422 .477 .533 .590 .656 .711 .776 .822 .87	621 1853 3005 570 3353 6663 30661 1779	8.991 9.011 8.991 9.001 8.991 8.991 9.021 9.021 9.071 9.101 1.071 1.101 9.591 9.841 9.771 9.411 9.333 8.381 8.981	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	1.83E+03 2.17E+03
.013 .051 .063 .089 .114 .140 .165 .317 .394 .470 .546 .622 .698 .775 .851 .927 1.003 1.079 1.143	TEMP (K) 525.3 527.0 524.9 524.9 524.3 525.2 523.7 527.1 527.3 530.1 533.0 532.7 551.5 892.7 997.4 1072.8 1131.6 1125.2 1118.4	.050 .083 .099 .100 .129 .144 .166 .266 .31 .377 .423 .477 .53 .599 .656 .777 .827 .879	621 1853 0057 03353 6663 0661 17796	8.991 9.001 8.991 9.001 8.991 8.991 9.021 9.041 9.071 9.101 1.071 1.100 9.591 9.771 9.331 8.381	FLUX **2 E+04 E+04 E+04 E+04 E+04 E+04 E+04 E+04	1.83E+03 2.17E+03

POINT SERIA		THE RESERVE OF THE PARTY OF THE	(TIME	= 430	.50 SEC)
(INFERRED V)		** **	****	
LOOP PRESSU				15.97		
FCV TEMPERA		CA-11)		532.7		
LHP INLET E			1.13	12E+06	J/KG	
TEST SECTIO	117.2			2 50	MEDA	
PRESSU				3.50		
SAT TE			. 3	15.63	KG/SEC-	M##2
MASS F						-M5
	QUALITY			.047		
	ENTHALPY		1.13	2E+06	3/86	
QUENCH FROM				270		
ELEVAT	30.000			.769		
VELOCI				.660	M/SEC	
QUALIT				0.0		
NET LHP POW	KER TO FLU	110		0.0	34	
VAPOR TEMPE			LOCA	TION	INFORMA	TION
(INFERRED V		TV	XE	XA		
ELEVATION	DZQF		XE.	AA		
(M)	(M)	(K)				
1.232	.463	800.0	.988	.703		
WALL TEMPER	ATURE MEA	SHEEMENT	LOCAT	TON I	NEORMAT	ION
ELEVATION	TEMP	XE		HEAT	FLUX	HEAT LOSS
(M)	(K)				##2	W/M**2
(111)	101					316.17
.013	525.0	.05	7	1.04	E+05	
.051	526.7	.08	7	1.04	E+05	
.063	525.1	.09	7	1.04	E+05	
.089	526.1	. 110	8	1.04	E+05	
. 114	524.1	. 138	3	1.04		
. 140	525.6	. 150		1.05	E+05	
. 165	523.6	. 179	7	1.04	E+05	
. 317	526.5	. 300)	1.04		
. 394	527.0	, 36	1	1.05		
.470	523.9	.427	2	1.04	E+05	
.546	527.2	.48	3	1.04	E+05	
.622	526.6	. 54		1.05	E+05	
.698	541.4	.60	3	9.77	E+04	
. 175	943.5	.665	5	1.14	E+05	
.851	1085.6	.720	5	9.67	E+04	
.927	1151.7	. 782	2	9.63	E+04	
1.003	1206.6	.83	7	9.44	E+04	
1.079	1176.4	.89	1	9.08	E+04	6.18E+03
1.143	1224.5	.935	5	9.29	E+04	2.83E+03
1.181	1170.4	.96	1	8.34		1.26E+04
1.245	1203.0	1.00	3	9.02		
1.283	1141.5	1.03	1	1.02		
1.321	1176.7	1.060)	1.00	E+05	

1.181

1.245

1.283

1.321

1166.1

1124.1

1141.1

1100.1

1136.4

.823

. 846

.889

.914

.939

9.19E+04

8.19E+04

8.35E+04

8.73E+04

8.52E+04

5.60E+02

6.59E+03

INEL POST-CHE EXPERIMENT NO. 237

POINT SERIAL NO. 1237.061 (TIME= 500.50 SEC) POINT SERIAL NO. 1237.071 (TIME= 536.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 15.95 MPA LOOP PRESSURE (PE-3) 15.95 MPA FCV TEMPERATURE (TE-FCV-1T) 532.4 K FCV TEMPERATURE (TE-FCV-11) 531.9 K LHP INLET ENTHALPY 1.131E+06 J/KG LHP INLET ENTHALPY 1.128E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.50 MPA PRESSURE 3.49 MPA SAT TEMP 515.65 K SAT TEMP 515.59 K MASS FLUX 18.83 KG/SEC-M**2 MASS FLUX 18.86 KG/SEC-M##2 INLET QUALITY .046 INLET QUALITY .045 INLET ENTHALPY 1.131E+06 J/KG INLET ENTHALPY 1.128E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .793 M ELEVATION .805 M VELOCITY .0003 M/SEC VELOCITY .0003 M/SEC QUALITY .569 . 561 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF IV XE ELEVATION DZQF IV XA XE XA (M) (M) (K) (M) (M) (K) 1.232 .439 780.0 .874 .634 1.232 .426 760.0 .854 .631 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP HEAT FLUX HEAT LOSS XE W/M**2 (M) (K) W/M##2 (M) (K) M/W##5 W/M**2 .013 524.4 .054 524.4 8.35E+04 .013 .053 8.36E+04 .051 525.6 .079 8.35E+04 .051 525.5 .078 8.36E+04 .063 523.9 .087 8.35E+04 523.9 .086 8.36E+04 .063 .089 525.1 . 104 8.36E+04 .089 524.8 . 102 8.36E+04 .114 523.4 .120 8.36E+04 .119 . 114 523.3 8.36E+04 . 140 524.8 . 136 8.36E+04 .140 524.8 8.36E+04 . 135 . 165 . 153 522.9 8.35E+04 . 165 . 152 8.36E+04 522.8 .317 525.2 .251 8.36E+04 .317 525.0 .250 8.35E+04 .394 525.5 .300 8.35E+04 . 394 525.3 .299 8.37E+04 .470 525.3 . 349 8.35E+04 .470 525.1 . 348 8.37E+04 .546 525.4 .398 8.36E+04 .546 525.0 . 398 8.37E+04 .622 523.8 .447 8.36E+04 .622 523.4 . 447 8.36E+04 .698 527.7 .496 8.41E+04 .698 526.1 .496 8.38E+04 .775 604.4 .547 9.07E+04 .775 564.3 .547 9.03E+04 .851 964.6 .603 1.00E+05 .851 918.1 .602 9.40E+04 .927 1041.9 .662 9.90E+04 .655 .927 1012.2 8.66E+04 1.003 1118.3 .720 9.95E+04 1,003 1080.9 8.79E+04 .706 1.079 1129.0 .777 9.35E+04 1.079 1096.4 .758 8.91E+04 9.15E+02

1.143

1.181

1.244

1.283

1,321

1131.0

1098.7

1122.6

1089.4

1130.1

.802

.827

.868

.894

.920

9.04E+04

8.35E+04

8.43E+04

8.99E+04 8.82E+04 9.92E+02

5.47E+03

.888

.913

1080.0

1123.1

1.283

1.321

8.42E+04

8.46E+04

POINT SERIAL NO. 1237.081 (TIME= 585.50 SEC) POINT SERIAL NO. 1237.091 (TIME= 685.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 15.97 MPA LOOP PRESSURE (PE-3) 15.95 MPA 532.2 K FCV TEMPERATURE (TE-FCV-1T) 532.2 K FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY 1.130E+06 J/KG LHP INLET ENTHALPY 1.130E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.49 MPA PRESSURE 3.50 MPA SAT TEMP 515.60 K SAT TEMP 515.64 K 18.88 KG/SEC-M**2 MASS FLUX 18.67 KG/SEC-M**2 MASS FLUX INLET QUALITY .046 INLET QUALITY .046 1.130E+06 J/KG INLET ENTHALPY 1.130E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: ELEVATION .910 M .832 M ELEVATION .0007 M/SEC VELOCITY .0010 M/SEC VELOCITY .556 .587 QUALITY QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) TV DZQF TV XA ELEVATION DZQF XA ELEVATION (00) (K) (M) (K) (M) (M) 1,232 710.0 .754 .585 .322 .399 770.0 .857 .627 1.232 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS TEMP XE HEAT FLUX HEAT FLUX HEAT LOSS ELEVATION ELEVATION TEMP XE (M) (K) W/M##2 W/M##2 W/M**2 (K) W/M##2 (M) 523.9 .053 7.15E+04 8.34E+04 .013 .013 524.3 .054 524.8 .074 7.15E+04 .051 .078 525.3 8.33E+04 .051 .081 .063 523.5 7.15E+04 8.34E+04 .063 523.7 .087 524.2 .095 7.16E+04 .103 .089 .089 524.6 8.34E+04 .114 7.15E+04 523.1 . 109 .114 .119 8.33E+04 523.2 7.15E+04 . 123 . 136 . 140 524.0 8.34E+04 . 140 524.6 522.3 . 137 7.15E+04 . 152 . 165 522.5 8.33E+04 . 165 524.3 .222 7.16E+04 .317 .250 .317 524.8 8.34E+04 . 394 524.2 .264 7.15E+04 8.34E+04 . 394 525.1 .299 .307 7.15E+04 .470 523.9 8.34E+04 524.9 . 348 .470 524.4 . 349 7.15E+04 .397 .546 8.33E+04 523.8 .546 .622 523.2 .391 7.15E+04 .445 8.33E+04 523.2 .622 522.6 .433 7.15E+04 .698 .698 8.37E+04 524.8 . 494 7.22E+04 8.72E+04 .775 529.1 .476 .775 545.8 .545 541.3 .519 7.40E+04 .600 1.02E+05 .851 847.8 .851 .927 804.7 .567 8.77E+04 .655 1013.0 8.70E+04 .927 1,003 970.3 .617 8.10E+04 .706 8.63E+04 1081.9 1.003 8.84E+04 1.079 1015.0 . 664 7.85E+04 .758 1.079 1087.8 .702 1038.6 7.84E+04 .800 1.143 8.48E+04 1129.2 1.143 1.181 .725 7.63E+04 .825 1023.5 1098.9 8.47E+04 1.181 1.244 1033.4 . 761 6.96E+04 1117.1 .864 7.79E+04 1.244

1.283

1.321

INEL POST-CHE EXPERIMENT NO. 237

.782

.803

1031.3

1078.8

7.15E+04

6.88E+04

INEL POST-CHE EXPERIMENT NO. 237

```
POINT SERIAL NO. 1237.101 (TIME= 779.50 SEC)
                                                                        POINT SERIAL NO. 1237.111 (TIME= 795.50 SEC)
                                                                         (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                                                                        LOOP PRESSURE (PE-3)
                                  15.95 MPA
                                                                                                            15.96 MPA
                                                                        FCV TEMPERATURE (TE-FCV-1T)
FCV TEMPERATURE (TE-FCV-1T)
                                  532.6 K
                                                                                                           532.3 K
                              1.131E+06 J/KG
                                                                        LHP INLET ENTHALPY
                                                                                                       1.130E+06 J/KG
LHP INLET ENTHALPY
                                                                        TEST SECTION:
TEST SECTION:
     PRESSURE
                                  3.50 MPA
                                                                              PRESSURE
                                                                                                            3.49 MPA
     SAT TEMP
                                 515.62 K
                                                                              SAT TEMP
                                                                                                          515.56 K
     MASS FLUX
                                  18.86 KG/SEC-M**2
                                                                             MASS FLUX
                                                                                                           18.79 KG/SEC-M**2
     INLET QUALITY
                                                                              INLET QUALITY
                                                                                                           .046
                                  .047
                              1.131E+06 J/KG
                                                                              INLET ENTHALPY
                                                                                                       1.130E+06 J/KG
     :NLET ENTHALPY
QUENCH FRONT:
                                                                        QUENCH FRONT:
     ELEVATION
                                    .999 M
                                                                             ELEVATION
                                                                                                            1.013 M
     VELOCITY
                                  .0009 M/SEC
                                                                             VELOCITY
                                                                                                            .0009 M/SEC
                                                                             QUALITY
                                                                                                            .611
     QUALITY
                                   .605
                                                                        NET LHP POWER TO FLUID
NET LHP POWER TO FLUID
                                    0.0 W
                                                                                                             0.0 W
                                                                        VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         (INFERRED VAPOR TEMP)
(INFERRED VAPOR TEMP)
                                                                        ELEVATION
                                                                                     DZQF
                                                                                               TV
                                                                                                              XA
ELEVATION
            DZQF
                      TV
                                     XA
                                                                                      (M)
                                                                                               (K)
 (M)
             (H)
                      (K)
                                                                          (M)
                                                                          1.232
                                                                                      .219
                                                                                           620.0 .741 .633
1,232
             .233
                     650.0
                             .749 .619
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                         WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                                                                       TEMP
                                                                                                            HEAT FLUX
                                                                                                                           HEAT LOSS
                                   HEAT FLUX
                                                  HEAT LOSS
                                                                         ELEVATION
                                                                                                  XE
ELEVATION
              TEMP
                         XE
                                                                                                             W/M##2
                                                                                                                            W/M##2
                                     W/M##2
                                                   W/M**2
                                                                           (M)
                                                                                        (K)
  (M)
               (K)
                                                                           .013
                                                                                       523.8
                                                                                                  .053
                                                                                                             7.18E+04
              523.8
                         .054
                                    7.17E+04
  _013
                         .075
              524.6
                                    7.18E+04
                                                                           .051
                                                                                       524.7
                                                                                                  .074
                                                                                                             7.17E+04
  .051
                                                                                       523.2
                                                                                                  .081
                                                                                                             7.18E+04
  .063
              523.2
                         .082
                                    7.17E+04
                                                                           .063
                                                                                                  .095
                                                                                       523.9
              523.9
                                                                           .089
                                                                                                             7.18E+04
  .089
                         .096
                                    7-18E+04
                                                                          . 114
                                                                                                  .109
                         .110
                                    7.18E+04
                                                                                       522.9
                                                                                                             7.17E+04
              522.9
  .114
                         . 124
                                                                           . 140
                                                                                       523.8
                                                                                                  . 124
                                                                                                             7.18E+04
              523.8
                                    7.18E+04
  . 140
                         .138
  .165
              522.1
                                    7.18E+04
                                                                           . 165
                                                                                       522.0
                                                                                                  .138
                                                                                                             7.18E+04
  .317
                                                                                                             7.18E+04
                         .223
                                                                           .317
                                                                                       523.8
              523.8
                                    7.18E+04
                                                                                                  .222
                                                                           . 394
                                                                                                  .264
                                    7.18E+04
                                                                                       523.7
                                                                                                             7.17E+04
                         . 265
  . 394
              523.8
                         .307
                                   7.17E+04
                                                                                                  .306
                                                                           .470
                                                                                       523.5
                                                                                                             7.17E+04
              523.6
  .470
                         .349
                                                                                                             7.18E+04
                                    7.17E+04
                                                                           .546
                                                                                       523.9
                                                                                                  .349
  .546
              524.0
                                                                                       522.9
                                                                                                             7.18E+04
                          .392
                                                                           .622
                                                                                                  . 391
  .622
              522.9
                                    7.17E+04
                                                                           .698
                                                                                       521.9
                                                                                                  .433
                                                                                                             7.18E+04
                                    7.18E+04
  .698
              522.0
                         .434
                                                                           .775
                                                                                       525.2
                                                                                                  .475
                                                                                                             7.19E+04
              525.7
                                    7.20E+04
  .775
                          .476
                                    7.22E+04
                                                                           .851
                                                                                       527.7
                                                                                                   .518
                                                                                                             7.22E+04
              528.6
                          .518
  .851
                                                                                       542.5
                                                                                                             7.19E+04
  .927
              542.9
                          .561
                                    7.33E+04
                                                                           .927
                                                                                                  .560
                                                                                       658.3
                                                                                                   .606
                                                                                                             8.27E+04
 1,003
              773.9
                          .607
                                    8.40E+04
                                                                          1.003
                          .655
                                    7.98E+04
                                                                          1.079
                                                                                       941.3
                                                                                                   .652
                                                                                                             7.57E+04
              949.1
 1.079
              992.3
                          .695
                                    8.13E+04
                                                                          1.143
                                                                                       982.3
                                                                                                  .689
                                                                                                             7.61E+04
 1.143
 1.181
              993.5
                          .719
                                    7.93E+04
                                                                          1.181
                                                                                       985.3
                                                                                                  .712
                                                                                                             7.59E+04
                                                                                      1008.7
                                                                                                             6.99E+04
                         . 756
                                    7.27E+04
                                                                          1.244
                                                                                                  .747
 1.244
              1015.1
                                                                                                             7.37E+04
             1021.6
                         .777
                                    7.48E+04
                                                                          1.283
                                                                                      1019.0
                                                                                                  .769
 1.283
             1082.0
                         .799
                                    7.43E+04
                                                                          1.321
                                                                                      1079.5
                                                                                                  .790
                                                                                                             7.38E+04
```

POINT SERIAL NO. 1237.121 (INFERRED VAPOR TEMP)	(TIME= 862	.50 SEC)
LOOP PRESSURE(PE-3)	15.97	MPA
FCV TEMPERATURE (TE-FCV-1T)	532.6	K
LHP INLET ENTHALPY TEST SECTION:	1.131E+06	
PRESSURE	3.49	MPA
SAT TEMP	515.57	
MASS FLUX	18,82	KG/SEC-M**2
INLET QUALITY	.047	
INLET ENTHALPY	1.1315+06	J/KG
QUENCH FRONT:		
ELEVATION	1,070	м
VELOCITY		M/SEC
QUALITY	.522	
NET LHP POWER TO FLUID	0.0	

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF XE XA (M) (14) (K)

1.232 . 162 600.0 .617 .541

WALL TE	MPERATURE MEASU	REMENT LOC	ATION INFORMAT	ION
ELEVALI	ON TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	W/M##2
.013	523.2	.052	5.67E+04	
.051	523.8	.069	5.67E+04	
.063	522.2	.075	5.671+04	
.089	523.0	.086	5.67E+04	
. 114	522.1	.097	5.67E+04	
. 140	522.8	.108	5.67E+04	
. 165	521.0	.119	5.67E+04	
.317	522.8	. 186	5.66E+04	
. 394	522.7	.220	5.66E+04	
.479	522.6	.253	5.67E+04	
.546	523.1	.286	5.67E+04	
.622	521.9	. 320	5.67E+04	
.698	521.2	. 353	5.67E+04	
.775	523.3	. 387	5.68E+04	
.851	524.9	.420	5.69E+04	
.927	531.0	. 454	5.74E+04	
1.003	535.9	. 488	5.88E+04	
1.079	860.4	.527	7.34E+04	
1.143	919.7	. 565	7.96E+04	
1.181	934.6	.588	7.61E+04	
1.244	959.2	.624	7.29E+04	
1,283	991.6	.645	6.71E+04	
1.321	1055.3	.664	6.51E+04	

	INEL POS	T-CHF E	PERIME	NT NO	. 237	
POINT SERIA	NO. 12	37.130	(TIME	= 889	.50 SEC)	
LOOP PRESSU	RE(PE-3)			15.96		
FCV TEMPERA	TURE (TE-F	CV-11)		532.1	K	
LHP INIET E	NTHALPY		1.12	9E+06	J/KG	
TEST SECTIO	N:					
PRESSU	IRE			3.50	MPA	
SAT TE	MP		- 5	15.62	K	
MASS F				18.78	KG/SEC-	M**2
INLET	QUALITY			.045		
INLET	QUALITY ENTHALPY		1,12	9E+06	J/KG	
QUENCH FROM	IT:					
ELEVAT				1.093	M	
VELOCI	IY			.0009	M/SEC	
QUAL 11	Y			.533		
NET LHS POP		0.11		6.0		
VAPOR TEMPE ELEVATION (M)	DZQF	ASUREMEN IV (K)	T LOCA	TION	INFORMAT	ION
1.232	.139	538.0	.608	.583		
WALL TEMPER	ATURE MEA	SUREMENT	LOCAT	ION II	NEORMATI	ON
ELEVATION	TEMP	XE				HEAT LOSS
(M)	(K)			W/M	**2	W/M**2
.013	523.1	.05	1	5,66	E+04	
051	523.6	.06	8	5.67	E+04	
.063	522.2	.07	3	5.67	E+04	
.089	522.9	.08	14	5.67	E+04	
.114	522.1	.09	6	5.67	E+04	
	F 000 0			E 6 70		

. 107

.118

. 185

.218

.252

.285

.319

.352

.420

.453

.487 .525

.560

.581

.615

.634 .653 5.67E+04

5.67E+04

5.67E+04

5.671+04

5.67E+04

5.67E+04 5.66E+04 5.67E+04

5.67E+04

5.68E+04

5.72E+04 5.75E+04

7.17E+04

7.06E+04

6.83E+04

6.92E+04

6.37E+04

6.20E+04

522.8

521.0

522.7

522.7

522.5

522.9

521.8

521.0 522.9

524.3

529.1

531.4

706.9

869.4

892.8

914.3 973.5

.140 . 165

.317 . 394

.470

.546

.622

.698

.775 .851

.927

1.003

1.079

1.143 1.181

1.244

1.283

POINT SERIAL NO. 1237.140 (TIME= 925.50 SEC) POINT SERIAL NO. 1237.150 (TIME= 949.50 SEC) LOOP PRESSURE(PE-3) 15.95 MPA LOOP PRESSURE(PE-3) 15.97 MPA FCV TEMPERATURE (TE-FCV-11) 532.6 K FCV TEMPERATURE (TE-FCV-1T) 532.8 K LHP INLET ENTHALPY 1.1315+06 J/KG LHP INLEJ ENTHALPY 1.132E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.50 MPA PRESSURE 3.49 MPA SAT TEMP 515.62 K SAT TEMP 515.56 K MASS FLUX 18.68 KG/SEC-M**2 MASS FLUX 18.71 KG/SEC-M**2 INLET QUALITY .047 INLET QUALITY .047 INLET ENTHALPY 1.131E+06 J/KG INLET ENTHALPY 1.132E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION 1.125 M ELEVATION 1.150 M VELOCITY .0010 M/SEC VELOCITY .0010 M/SEC CUALITY .552 QUALITY .561 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION DZQF TV XE XA ELEVATION DZQF TV XE XA (M) (M) (K) (M) (M) (K) 1.232 . 106 524.2 .609 .601 1,232 .002 519.0 .609 .605 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M##2 W/M##2 (M) (K) W/M**2 W/M##2 .013 523.0 .052 5.66E+04 .053 .013 523.0 5.66E+04 523.6 .051 .069 5.66E+04 .051 523.5 .070 5.668+04 .063 522.2 .075 5.67E+04 .063 522.2 .075 5.66E+04 .089 522.8 .086 5.67E+04 .089 522.8 .087 5.66E+04 .114 522.1 .097 5.67E+04 .114 522.1 .098 5.66E+04 .140 522.8 . 108 5.67E+04 . 140 .109 522.7 5.66E+04 .165 .120 521.0 5.67E+04 . 165 521.0 .120 5.66E+04 . 187 .317 522.6 5.67E+04 .317 522.5 . 187 5.66E+04 . 394 522.6 .221 5.66E+04 . 394 522.5 .221 5.65E+04 .470 522.4 . 254 5.66E+04 .470 522.3 .255 5.66E+04 .546 522.8 .288 5.66E+04 . 546 522.7 .288 5.66E+04 .622 521.8 .322 5.66E+04 .322 .622 521.8 5.66E+04 .698 . 355 520.9 5.66E+04 .698 520.8 . 355 5.66E+04 .775 522.5 .389 5.67E+04 .775 522.4 .389 5.66E+04 .851 523.7 .423 5.67E+04 .851 523.5 .422 5.66E+04 .927 527.3 .456 5.70E+04 .927 526.5 . 456 5.68E+04 1.003 528.1 .490 5.73E+04 1.003 526.4 .490 5.70E+04 1.079 626.5 .527 6.45E+04 1.079 611.3 .525 6.06E+04 1.143 769.8 .562 7.70E+04 1.143 632.8 .558 7.20E+04 1.181 858.0 .582 6.38E+04 1.181 829.4 .579 7.27E+04 847.4 1.244 7.04E+04 .616 1.244 772.6 .618 8.36E+04 1.283 949.4 6.42E+04 .636 1.283 929.8 .640 6.51E+04 1.321 1022.5 .655 6.32E+04 1.321 1004.3 .659 6.46E+04

	INEL POST	-CHE EXPERT	MENT NO. 241			THEL POS	H-CH EAT	LIVIPILIA	1 110. 241	
POINT SERIA	AL NO. 124	1.011 (1)	ME= 42.50 SEC	-M**2	POINT SERIA	AL NO. 12	241.021	(TIME=	48.50 SEC)
(INTERRED)	IDE I DE = 21		15 Q6 MPA		LOOP PRESSI	JRE(PE-3)		1	5.98 MPA	
FOOR LEMBER	TUDE (IE - EC	V-111	533 7 K		FCV TEMPERA	TURE! TE-F	CV-11)	5	33.8 K	
THO THEFT	ENTHAL PY		137F+06 1/KG		LUP INLET !	NTHALPY		1,137	E+06 J/KG	
THE THEET I	MITTALL I		13/2 3/10		TEST SECTION	N:				
DDECE!	IN C		3 50 MPA		PRESSU	JRE			3.49 MPA	
CAL TI	MD		515 61 K		SAT TE	MP		51	5.59 K	
MACCI	CLUV		34 90 KG/SEC-	M##2	MASS I	LUX		3	4.99 KG/SEG	-M**2
INLET	OHAL LTV		050	Marie Company	INLET	QUALITY			.050	
INLET	CHIHALPY		137F+06 1/KG		INLET	ENTHALPY		1.137	E+06 J/16	
OHENCH FROM	W) -		1312-00 07110		QUENCH FROM	11:				
ELEVA	CLON		114 M		ELEVA	ION			. 168 M	
VELOC	ITV		0088 M/SEC		VELOCI	TY			0105 M/SEC	
01161.13	IV.		108		QUALIT	TY .			. 136	
NET THE POL	JER TO FILLI	0	0.0 W		NET LHP POV	VER TO FLU	IID		0.0 W	
HET EIN TO	ien io itoi			-M**2						
VAPOR TEMPE	ERATURE MEA	ASUREMENT LO	CATION INFORMA	TION	VAPOR TEMPE (INSERRED V	RATURE ME APOR TEMP	ASUREMENT	LOCAT	ION INFORMA	ATION
ELEVATION		TV XE	XA		ELEVATION	DZQF	TV	XE	XA	
(M)	(M)	(K)			(M)	(M)	(K)			
()	4									
1.232			2 .486		1.232			.690		
WALL TEMPER	RATURE MEAS	SUREMENT LOC	ATION INFORMAT	ION HEAT LOSS	WALL TEMPER	RATURE MEA	SUREMENT	LOCATI	ON INFORMAT	ION
FLEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS	ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)		W/M**2	W/M**2	(M)	(K)			M/W##5	M/M**2
.013	579 h	.055	1.01E+05		.013	571.6	.055		9.51E+04	
.051	579.4 603.8	.072	1.11E+05		.051	593.5	.071		1.04E+05	
,063	557.0	,078	1.01E+05		.063	551.1	.076		1.04E+05 9.19F+04	
.069	557.0 625.6	.091	1.52E+05		.089	577.7	.088		1.29E+05 1.42E+05	
.114	715.0	.108	1.74E+05		. 114	595.1	. 102		1.42E+05	
. 140	816.5	. 128	1.93E+05		. 140	576.9	. 118		1.568+05	
. 165	725.9	.147	1.68E+05		. 165	688.3	. 134		1.52E+05	
.317	874.0	.247	1.50E+05		. 317	846.5	.232		1.59E+05	
. 394	912.5	.295	1.53E+05		. 394	884.9	.281		1.49E+05	
.470	947.7	. 343	1,46E+05		. 470	922.2			1.44E+05	
.546	964.3	. 388	1.37E+05		.546	942.1	. 372		1.36E+05	
.622	998.7	.431	1.37E+05		.622	976.8			1.35E+05	
.698	1022.6	.472	1.24E+05		.698	1004.1	. 456		1.26E+05	
.775	1034.6	.510	1.15E+05		.775	1019.3			1.17E+05	
.851	1046.4	.547	1.15E+05		.851	1032.2			1.14E+05	
.927	1074.7	.583	1.13E+05		.927	1060.5	.567		1.14E+05	
1.003	1087.9	.618	1.12E+05		1.003	1073.3	. 603		1.12E+05	
1.079	1020.5	.650	8.73E+04		1.079	1014.2	.635		9.08E+04	The second
1.143	1053.4	.674	9.34E+04	2.10E+03	1.143	1043.9	.660		9.67E+04	1.36E+03
1.181	1012.0	.688	8.41E+04	2.10E+03	1.181	1004.6	. 674		8.71E+04	4.01E+03
1.245	1048.1	.710	8.34E+04		1.245	1039.1	.698		9.02E+04	
1.283	1007.6	.724	9.09E+04		7.1 5.36 (6.	997.7	.713		9.02E+04 9.60E+04	
1.321	1026.8	.738	9.11E+04		1.321	1018.1	.728		9.52E+04	
24.9696.5										

INEL POST-CHE EXPERIMENT NO. 241

INEL POST-CHE EXPERIMENT NO. 241

POINT SERIAL NO. 1241.031 (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) FCV TEMPERATURE(IE-FCV-IT) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAT TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	(TIME= 53.50 SEC) 15.92 MPA 533.9 K 1.138E+06 J/KG 3.49 MPA 515.60 K 35.00 KG/SEC-M**2 .050 1.138E+06 J/KG .220 M .0105 M/SEC .156	POINT SERIAL NO. 1241.041 (INFERRED YAPOR TEMP) LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) LHP INLET ENTHALPY TEST SECTION: PRESSURE SAI TEMP MASS FLUX INLET QUALITY INLET ENTHALPY QUENCH FRONT: ELEVATION VELOCITY QUALITY NET LHP POWER TO FLUID	15.93 MPA 534.0 K 1.138E+06 J/KG 3.50 MPA 515.62 K 35.14 KG/SEC-M**2 .051 1.138E+06 J/KG
NET LIP POWER TO FLUID	0.0 W	NET LHP POWER TO FLUID	0.0 W
	NT LOCATION INFORMATION XE XA	VAPOR TEMPERATURE MEASUREMEN (INFERRED VAPOR TEMP) ELEVATION DZQF TV (M) (M) (K)	T LOCATION INFORMATION
1.232 1.012 720.0	.668 .513	1.232 .925 670.0	.641 .518
.013 562.4 .0	T LOCATION INFORMATION E HEAT FLUX HEAT LOSS W/M**2 W/M**2 055 8.87E+04 169 9.46E+04		5 8 275+04
.063 544.4 .6 .089 560.6 .6 .114 555.2 .6 .140 578.6 .1	9.46E+04 174 8.36E+04 184 9.75E+04 1.11E+05 08 1.38E+05 22 1.36E+05	.051 567.1 .06 .063 538.2 .07 .089 548.3 .08 .114 541.2 .09 .140 534.8 .09 .165 548.1 .10	8 8.75E+04 3 7.79E+04 1 8.28E+04 0 8.10E+04 8 8.49E+04 9 1.12E+05
.394 853.6 .470 892.6 .546 916.2 .622 951.2 .698 981.8	8.87E+04 169 9.46E+04 174 8.36E+04 184 9.75E+04 195 1.11E+05 108 1.38E+05 122 1.36E+05 16 1.60E+05 165 1.51E+05 11 1.38E+05 13 1.32E+05 13 1.32E+05 14 1.16E+05 10 1.13E+05 11 1.13E+05 11 1.13E+05 11 1.13E+05 11 1.11E+05	.317 684.0 .19 .394 775.8 .24 .470 852.4 .23 .546 880.1 .32 .546 914.6 .36 .698 949.3 .40 .775 974.0 .44	8 1.23E+05
.851 1015.2 .5 .927 1043.9 .5 1.003 1057.3 .5 1.079 1006.6 .6	14 9 17F+04	1 070 99h 5 58	2 1.12E+05 7 1.13E+05 3 1.12E+05
1.181 996.2 .6 1.245 1028.8 .6 1.283 987.6 .6	8.76E+04 4.72E+03	1,143 1015.9 .611 1,181 982.8 .62: 1,245 10112.1 .651 1,283 972.0 .666 1,321 960.4 .688	9.86E+04 2.54E+03 5.86E+04 5.23E+03 9.70E+04 9.95E+04 1.97E+05

1.321

INEL POST-CHE EXPERIMENT NO. 241

· POINT SERIAL NO. 1241.061 (TIME= 73.50 SEC) POINT SERIAL NO. 1241.051 (TIME= 65.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) 15.96 MPA LOOP PRESSURE (PE-3) 15.96 MPA LOOP PRESSURE (PE-3) FCV TEMPERATURE (TE-FCV-1T) 533.9 K FCV TEMPERATURE (TE-FCV-1T) 534.0 K 1.138E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY 1.138E+06 J/KG TEST SECTION: TEST SECTION: 3.50 MPA PRESSURE 3.50 MPA PRESSURE 515.65 K SAT TEMP 515.64 K SAT TEMP 35.02 KG/SEC-M**2 MASS FLUX 35.13 KG/SEC-M**2 MASS FLUX INLET QUALITY .050 INLET QUALITY .051 INLET ENTHALPY 1.138E+06 J/KG 1.138E+06 J/KG INLET ENTHALPY QUENCH FRONT: QUENCH FRONT: .469 M ELEVATION .390 M ELEVATION VELOCITY .0088 M/SEC .0112 M/SEC VELOCITY QUALITY .230 .208 QUALITY NET LHP POWER TO FLUID 0.0 W NET THE POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF IV XA TV XE ELEVATION DZQF (M) (M) (K) (M) (M) (K) 1,232 .763 580.0 .562 .505 .495 1.232 .842 630.0 .586 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS HEAT FLUX HEAT FLUX HEAT LOSS ELEVATION TEMP XE ELEVATION TEMP XE W/M##2 W/M##2 W/M**2 W/M**2 (M) (K) (K) (M) .054 7.74E+04 .055 .013 540.4 7.87E+04 .013 546.0 8.02E+04 .051 548.5 .061 557.5 .067 8.24E+04 .051 7.51E+04 .063 532.9 .071 .072 7.46E+04 535.6 .063 .079 7.64E+04 7.71E+04 .089 538.3 .080 .089 542.9 534.0 .087 7.54E+04 7.57E+04 . 114 .088 537.3 . 114 .095 7.44E+04 . 140 528.0 530.5 .096 7.49E+04 . 140 7.63E+04 . 165 . 165 531.4 .103 536.6 . 104 7.87E+04 . 154 8.56E+04 553.7 . 167 1.22E+05 .317 .317 611.3 . 188 1.30E+05 587.7 .210 1.50E+05 . 394 699.0 . 394 .230 1.37[+05 716.7 .255 1.37E+65 .470 802.7 .470 .546 1.31E+05 .272 810.5 849.0 .295 1.13E+05 .546 1.10E+05 .310 848.8 1.15E+05 .622 882.9 . 331 .622 . 345 1.09E+05 .698 886.9 1.14E+05 919.9 .367 .698 .379 918.8 1.08E+05 .402 1.10E+05 .775 948.4 .775 .413 1.03E+05 942.1 1.05E+05 .851 967.8 . 436 .851 1.05E+05 .927 968.6 . 446 995.4 .469 1.07E+05 .927 1.02E+05 1.003 988.7 .478 .502 1.03E+05 1,003 1011.9 .509 9.04E+04 967.9 .533 9.16E+04 1.079 1.079 982.0 3.07E+03 .533 980.6 9.18E+04 999.0 .557 9.31E+04 3.49E+03 1.143 1.143 4.70E+G3 8.41E+04 955.1 .547 1,181 969.1 .571 8.48E+04. 6.19E+03 1.181 9.37E+04 .570 1.244 974.1 994.6 .595 9.29E+04 1.245 2.00E+05 .593 1.283 930.4 1.22E+05 1,283 954.2 .612 2.28E+05 721.8 .627 1.321 919.9 .639 2.23E+05

INEL POST-CHE EXPERIMENT NO. 241

INEL POST-CHE EXPERIMENT NO. 241

INEL POST-CHE EXPERIMENT NO. 242 POINT SERIAL NO. 1241.071 (TIME= 78.50 SEC) POINT SERIAL NO. 1242.011 (TIME= 38.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 15.95 MPA LOOP PRESSURE (PE-3) 16.02 MPA FCV TEMPERATURE (TE-FCV-11) 533.8 K FCV TEMPERATURE (TE-FCV-1T) 550.2 K LHP INLET ENTHALPY 1.137E+06 J/KG LHP INLET ENTHALPY 1.218E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 3.50 MPA PRESSURE 7.01 MPA SAT TEMP 515.64 K SAT TEMP 559.05 K MASS FLUX 35.04 KG/SEC-M**2 MASS FLUX 40.33 KG/SEC-M**2 INLET QUALITY .050 INLET QUALITY -.034 INLET ENTHALPY 1.137E+06 J/KG INLET ENTHALPY 1.218E+06 J/KG QUENCH FRONT: QUENCH FRONT: ELEVATION .513 M ELEVATION .114 M VELOCITY .0084 M/SEC VELOCITY .0127 M/SEC QUALITY .086 .239 QUALITY NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) ELEVATION DZQF ELEVATION TV XA DZQF XA (M) (M) (K) (M) (M) (K) 1.232 .719 540.0 .550 .526 1.232 1,118 930.0 .834 .499 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS W/M##2 (M) (K) W/M##2 W/M##2 W/M##2 (M) (K) .013 537.7 .054 7.67E+04 -.025 .013 654.6 1.66E+05 .051 544.2 .066 7.88E+04 .051 693.4 .006 2.19E+05 .063 531.5 .070 7.49E+04 .020 2.88E+05 .063 626.0 .089 .078 7.57E+04 536.2 .089 688.6 .051 3.07E+05 7.52E+04 . 114 532.4 .086 3.44E+05 .114 786.8 .086 . 140 527.0 .094 7.42E+04 3.43E+05 . 140 860.0 . 123 . 165 .102 . 154 529.5 7.55E+04 . 165 860.7 2.38E+05 . 151 .317 7.99E+04 .308 547.8 .317 959.2 2.44E+05 . 394 .179 9.52E+04 549.4 . 394 1011.4 .382 2.22E+05 .470 .215 1.32E+05 648.2 .470 1057.4 .451 2.07E+05 .546 797.7 .258 1.42E+05 .546 1082.5 .513 1.83E+05 .622 829.6 .298 1.14E+05 1.66E+05 .622 1113.7 .569 .617 .698 867.8 . 334 1.08E+05 .698 1120.1 1.38E+05 1.07E+05 .775 900.6 . 368 .775 1129.0 .659 1.22E+05 .851 926.7 .401 1.02E+05 1.07E+05 .851 1132.8 .696 .927 952.3 .433 1.05E+05 1155.2 1.05E+05 .927 .730 1.003 974.5 . 466 1.01E+05 1159.2 1.05E+05 1.003 . 763 1.079 959.5 .496 9.00E+04 1.079 1040.3 .792 7.43E+04 3.92E+02 1.143 969.8 .520 9.09E+04 3.02E+03 1.143 1081.0 .811 7.47E+04 1.181 947.3 .533 8.36E+04 4.45E+03 1.181 1034.7 6.64E+04 8.32E+03 .823 1.41E+05 .840 1.244 955.4 .563 1.245 1030.2 6.60E+04 775.2 2.16E+05 7.31E+04 1.283 .591 1,283 997.4 .852 1.321 645.1 .621 1.62E+05 1.321 1014.0 .863 6.79E+04

1.003

1.079

1.143

1.181

1.244

1.283

1.321

1146.9

1043.7

1083.1

1037.3

1034.8

1001.2

1020.7

.806

. 844

.871

.887

.911 .926

.941

INEL POST-CHE EXPERIMENT NO. 242

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POINT SERIAL NO. 1242.021 (TIME= 42.50 SEC)
(INFERRED VAPOR TEMP)
LOOP PRESSURE (PE-3)
                                   16.01 MPA
FCV TEMPERATURE (TE-FCV-1T)
                                  550.2 K
LHP INLET ENTHALPY
                               1.218E+06 J/KG
TEST SECTION:
     PRESSURE
                                    7.01 MPA
     SAT TEMP
                                  559.04 K
                                  40.52 KG/SEC-M**2
     MASS FLUX
     INLET QUALITY
                                  -.033
                               1.218E+06 J/KG
     INLET ENTHALPY
QUENCH FRONT:
                                    .167 M
     ELEVATION
                                   .0145 M/SEC
     VELOCITY
     QUALITY
                                   . 114
NET LHP POWER TO FLUID
                                    0.0 W
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
ELEVATION
            DZQF
                              XE
 (M)
             (M)
                      (K)
1.232
            1,065
                     905.0
                            .903 .553
WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION
                                    HEAT FLUX
                                                  HEAT LOSS
                         XE
ELEVATION
              TEMP
                                    W/M##2
                                                   W/M##2
               (K)
  (M)
                        -.026
                                    1.34E+05
              627.2
  .013
  .051
              649.0
                        -.004
                                    1.48E+05
                                    1.38E+05
                         .004
  .063
              602.1
                         .023
                                    2.21E+05
              635.4
  .089
              613.5
                         .051
                                    3.06E+05
  .114
  . 140
              634.7
                         .083
                                    3.07E+05
  .165
              715.7
                         . 112
                                    2.40E+05
                         .260
                                    2.23E+05
              897.4
  .317
              955.0
                         . 331
                                    2.24E+05
  . 394
             1003.8
                         .403
                                    2.28E+05
  .470
                                    2.19E+05
  .546
             1036.5
                         .475
                         .543
                                    2.13E+05
  .622
             1073.0
             1092.0
                         .606
                                    1.83E+05
  .698
  .775
             1107.9
                         .662
                                    1.67E+05
  .851
             1118.2
                         .713
                                    1.51E+05
                                   1.46E+05
  .927
             1162.4
                         .760
```

1.43E+05

9.84E+04

1.04E+05 9.34E+04

8.75E+04

9.84E+04

9.08E+04

5.70E+03

	INEL POS	T-CHF EXP	ERIME	NT NO.	242	
POINT SERIE			(TIME	= 46.	50 SEC)
(INFERRED		1				
LOOP PRESSI				16.00		
FCV TEMPERA		CV-11)		550.3		
LHP INLET			1.21	8E+06	J/KG	
TEST SECTIO						
PRESSI				7.01		
SAT II				59.06		discount of the last of the la
MASS	and the same of th				KG/SEC	-W**5
	QUALITY			033	L GARAGE	
	ENTHALPY		1.21	8E+06	J/KG	
QUENCH FROM				-		
ELEVA				.225		
VELOC				.0145	M/SEC	
QUALI		diam'r		. 134		
NET LHP PO	WER TO FLU	1 D		0.0	W	
VAPOR TEMPI			LOCA	TION I	NEORMA	TION
(INFERRED)						
ELEVATION			XE	XA		
(M)	(M)	(K)				
1.232	1.007	850.0	.831	.538		
WALL TEMPER	RATURE MEA	SUREMENT	LOCAT	ION IN	FORMAT	ION
ELEVATION	TEMP	XE		HEAT	FLUX	HEAT LOSS
(M)	(K)			W/M*	*2	M/W**5
.013	616.5	027		1.246	+05	
.051	636.5	006		1.37E	1000	
.063	595.7	.001		1.30E	70.00	
.089	625.1			1.84E		
, 114	635.8	.039		2.14E		
.140	651.9	.061		2.15E		
. 165	601.2	.082		1.84E		
.317	845.8	,213		2.29E		
394	888.7	.285		2.27E		
.470	957.4	. 354		2.12E		
.546	992.1			1.97E		
.622	1028.8			1.93E		
.698	1953.8	1		1.73E		
.775	1073.6	,591		1.63E		
.851	1089.5			1.49E		
.927	1115.8	.687		1.44E		
1.003	1123.0	.732		1.40E		
1.079	1034.7	.770		1.04E		
1.143	1072.1	.798		1.08E		
1.181	1029.1	.814		9.62E		6.00E+03
1.244	1031.0			9.068		3.001.03
1.283	994.7	. 854		9.95E		
1,203	1015 1	060		0 425		

.869

9.43E+04

1015.4

1.321

1.321

1011.2

.816

INEL POST-CHE EXPERIMENT NO. 242

POINT SERIAL NO. 1242.041 (TIME= 51.50 SEC) POINT SERIAL NO. 1242.051 (TIME= 54.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) 15.97 MPA LOOP PRESSURE (PE-3) LOOP PRESSURE(PE-3) 16.05 MPA FCV TEMPERATURE (TE-FCV-1T) 550.3 K FCV TEMPERATURE (TE-FCV-1T) 550.3 K LHP INLET ENTHALPY 1.218E+06 J/KG LHP INLET ENTHALPY 1.218E+06 J/KG TEST SECTION: TEST SECTION: PRESSURE 7.01 MPA PRESSURE 7.01 MPA SAT TEMP 559.06 K SAT TEMP 559.06 K MASS FLUX MASS FLUX 41.13 KG/SEC-M**2 41.21 KG/SEC-M**2 INLET QUALITY INLET QUALITY -.033 -.033 INLET ENTHALPY 1.218E+06 J/KG INLET ENTHALPY 1.218E+06 J/KG QUENCH FRONT: QUENCH FRONT: .322 M ELEVATION .388 M ELEVATION VELOCITY .0208 M/SEC VELOCITY .0234 M/SEC QUALITY QUALITY . 158 . 186 NET LHP POWER TO FLUID 0.0 W NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) DZQF TV XA ELEVATION DZQF TV ELEVATION (M) (K) (M) (M) (K) (M) 1.232 . 844 1.232 .910 805.0 .773 .525 775.0 .745 .523 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT FLUX HEAT LOSS ELEVATION TEMP XE HEAT FLUX HEAT LOSS ELEVATION TEMP XE W/M##2 W/M##2 W/M**2 (K) W/M##2 (M) (K) (M) 595.8 -.028 .013 601.5 -.027 1.09E+05 .013 1.05E+05 1.14E+05 .051 610.4 -.011 1.09E+05 .051 617.5 -.010 1.02E+05 .063 580.0 -.005 9.90E+04 .063 583.1 -.004 .089 .007 596.1 1.12E+05 .089 590.2 .005 1.05E+05 . 114 1.03E+05 .114 1.13E+05 583.0 .016 588.5 .019 1.05E+05 1.50E+05 .140 575.7 .027 . 140 585.2 .033 . 165 1.475+05 .039 1.26E+05 .048 581.6 . 165 602.5 .317 1.76E+05 1.93E+05 633.5 . 134 .317 740.8 . 155 . 190 1.87E+05 . 394 2.04E+05 . 394 843.9 .217 734.3 2.10E+05 2.21E+05 .470 866.9 . 252 .284 .470 879.7 .348 . 315 1.89E+05 .546 902.6 1.93E+05 .546 938.1 .408 1.90E+05 .622 945.1 . 374 1.83E+05 .622 975.3 1.77E+05 .698 982.8 .430 1.75E+05 .698 1009.4 .465 .775 1.681+05 1010.4 . 484 1.70E+05 .775 1034.3 .520 1.57E+05 .851 1035.8 .536 1.61E+05 .851 1056.6 .571 1.58E+05 .927 1065.7 .586 .927 1085.1 .619 1.54E+05 1.003 1077.7 .634 1.52E+05 1.47E+05 1095.0 .667 1,003 1.18E+05 .708 1.16E+05 1.079 1018.1 .676 1.079 1025.4 .738 7.14E+02 1.143 1051.2 . 708 1.24E+05 4.27E+02 1.19E+05 1.143 1060.1 .756 1.181 1013.0 .726 1.10E+05 6.35E+03 1.05E+05 7.45E+03 1.181 1020.0 . 755 .783 1.244 1020.0 1.07E+05 1.244 1025.4 1.01E+05 1.283 982.4 .772 1.14E+05 1.08E+05 1.283 987.9 .799 1.05E+05 1.321 1007.2 . 789 1.08E+05

INEL POST-CHE EXPERIMENT NO. 242

INEL POST-CHE EXPERIMENT NO. 242

16.04 MPA

7.01 MPA

41.48 KG/SEC-M**2

550.3 K

1.218E+06 J/KG

559.07 K

-.033

1.218E+06 J/KG

.222

468 M

0.0 W

.0169 M/SEC

POINT SERIAL NO. 1242.061 (TIME= 58.50 SEC)

VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION

(INFERRED VAPOR TEMP)

tOOP PRESSURE(PE-3)
FCY TEMPERATURE(TE-FCV-1T)

LHP INLET ENTHALPY

PRESSURE

SAT TEMP

MASS FLUX

ELEVATION

NET LIP POWER TO FLUID

(INFERRED VAPOR TEMP)

VELOCITY

QUALITY

INLET QUALITY

INLET ENTHALPY

TEST SECTION:

QUENCH FRONT:

INEL POST-CHE EXPERIMENT NO. 242 POINT SERIAL NO. 1242.071 (TIME= 63.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE(PE-3) 16.00 MPA FCV TEMPERATURE (TE-FCV-1T) 550.3 K 1.218E+06 J/KG LHP INLET ENTHALPY TEST SECTION: 7.01 MPA PRESSURE SAT TEMP 559.08 K 41.66 KG/SEC-M**2 MASS FLUX INLET QUALITY -.033 INLET ENTHALPY 1.218E+06 J/KG QUENCH FRONT: .542 M ELEVATION .0130 M/SEC VELOCITY .242 QUALITY NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION DZQF IV XE (M) (M) (K) 1.232 .690 660.0 .667 .542 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION ELEVATION TEMP XE HEAT FLUX HEAT LOSS (M) (K) W/M**2 W/M##2 .013 584.7 -.028 9.92E+04 -.012 .051 594.8 1.03[+05 .063 574.1 -.007 9.56E+04 .089 580.6 .003 9.74E+04 9.59E+04 . 114 575.5 .013 9.49E+04 . 140 568.7 .022 .032 9.66E+04 . 165 570.7 .317 600.5 .099 1.19E+05 . 394 . 140 1.46E+05 616.8 1.77E+05 .190 .470 698.9 779.5 .245 1.79E+05 .546 .300 842.2 1.75E+05 .622 909.5 .352 1.64E+05 .698 .775 1.61E+05 941.0 .403 1.59E+05 .851 972.2 .452 .502 1002.5 1.61E+05 .927 .551 1.57E+05 1.003 1019.6 1.079 990.7 .594 1.25E+05 1.143 1017.2 .628 1.32E+05 1.20E+05 5.31E+03 984.9 .647 1.181

.679

.698

.717

1.25E+05

1.26E+05

1.17E+05

1.244

1.283

1.321

991.8

956.1

987.6

ELEVATION (M)	DZQF (M)	TV (K)	XE	XA	
1.232	.764	725.0	.710	.528	
				ION INFORMAT	
ELEVATION	TEMP	XE		HEAT FLUX	HEAT LOSS
(M)	(K)			W/M**2	M/W##5
.013	590.1	02	8	1.02E+05	
.051	602.6	01	2	1.06E+05	
.063	576.9	00	6	9.71E+04	
.089	585.0	.00		1.00E+05	
. 114	578.7	.01	4	9.81E+04	
. 140	571.3	.02	4	9.76E+04	
. 165	574.8	.03	5	1.01E+05	
. 317	645.6	.11	6	1.60E+05	
. 394	618.5	. 16	7	1.69E+05	
.470	774.5	.22	14	1.94E+05	
.546	873.3	.28	3	1.92E+05	
.622	908.6	. 34	0	1.75E+05	
.698	948.7	. 39	4	1.69E+05	
.775	978.6	. 44	6	1.66E+05	
.851	1007.2	.49	7	1.60E+05	
.927	1037.9	. 54	7	1.61E+05	
1.003	1052.4	.59	6	1.55E+05	
1.079	1006.7	.63	9	1.22E+05	
1.143	1036.9	.67	1	1.29E+05	
1.181	1001.4	. 69	0	1.15E+05	5.97E+03
1.244	1009.6	.72	0	1.15E+05	
1.283	972.0	.73	9	1.21E+05	
1.321	999.5	.75	7	1.14E+05	

.851

.927

1.003

1.079

1.143

1.181

1.244

1.283

1.321

923.1

949.7

968.8

964.4

984.0

957.0

949.4

926.3

965.2

400

.449

.498

.542

.577

.597

.637

.662

.682

1.57E+05

1.62E+05

1.60E+05

1.31E+05

1.41E+05

1.28E+05

1.85E+05

1.36E+05

1.26E+05

INEL POST-CHF EXPERIMENT NO. 242

INEL POST-CHE EXPERIMENT NO. 243 POINT SERIAL NO. 1243.011 (TIME= 106.50 SEC) POINT SERIAL NO. 1242.081 (TIME= 70.50 SEC) (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 16.00 MPA LOOP PRESSURE (PE-3) 550.3 K FCV TEMPERATURE (TE-FCV-1T) FCV TEMPERATURE (TE-FCV-1T) 1.218E+06 J/KG LHP INLET ENTHALPY LHP INLET ENTHALPY 1.220E+06 J/KG TEST SECTION: TEST SECTION: 7.01 MPA PRESSURE PRESSURE SAT TEMP 559.05 K SAT TEMP 42.28 KG/SEC-M**2 MASS FLUX MASS FLUX INLET QUALITY INLET QUALITY -.033 INLET ENTHALPY INLET ENTHALPY 1.218E+06 J/KG 1.220E+06 J/KG QUENCH FRONT: QUENCII FRONT: ELEVATION .626 M ELEVATION .0111 M/SEC VELOCITY VELOCITY QUALITY .250 QUALITY NET LHP POWER TO FLUID NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) (INFERRED VAPOR TEMP) TV DZQF ELEVATION DZQF XA ELEVATION (M) (M) (K) (M) (M) (K) 1.232 1,232 .606 600.0 .621 .560 .540 675.0 .822 .653 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP ELEVATION TEMP XE HEAT FLUX XE W/M**2 W/M**2 (K) (M) (M) (K) 579.3 .013 570.1 -.023 -.028 9.70E+04 .013 .051 586.7 -.013 9.97E+04 .051 573.2 .002 571.4 -.008 9.47E+04 .063 568.0 .011 .063 571.0 .089 576.7 .001 9.55E+04 .089 .027 . 114 572.7 .011 9.47E+04 . 114 568.4 .044 . 140 566.8 .021 9.36E+04 . 140 566.7 .061 . 165 567.5 .030 9.48E+04 . 165 564.3 .078 .317 590.3 .089 9.94E+04 .317 575.2 . 180 . 120 . 394 587.2 1.03E+05 . 394 574.2 .230 .470 625.2 . 156 1.29E+05 .470 585.6 .282 .200 686.1 1.59E+05 .546 602.0 . 334 .546 .622 735.8 .248 1.57E+05 .622 611.6 .391 .299 796.2 .698 834.8 1.80E+05 .698 .452 .775 891.1 . 351 1.63E+05 .775 900.7 .512

4.51E+03

15.93 MPA

7.01 MPA

40.26 KG/SEC-M**2

550.7 K

559.05 K

.692 M

0.0 W

.446

.0040 M/SEC

HEAT FLUX

W/M##2

1.59E+05

1.59E+05

1.58E+05

1.58E+05

1.58E+05

1.58E+05

1.58E+05 1.59E+05

1.59E+05

1.62E+05

1.65E+05

1.88E+05

1.95E+05

1.78E+05

1.73E+05

1.69E+05

1.67E+05

1.55E+05

1.59E+05

1.45E+05

2.02E+05

2.33E+05

2.07E+05

939.5

979.1

995.4

1035.9

1010.0

993.9

918.2

769.7

1012.2

.568

.623

.677

.728

.770

.794

.840

.875

.910

.851

.927

1.003

1.079

1.143

1.181

1.245

1.283

1.321

HEAT LOSS

W/M##2

6.30E+03

2.86E+03

1.41E+04

-.032

INEL POST-CHE EXPERIMENT NO. 243

```
POINT SERIAL NO. 1243.021 (TIME= 129.50 SEC)
(INFERRED VAPOR TEMP)
                                 15.97 MPA
LOOP PRESSURE(PE-3)
FCV TEMPERATURE (TE-FCV-1T)
                                 550.7 K
LHP INLET ENTHALPY
                             1.220E+06 J/KG
TEST SECTION:
     PRESSURE
                                 7.01 MPA
    SAT TEMP
MASS FLUX
                                559.05 K
                                 40.16 KG/SEC-M**2
     INLET QUALITY
                                 -.032
     INLET ENTHALPY
                             1.220E+06 J/KG
QUENCH FRONT:
                                  .772 M
    ELEVATION
                                 .0031 M/SEC
     VELOCITY
                                  .498
    QUALITY
                                  0.0 W
NET LHP POWER TO FLUID
VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION
(INFERRED VAPOR TEMP)
                     TV
ELEVATION DZQF
                             XE XA
  (M)
             (M)
                     (K)
```

650.0 .817 .674 1.232 .460

ELEVATION	TEMP	XE	HEAT FLUX	HEAT LOSS
(M)	(K)		M/W**5	M/W**5
.013	567.7	023	1.58E+05	
. 051	570.1	.002	1.58E+05	
.063	566.5	.010	1.58E+05	
.089	569.1	.027	1.58E+05	
.114	566.8	. 044	1.58E+05	
. 140	566.0	.061	1.58E+05	
. 165	563.3	.078	1.58E+05	
.317	571.8	. 180	1.59E+05	
. 394	571.3	.231	1.59E+05	
.470	578.0	.282	1.60E+05	
.546	588.7	. 333	1.62E+05	
.622	587.7	. 385	1.61E+05	
.698	619.5	.439	1.77E+05	
.775	771.1	.500	2.00E+05	
.851	915.7	.559	1.69E+05	
.927	959.8	.613	1.68E+05	
1.003	996.3	.667	1.67E+05	
1,079	989.3	.719	1.57E+05	5.18E+03
1.143	1028.5	.761	1.61E+05	2.96E+03
1.181	1004.8	.786	1.47E+05	1,29E+04
1.245	796.2	. 843	2.81E+05	
1.283	725.9	.878	1.52E+05	
1.321	806.0	.899	9.97E+04	

INEL POST-CHE EXPERIMENT NO. 243

	THEE TOS	I-CIII EX	CHIPPE	141 140		
POINT SERIA			(TIME	= 136	.50 SEC)	
LOOP PRESSU		,		16.04	MPA	
FCV TEMPERA		CV-1T1		550.7		
LHP INLET E		CA-111		0E+06		
			1.66	01.00	3710	
TEST SECTIO				7.01	MDA	
PRESSU						
SAT TE				59.07	KG/SEC-	MARC
MASS F						M5
	QUALITY			032		
	ENTHALPY		1.22	0E+06	J/KG	
QUENCH FROM				700		
ELEVAT				. 794		
VELOCI					M/SEC	
QUALIT				.515		
NET LHP POW	ER TO FLU	10		0.0	W	
VAPOR TEMPE	RATURE ME	ASUREMEN	T LOCA	TION	INFORMAT	ION
ELEVATION			XE	XA		
(M)	(M)	(K)				
1.232	.438	645.0	. 824	.685		
					W.CODMAT	ON
WALL TEMPER				TON I	FURMALI	WEAT LOSS
ELEVATION		XE			FLUX	HEAT LOSS
(M)	(K)			W/M		W/M**2
.013	567.3	02	3	1 58	E+05	
.051	569.7	.00			E+05	
	566.3				E+05	
.063	568.8			1.58		
.089	566.6			1.58		
. 114				1.58		
. 140	566.0 563.2				E+05	
. 165		. 18			E+05	
. 317	571.3	7.205			E+05	
. 394	570.9			1.60		
.470	576.9					
.546	586.9	. 33		1.62		
.622	586.1			1.61		
.698	612.6			1.69		
.775	778.6			2.07		
.851	912.0			1.68		
.927	956.5	.61			E+05	
1.003	993.9				£+05	
1.079	988.1				E+05	
1.143	1026.8				E+05	1 075+04
1.181	1003.9				E+05	1.07E+04
1.245	723.3	. 84		2.66		
1.283	734.7	. 88	2	1.44	E+05	

.901

9.23E+04

1.321

833.5

1.283

1.321

1002.5

1048.1

INEL POST-CHE EXPERIMENT NO. 244

POINT SERIAL NO. 1244.061 (TIME= 149.50 SEC) (INFERRED VAPOR TEMP) LOOP PRESSURE (PE-3) 16.02 MPA FCV TEMPERATURE (TE-FCV-1T) 549.5 K LHP INLET ENTHALPY 1.214E+06 J/KG TEST SECTION: PRESSURE 7.01 MPA SAT TEMP 559.00 K MASS FLUX 24.16 KG/SEC-M**2 INLET QUALITY -.036 INLET ENTHALPY 1.214E+06 J/KG QUENCH FRONT: ELEVATION .137 M VELOCITY .0004 M/SEC QUALITY .019 NET LHP POWER TO FLUID 0.0 W VAPOR TEMPERATURE MEASUREMENT LOCATION INFORMATION (INFERRED VAPOR TEMP) ELEVATION TV DZQF XA (M) (M) (K) 1.232 1.095 650.0 .587 .484 WALL TEMPERATURE MEASUREMENT LOCATION INFORMATION HEAT LOSS ELEVATION TEMP XE HEAT FLUX (M) (K) W/M**2 W/M##2 .013 566.8 -.031 5.73E+04 .051 568.8 -.015 5.73E+04 .063 565.5 -.010 5.70E+04 .089 568.0 -.000 5.73E+04 .114 565.7 .010 5.71E+04 . 140 563.0 .020 5.65E+04 . 165 561.4 .030 5.68E+04 .317 570.5 .091 5.79E+04 . 394 569.5 .122 5.76E+04 .470 579.1 . 153 5.92E+04 .546 588.6 . 185 6.09E+04 .622 583.6 .218 6.01E+04 597.6 .698 .250 6.34E+04 .775 618.3 .285 6.59E+04 .851 600.3 .319 6.30E+04 . 355 .927 614.6 7.11E+04 1.003 611.6 .399 9.25E+04 1.079 808.4 .461 1.42E+05 1.143 861.1 .522 1.31E+05 1.181 876.0 .553 1.04E+05 1.244 959.2 . 594 8.06E+04

.613

.629

5.95E+04

5.70E+04

INEL POST-CHF EXPERIMENT NO. 244

		on can	EKTHENI NO	. 644	
POINT SERI	AL NO. 12	244.070	(TIME= 161	.50 SEC)	
LOUP PRESS	URE(PE-3)		16.05	MPA	
FCV TEMPER	ATURE (TE-	CV-11)	549.5		
LHP INLET			1.214E+06		
TEST SECTION	ON:		112112100	07110	
PRESS	URE		7.00	MPA	
SAT T	EMP		558.97		
MASS	FLUX			KG/SEC-	M**2
INLET	QUALITY		036		
The state of the s	ENTHALPY		1.214E+06	J/KG	
QUENCH FROM	Control of the Contro				
ELEVA			. 143	M	
VELOC			.0004	M/SEC	
QUALI			.055		
NET LHP PO	WER TO FLU	IID	0.0	W	
VAPOR TEMP	ERATURE ME	ASUREMENT	LOCATION	INFORMAT	ION
ELEVATION	DZQF	TV	XE XA		
(M)	(M)	(K)			
1.232	1.089	603.1	.555 .497		
WALL TEMPER	RATURE MEA	SUREMENT	OCATION II	NEORMATI	ON
ELEVATION	TEMP	XE		FLUX	HEAT LOSS
(M)	(K)		W/M		M/M**2
.013	565.8	~.030	5.721	+04	
.051	567.6				
.063	564.8	010			
.089	567.0	.000	5.731	E+04	
. 114	564.8	.010	5.731	+04	
. 140	562.7	.020	5.668	+04	
. 165	560.9	.031	5.698	+04	
.317	568.8	.092	5.778	+04	
. 394	568.0	. 122	5.761		
.470	575.5	. 154	5.878		
.546	582.7	. 185	5.998		
.622	578.9	.217	5.961		
. 698	589.1	.249	6.116		
.775	606.1	. 283			
.851	592.2	. 316	6.101		
. 927	599.7	. 349			
1.003	593.0	. 382	6.328		
1.079	697.2	. 422			
1.143	724.6	.483			
1.244	819.7	.523			
1.283	931.5	.561			
1.203	1003.3	.578	5.828	+04	

.594

6.17E+04

1.321

1048.0

POINT NO.	PRESS	MASS FLUX (KG/S-M**2)	TVAPOR	XCHF	DZQF	XA	ΧE	DXA/DZ (1/M)	VAP GEN RATE
1022.010	. 48	18.24	716.5	.439	1.321	.547	.705	.002	•092
1024.010	.79	17.60	772.8	.413	1.321	.561	.753	.005	•305
1025.010	•30	14.27	754.1	. 457	1.321	.498	.665	.004	• 206
1026.010	.30	14.17	733.3	. 452	1.321	.472	.620	.002	.085
1027.010	.30	14.12	701.8	. 455	1.321	. 477	.612	.000	.022
1028.010	• 29	14.13	663.1	. 459	1.321	.542	.675	.003	.135
1036.010	.48	18.51	777.9	.443	1,334	.543	.731	.006	.368
2036.010	.48	16.51	838.0	. 443	1.638	.547	.774	.010	.619
1037.010	. 29	14.01	792.6	.462	1.334	•521	.715	.008	•367
2037.010	.29	14.01	851.1	.462	1.638	.529	.757	.009	•433
1038.010	.29	13.14	770.2	.460	1.334	.503	.675	.007	.288
2038.010	.29	13.14	828.4	.460	1.638	.510	.711	.008	. 339
1030.010	.30	13.47	766.5	.456	1.334	.501	.673	.006	.280
2039.010	.30	13.47	622.8	.456	1.638	.507	.709	.008	.352
1040.010	.30	12.31	730.3	. 456	1.334	.497	.650	.004	.179
2040.010	.30	12.31	782.3	.456	1.638	.501	•680	.006	•256
1041.010	.30	14.48	678.0	.459	1.334	.518	.652	.002	.107
2041.010	.30	14.48	722.3	. 459	1.638	.520	.677	. 004	•197
1043.010	.46	16.21	743.7	.322	1.334	.392	.517	.010	.516
2043.010	.46	16.21	784.6	.322	1.638	.402	.547	.012	.615
2043.010		7 17 7 7							

POINT NO.	PRESS (MPA)	MASS FLUX (KG/S-M**2)	TVAPOR (K)	XCHF	DZQF (M)	XA	XE	DXA/DZ (1/4)	VAP GEN RATE (KG/S-M++3)
1044.010	.46	19.10	680.9	.324	1.334	.446	.560	.004	.264
2044.010	.46	19.10	727.0	.324	1.638	. 450	. 586	.009	.575
1045.010	. 46	16.96	736.4	.322	1.334	.400	•526	.009	.499
2045.010	•46	16.96	779.0	.322	1.638	. 409	• 555	.012	.688
1049.010	.45	14.21	832.8	.260	1.334	.376	•530	.017	.806
2049.010	. 45	14.21	885.0	.260	1.638	.393	.572	.019	.899
1050.010	.48	19.22	8 29 . 1	.272	1.163	.351	.493	.019	1.174
2050.010	.48	19.22	893.3	.272	1.468	.370	.541	.024	1.521
1050.020	. 48	18.59	791.9	.293	1.066	.362	.492	.016	.988
2050.020	.48	18.59	864.2	. 293	1.371	.378	.542	.021	1.303
1050.030	• 48	18.73	761.7	.303	.994	.361	.484	.016	.956
2050.030	.48	16.73	847.9	•303	1.299	.377	.533	.020	1.204
1050.040	.48	18.74	744.0	.317	.916	.372	. 489	.015	.941
2050.040	. 43	18.74	824.0	.317	1.221	. 387	.541	.018	1.131
1050.050	.48	18.70	714.1	.334	.845	.392	.506	.015	•903
2050.050	.48	18.70	808.2	. 334	1.150	.407	.560	.020	1.200
1050.060	. 48	18.72	683.8	.348	.763	.399	.502	.013	.817
2050.060	•48	18.72	78 1. 7	.348	1.067	.412	.558	.020	1.198
1050.070	. 48	18.65	657.3	.362	.685	.407	.500	.009	.581
2050.070	.48	18.65	761.2	.362	.990	. 416	.557	.017	1.014

POINT NO.	PRESS (MPA)	(KG/S-M**2)	TVAPOR (K)	XCHF	DZQF (M)	XA	ΧE	DXA/DZ (1/4)	VAP GEN RATE
1050.080	.48	18.62	629.8	.388	.610	.436	.526	.010	.608
2050.080	.48	18.62	740.9	.388	.915	.446	.587	.018	1.074
1050.090	.48	18.47	598.9	.407	.539	.452	•532	.006	•361
2050.050	.48	18.47	722.0	.407	.843	. 458	.594	.015	.892
2050.100	.48	18.46	704.5	.435	.762	. 484	.616	.013	.798
2050.110	.48	18.52	677.9	. 455	+681	.497	.620	.011	.678
2050.120	.48	18.47	652.7	.488	•613	.532	.651	.011	.695
2050.130	.48	18.53	620.2	.520	.533	.559	.668	.009	.530
2050.140	.48	18.48	590.2	.563	. 454	.600	.700	.006	.379
2050.150	.48	18.49	558.1	.603	.382	.640	.727	•002	•111
2050.160	. 48	18.53	527.2	.656	.315	.690	.763	.001	•032
1066.020	.49	45.06	684.5	.269	1.068	. 324	.408	.002	.315
2066.020	.49	45.06	769.8	. 269	1.372	.326	. 439	. 023	3.427
2066.030	.49	44.89	765.7	•277	1.290	.329	.440	.025	3.668
2066.040	.49	44.48	747.1	.284	1.216	.334	.442	.023	3.304
2066.050	.49	44.39	738.6	. 293	1.156	.340	. 447	.021	3.045
2066.060	.49	44.07	719.5	.308	1.070	• 353	•458	•023	3.309
2066.070	.49	43.86	705.0	.321	.992	.363	.464	.025	3.597
1066.081	.49	43.69	570.0	.332	.609	.377	.433	.000	.038
2066.060	.49	43.69	687.4	.332	.913	. 377	.477	.020	2.827

DON THIES	PRESS (MPA)	MASS FLUX (KG/S-M++2)	TVAPOR (K)	XCHF	DZQF (M)	XA	ΧĒ	0 XA/DZ (1/4)	VAP GEN RATE (KG/S-M++3)
2066.090	.49	43.92	669.1	. 347	.834	.389	.484	.021	2.955
2066.100	.49	43.86	652.6	.364	•762	.403	.495	.019	2.663
2066.110	.49	43.52	634.9	.379	.695	.416	.504	.020	2.860
2066.120	. 49	43.25	621.5	.393	.634	.428	.513	.017	2.471
1068.010	.48	17.94	771.3	.307	1.092	.348	.469	.004	.229
2068.010	• 48	17.94	858.2	.307	1.397	.352	•506	.013	.763
2068.020	.48	17.85	828.6	.328	1.291	.360	.507	.008	.439
2068.030	.48	17.68	813.5	.342	1.221	.374	.520	.011	.642
2068.040	.48	17.83	816.6	.357	1.145	.382	•533	.013	.781
2068.050	.49	17.74	791.2	.372	1.066	.399	.546	.015	.862
2068.060	.49	17.84	771.2	.386	.994	.410	.553	.017	.997
2068.070	. 49	17.80	750.2	. 398	.913	.430	.565	.010	.597
2068.080	.49	10.39	720.0	.390	.841	. 422	.546	.009	.559
2068.090	.49	19.46	708.5	.375	.767	.410	.524	.012	.745
2068.100	. 49	20.46	682.7	.365	.674	.393	.495	.014	.953
2068.110	.49	20.56	657.6	.368	.605	.396	.487	.013	.846
2068 • 120	.49	20.59	628.2	.380	.537	.407	.490	.011	.744
2068.130	.49	20.56	609.1	.386	. 468	.407	.482	.014	•920
2092.080	3.58	32.19	732.7	.163	.380	.174	.230	.000	•051
1095.020	3.58	60.98	729.0	.113	1.125	.250	.328	.035	6.916

POINT NO.	PRESS (MPA)	MASS FLUX (KG/S-M**2)	TVAPOR (K)	XCHF	DZQF (M)	XA	ΧE	DXA/DZ (1/M)	VAP GEN RATE (KG/S-M**3)
2095.031	3.58	60.27	755.0	. 144	1.229	.259	.349	.009	1.869
1096.020	3.58	49.11	580.1	.152	.331	.182	.202	.001	•225
1096.031	3.59	49.40	540.0	.164	.225	.193	.202	.005	.789
1096.041	3.58	49.54	520.0	.167	.151	.200	.202	.007	1.140
1101.010	.81	23.69	761.9	.228	.995	.312	.416	.008	.647
2101.010	.81	23.69	829.1	.227	1.300	.320	.451	.021	1.620
1101.020	.81	23.58	738.8	.228	.912	.292	.384	.015	1.171
2101.020	. 91	23.58	809.3	.229	1.217	.307	. 427	.022	1.695
1101.031	.80	22.93	702.0	. 241	.842	.302	.385	.010	.759
2101.030	. 80	22.93	800.7	.242	1.147	.312	.430	.016	1.201
1101.041	.80	22.68	679.0	.252	.754	. 300	. 375	.008	•614
2101.040	.80	22.68	790.7	.252	1.059	.308	.422	.015	1.127
1101.050	. 80	22.38	665.0	. 264	.676	.302	.373	.007	•502
2101.050	.80	22.38	776.7	.264	.981	.309	.418	.019	1.406
1101.061	.81	22.10	630.0	.275	.614	.311	.373	.006	.430
1102.020	.81	40.20	737.2	.232	.914	.286	.375	.018	2.386
2102.020	.81	40.20	788.3	.232	1.218	.304	.415	.026	3.451
1102.030	.81	39.91	718.0	.243	.842	.290	.375	.021	2.706
2102.030	.81	39.91	763.3	.243	1.147	.311	.416	.022	2.852
1102.040	.81	39.74	687.9	.253	.760	.299	.376	.017	2.193

POINT NJ.	PRESS	(KG/S-M*#2)	TVAPOR (K)	XCHF	DZQF (M)	XA	XE	DXA/DZ (1/M)	VAP GEN RATE
2102.040	.81	39.74	753.3	•253	1.065	.315	.419	.021	2.768
1102.050	.81	39.45	670.8	.265	.689	.305	.379	.019	2.419
2102.050	.81	39.45	731.6	.265	.993	.324	.423	.018	2.376
1102.060	.81	38.83	640.7	. 280	.609	.316	.383	.016	2.095
2102.060	.81	23.83	714.4	.280	.914	.333	.428	.017	2.208
1102.070	. 31	38.86	618.4	.289	.532	.321	.381	.020	2.499
2102.070	.81	38.82	693.0	.289	.840	.340	.430	.014	1.836
2102.080	.81	38.67	673.4	•300	.768	.348	.432	.012	1.475
2102.100	.81	38.30	636.8	.322	.649	.364	.439	.007	.894
1106.010	.80	18.36	759.4	.096	1.139	.301	.402	.021	1.251
2106.010	.80	18.36	849.5	.095	1.444	.322	.461	.039	2.361
1106.020	.80	18.24	689.7	.105	1.111	.315	.398	.008	.475
2106.021	08.	18.24	840.0	.105	1.416	.323	.459	.040	2.417
2106.031	.80	18.24	830.0	.120	1.372	.320	.451	.043	2.554
2106.040	.80	18.20	736.9	.134	1.225	.304	.398	.023	1.400
2106.050	. 80	18.20	716.2	.142	1.146	.316	.407	.020	1.219
2106.061	.80	18.17	720.0	.147	1.110	.318	.411	.018	1.088
1107.010	.81	46.24	717.6	.126	.841	.188	.243	.020	3.057
2107.010	.31	46.22	780.2	.126	1.144	.208	.282	.024	3.585
1107.030	. 81	45.73	678.8	.144	.692	.188	.234	.015	2.312

CH THIES	PRESS	MASS FLUX (KG/S-M**2)	TVAPOR	XCHF	DZ QF	XA	XE	DX A/DZ (1/4)	VAP GEN RATE
2107.030	. 81	45.73	759.1	.144	.997	.203	.271	.024	3.548
1107.040	.80	45.65	640.2	• 15 1	.631	.192	.233	.015	2.193
2107.040	.80	45.60	741.9	.151	.937	.207	.272	.020	2.936
1107.050	.81	45.43	617.2	.158	.570	.197	.234	.011	1.624
2107.050	.81	45.43	742.1	.158	.875	.208	.273	.022	3.236
2107.060	.81	45.02	716.9	.162	.838	.210	.270	.017	2.498
2107.070	.81	44.91	711.1	.174	.760	.218	.280	.016	2.325
2107.080	. 31	44.51	680.0	.186	.683	.228	.285	.014	2.032
2107.090	.80	44.67	656.8	.192	.636	.233	.284	.012	1.815
2107.100	.81	44.41	639.5	.199	.573	.233	.281	.011	1.619
1110.040	.81	50.59	668.7	.013	.910	. 126	.156	.025	4.153
2110.040	.81	50.63	712.6	.013	1.222	.151	.194	.024	3.900
1110.050	.81	50.15	647.3	.019	.840	.122	.149	.054	4.470
1110.060	.81	50.13	637.5	.027	.758	.114	.138	075	6.206
2111.010	. 34	18.85	780.7	.365	1.258	.391	.531	.003	.202
2111.020	.36	18.96	766.0	.371	1.220	. 394	.530	.004	.245
2111.050	.35	18.72	732.7	. 383	1.106	.398	.522	.003	.163
1111.060	.35	18.65	622.1	.386	.759	.404	.486	.000	.013
1111.070	.35	18.66	606.6	.390	.731	.410	.487	.001	.047
1111.080	.34	18.90	599.4	. 394	.684	.411	. 485	.002	.117

POINT NO.	PRESS (MPA)	(KG/S-M**2)	TVAPOR (K)	XCHF	DZQF	XA	ΧE	DXA/DZ (1/M)	VAP GEN RATE (KG/S-M++3)
2113.010	•37	43.09	710.6	.422	1.424	.478	.616	.003	.490
2113.020	.38	42.00	690.6	.421	1.372	.477	.606	.004	.573
2113.030	.37	41.25	664.2	.426	1.299	.480	.597	.001	•077
2115.020	. 49	23.20	767.0	.495	1.284	.512	.688	.001	.089
1115.060	. 49	23.03	587.0	.527	. 678	.544	.634	.000	.021
1115.070	.49	23.18	570.7	.531	.631	.550	.631	.002	.164
2116.040	.48	17.76	661.4	. 495	1.093	•501	.620	.001	.045
1118.050	.79	17.70	634.0	.499	.613	.515	.620	.005	.267
1125.011	7.07	30.81	805.0	.277	1.052	.555	.818	.013	1.362
1125.021	7.07	30.66	782.0	.325	.942	.549	.788	.013	1.279
1125.030	7.06	30.66	761.8	.339	.899	.555	.779	.001	.085
1125.041	7.07	30.65	744.0	. 362	.839	.560	.770	.013	1.275
1125.050	7.06	30.69	733.4	.387	. 784	.561	.761	.019	1.875
1125.061	7.06	30.49	695.0	.404	•682	•557	.721	.014	1.414
1125.071	7.06	30.29	672.0	.419	•613	.567	.711	.015	1.509
1125.081	7.06	30.11	639.0	.432	•530	. 583	.695	.012	1.145
1171.050	.72	23.85	792.1	.093	•793	.239	.327	.069	2.709
1171.061	• 72	23.63	740.0	.111	.688	.230	.302	.071	2.760
1174.030	.72	35.60	752.9	.038	.970	.182	.241	.055	3.199
1174.041	.72	35.63	723.0	.049	.894	.179	.232	.050	2.935

POINT NO.	(MPA)	MASS FLUX (KG/S-M**2)	TVAPOR (K)	XCHF	DZQF (M)	XA	XE	DXA/DZ (1/M)	VAP GEN RATE
1175.051	3.50	25.89	810.0	. 395	.912	.482	.683	.056	2.358
1175.061	3.50	25.79	760.0	.397	.835	.478	.647	.053	2.235

APPENDIX I HEAT LOSS TEST RESULTS

APPENDIX I HEAT LOSS TEST RESULTS

The heat losses for the two types of experiments, steady state and quasi-steady-state, are discussed in this appendix. The steady-state data are discussed in Section 1, and the quasi-steady-state situation is discussed in Section 2.

I-1. Steady-State Heat Losses

Steady-state heat losses were determined from the standard application of a simple energy balance. (Note: Steady state implies power balance.) The hot patches and test section were brought to temperature and allowed to reach thermal equilibrium under no-flow, nitrogen-filled conditions. Measurement of the power required to hold the test section, lower hot patch, and upper hot patch at a given temperature provided a measure of the power lost to the environment through the insulation. Table I-1 lists, and Figure I-1 shows, the results obtained for these calibration tests for these components. The test section temperature was controlled by a thermocouple (TE-TS-71) located at the 180.34-cm elevation, and the lower and upper hot patch temperatures were controlled by thermocouples (TE-LHP-1 and

TE-UHP-S) located in the two respective hot patches.

Figure I-2 shows a typical temperature distribution along the test section during two of the hightemperature (900 K) tests of this heat loss series. Temperature depressions exist at several locations along the test section. Generally, the upper end of the test section where the vapor probes are located shows a lower temperature (60 K lower) than does the lower part. This depression is attributed to (a) the vapor probes decreasing the local electrical resistance and (b) very slight heat losses due to conduction out of the vapor probe aspiration lines. The lower of two other local depressions, at the 22.9-cm level, arose due to a gamma-densitometer source that was originally located there during the heat loss series. The second local depression, at the first vapor probe (121.9 cm), was due to the combined effects of the vapor probe and a gammadensitometer source located there.

In an effort to separate these effects, a simplified analysis of the temperature distribution shown in

Table I-1. Results of component power calibration tests

	Test Sect	ion	Lower Hot	Patch	Upper Hot Patch		
Heat Loss Test	Temperature (K)	Power (W)	Temperature (K)	Power (W)	Temperature (K)	Power (W)	
9.4.A	500	16.47	501	149.98	500	118.21	
9.4.B	704	60.62	500	146.53	500	114.08	
9.4.C	904	146.19	500	131.17	500	95.98	
9.4.D	500	14.55	702	364.50	699	284.14	
9.4.E	700	70.22	702	361.71	700	269.12	
9.4.F	904	128.83	703	337.92	699	249.65	
9.4.G	900	122.74	802	486.72	801	351.67	
9.4.H	683	69.39	701	380.50	699	278.43	

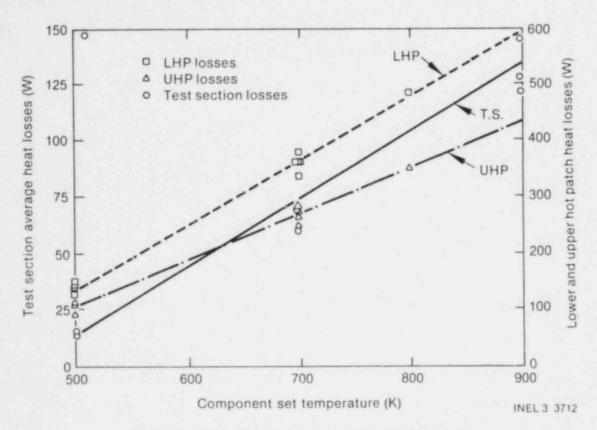


Figure 1-1. Measured heat losses versus component temperature.

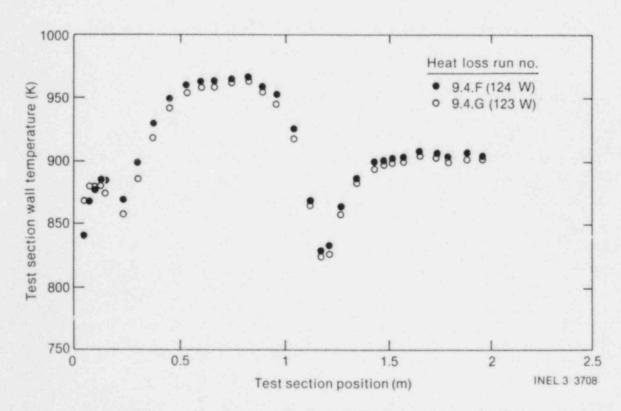


Figure 1-2. Test section temperature distribution during high-temperature heat loss test.

Figure I-2 was performed. Assuming that the heat loss process was dominated by one-dimensional radial heat flow through the insulation, a simplified analysis was performed to determine the effect of the vapor probes on the lower wall temperature in the upper portion of the test section. Simple, worst-case calculations of axial conduction out the vapor probes were made, in which a complete temperature drop to ambient environmental temperature, Tamb, was assumed over the insulated length of the probe line. For all the probes, the total power loss was found to be less than 0.05 W. Hence, the temperature depression of the upper portion of the test section is primarily attributed to decreased electrical resistance at the vapor probe locations.

The heat flux, q, flowing out the insulation, assuming constant thermal conductivity, k, and an external heat transfer coefficient, h, is given by

$$q = \frac{\frac{T_{wall} - T_{amb}}{\ln(\frac{1}{0}/\frac{1}{0})}}{\frac{2\pi k}{2\pi k} + \frac{1}{\pi d_{i}h}}.$$
 (I-1)

The test section can be divided into several segments along its length so that the test section heat loss power is given by

$$P_{T.S.} = \sum_{j=1}^{n} q_{j} A_{j}$$
 (I-2)

where

$$A_j = \pi d_0 L_j .$$

Substituting Equation (I-1) into (I-2) and reducing the results yields an expression for T_{amb} given by

$$T_{amb} = \frac{1}{L_{T.S.}} \left(\sum_{j=1}^{n} T_{wall,j} L_{j} \right) - P_{T.S.} \left[\frac{\ln(d_{o}/d_{i})}{2\pi k} + \frac{1}{\pi d_{i}h} \right]. \quad (I-3)$$

Substituting the appropriate values from Figures I-1 and I-2 yields $T_{amb} \approx 370 \text{ K}$. Substituting this value back into Equation (I-1) for each segment then yields an approximate heat flux of 1.14 kW/m² over the high temperature segment, and 1.03 kW/m² over the

segment where the vapor probes are located. Thus, the vapor probes represent an 11% average decrease in the local electrical resistance.

A second check on the approximate value of this average decrease in resistance can be found by first observing the approximate length of the constant temperature segment of the upper test section temperature depression (75 cm). If the vapor probes reduced the resistance of the tube to zero at each of their axial locations, the maximum decrease in resistance possible over this 75-cm segment of the test section would be 12.5%. This value is in good agreement with the previously calculated average value of 11%. These factors indicated, then, that the temperature depression of the upper end of the test section was most likely caused by a decrease in electrical resistance, created by the presence of the vapor probes.

In order to add further confidence to the vapor probe effect, the effect of the gamma sources was investigated at the 22.9-cm level temperature depression. Considering Figure I-3, an energy balance yields

$$q_{\text{normal losses}} + \gamma_{\text{losses}} = (q_{\text{axial 1}} + q_{\text{axial 2}}) + q_{\text{hot segment}}$$

where

Anormal losses + ylosses represents the combined loss due to the normal heat losses plus the losses due to the y source.

Approximating the two axial conduction heat fluxes, $q_{axial\ 1}$ and $q_{axial\ 2}$, from Figure I-2 yields $3\ kW/m^2$ and $5.5\ kW/m^2$, respectively, and q_{hot} segment is the heat flux previously calculated for the hotter portion of the test section given by $1.14\ kW/m^2$. Thus, $q_{normal\ losses} + \gamma$ losses is calculated to be $1.32\ kW/m^2$, or approximately 16% higher than the normal heat losses without the gamma-densitometer source.

To provide a further check on these separate factors, the local temperature depression at the first vapor probe at 121.9 cm can be calculated using the combined effects of a reduced electrical resistance, due to the presence of the vapor probe, and increased losses, due to the source. Again, applying an energy balance yields

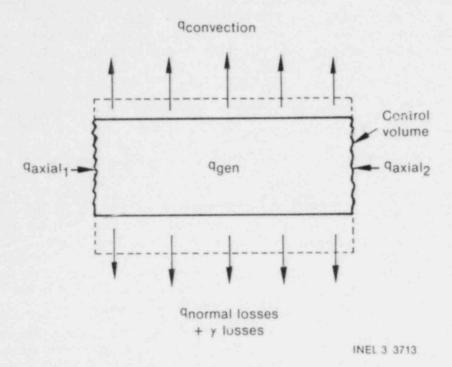


Figure I-3. Free body diagram for energy balance.

$$\frac{T_{\text{wall}} - T_{\text{amb}}}{\frac{\ln(d_{\text{O}}/d_{\text{i}})}{2\pi k} + \frac{1}{\pi d_{\text{i}} h}} = q_{\text{generated}} - q_{\text{loss}}$$

$$= q_{\text{generated}} - q_{\text{loss}}$$

$$= \text{reduced} \quad \text{y-source}$$

$$= (1.03 - 0.19 \text{ kW/m}^2). (I-5)$$

Using the appropriate test section properties and dimensions yields an approximate wall temperature of 800 K. This is in reasonable agreement with the temperature depression shown in Figure I-2 and adds confidence to the estimated separate loss effects.

I-2. Transient Heat Losses

Heat losses from the test section during the quasisteady-state experiments are discussed in this section. During these experiments, the temperature of the test section wall and the temperature gradient in the surrounding fiberfrax insulation underwent a thermal transient, so that the heat transfer between the test section and insulation could vary in both direction and magnitude for a given transient. Therefore, the steady-state heat losses described in the previous section do not apply for the quasi-steady-state experiments. However, the effect of the decrease in test section electric resistance due to the vapor probes remains valid and has been included in the analysis of the quasi-steadystate test runs. An analysis, described in the following paragraphs, was conducted to bound the magnitude of the heat transfer rates between the test section and the insulation. The results showed that the heat transfer rates were generally less than the steady-state heat losses at a given test section wall temperature. Since it would not be feasible to calculate the local heat transfer rates between the test section and insulation with time for each quasisteady-state experiment, this value was assumed to be zero for all of these experiments, with the upper bound on the estimated heat transfer rates being included in the uncertainty in test section wall heat fluxes reported in Appendix H. This uncertainty $(\sim 2 \text{ kW/m}^2)$ is significantly higher $(\sim 8\%)$ for lowpower experimen's than for the high-power experiments (<1%).

To determine the general effects of the heat losses on the experiment, it is useful to first observe the various effects they may produce. Writing an energy balance on a segment of cladding, similar to that shown in Figure I-3, in terms of heat flux and neglecting the effects of axial conduction, produces

$$q_{gen} \left(\frac{d_o^2 - d_i^2}{4d_i} \right) - q_{conv} - q_{losses} \left(\frac{d_o}{d_i} \right)$$

$$= \varrho C \frac{dT}{dt} \left(\frac{d_0^2 - d_i^2}{4d_i} \right). \tag{I-6}$$

This may be rewritten in terms of the rate of change of the wall temperature so that

$$\frac{dT}{dt} = \frac{1}{\varrho C} \left[q_{gen} - q_{conv} \left(\frac{4d_i}{d_o^2 - d_i^2} \right) - q_{losses} \left(\frac{4d_o}{d_o^2 - d_i^2} \right) \right]. \tag{I-7}$$

Study of dT/dt is important because it determines the stored energy term given in Appendix F.

Considering initially the case with no losses, one obtains

$$\frac{dT}{dt}\bigg|_{q_{\text{losses}} \equiv 0} < 0 \text{ if } q_{\text{gen}} < q_{\text{con}} \sqrt{\frac{4d_i}{d_o^2 - d_i^2}}$$
(I-8)

or

$$\frac{dT}{dt}\Big|_{q_{\text{losses}} \equiv 0} > 0 \text{ if } q_{\text{gen}} > q_{\text{conv}} \left(\frac{4d_i}{d_o^2 - d_i^2}\right)$$

(I-9)

These results indicate the obvious conclusion that, if more energy is supplied than is removed by convection, the test section wall temperature increases with time and decreases if the opposite is true. If one investigates further, the case with less heat generated than removed convectively, i.e.,

$$q_{gen} < q_{conv} \left(\frac{4d_i}{d_o^2 - d_i^2} \right), \text{ produces}$$

$$\frac{dT}{dt} \bigg|_{q_{losses} > 0} < \frac{dT}{dt} \bigg|_{q_{losses} \equiv 0}$$
(I-10)

for heat lost into the insulation, and

$$\frac{dT}{dt}\Big|_{q_{losses} \equiv 0} < \frac{dT}{dt}\Big|_{q_{losses} > 0}$$
 (I-11)

for heat into the test section from the insulation. These combine, then, to yield

$$\frac{dT}{dt} \Big|_{q_{losses}} < \frac{dT}{dt} \Big|_{q_{losses}} = 0$$

$$< \frac{dT}{dt} \Big|_{q_{losses}} < 0$$
(I-12)

when
$$q_{gen} < q_{conv} \left(\frac{4d_i}{d_o^2 - d_i^2} \right)$$
. (I-13)

Similarly,

$$\frac{dT}{dt} \bigg|_{q_{losses} > 0} < \frac{dT}{dt} \bigg|_{q_{losses} \equiv 0}$$

$$< \frac{dT}{dt} \bigg|_{q_{losses} < 0}$$

when
$$q_{gen} > q_{conv} \left(\frac{4d_i}{d_o^2 - d_i^2} \right)$$
. (I-14)

These losses from the wall to the insulation cause heatups to be slower and cooldowns to be faster, whereas heat from the insulation to the wall causes cooldowns to be slower. The case of heat from the insulation during a heatup is not practical for these experiments.

The quasi-steady-state experiments described in Appendix B were conducted by heating the test section to an intermediate temperature (800 to 900 K) prior to initiating flow through the test section. This condition was sustained for at least 10 min, so that a nearly steady-state temperature gradient in the fiberfrax insulation was obtained. At the start of an experiment, the test section power was reset to the desired level, and the temperature was reset to 1150 K. During this heatup, the heat loss from the test section wall to the insulation increased and, as noted above in Equation (I-14), caused the heatup to be slower than if no losses were present. When the test section wall reached 1075 to 1100 K, about 50 s after the start of heatup, the test section flow

was initiated. At this point, the test section wall began to cool, with the cooldown rate being primarily controlled by the heat flux to the coolant on the inside of the test section wall [see Equation (I-7)]. Cooldown rates varied from about 0.3 to about 3.6 K/s, depending on the flow rate and power used for a given test run. Depending on the test section cooldown rate, the wall temperature could be higher or lower than the adjacent insulation, so that heat could flow either to or from the insulation, and the heatup or cooldown rates were influenced according to Equations (I-13) and (I-14).

To better quantify the effects of the losses, a model of the insulation was set up and calculations were performed using the HEAT1 computer code1-1 to determine the heat transfer rates between the test section and the insulation for the two bounding cases mentioned above. HEAT1 is a onedimensional transient heat conduction program in which temperature-dependent material properties and time-dependent boundary conditions can be used. The model consisted of 41 radial nodes in a cylindrical geometry, where the left boundary was the inner radius of the insulation (or water radius of the test section) and the right boundary was the outer radius of the insulation. A zero contact resistance between the test section and insulation was assumed; therefore, the time-dependent temperature of the test section was the boundary condition on the left boundary of the model. A heat transfer coefficient of 5.68 W/cm2·K was assumed on the right boundary, with an ambient temperature of 300 K. The actual thermal conductivity of the insulation was determined from the steady-state heat loss experiments, in order to match the measured loss of 0.98 kW/m² at 900 K. It was found that an effective thermal conductivity of the fiberfrax of 59% of the manufacturer's values (listed in Appendix A) was required to predict the measured steady-state heat losses.

To begin the calculation, a test section wall temperature of 900 K was assumed, and the steady-state temperature distribution in the insulation was calculated. The test section wall was then assumed to heat up, at a rate of 3.5 K/s, to 1075 K in 50 s. For a realistic calculation, the actual test section cooldown rate from test Run 102, ranging from 0.2 to 2 K/s, was used for the left boundary condition. The temperature distributions at various times during the transient are plotted in Figure I-4. It can be seen that heat flowed from the test section to the insulation early in the transient, whereas the trend

was reversed after about 300 s into the transient. During the time that a quench front was in the test section where data points were obtained (after about

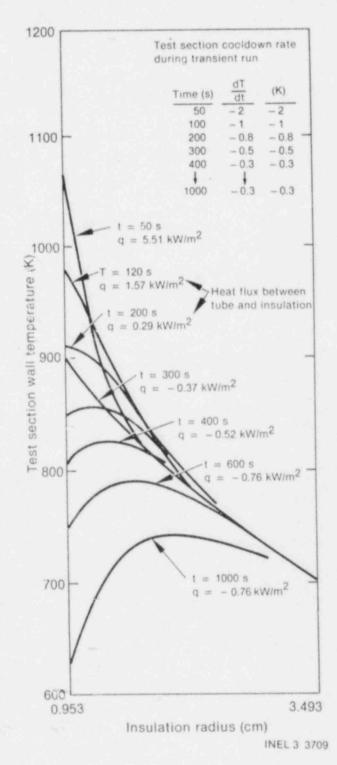


Figure 1-4. Sample transient temperature distribution in insulation using boundary conditions typical of Test Run 102.

120 s), the heat loss from the test section varied from 1.57 to -0.76 kW/m². This can be compared to a steady-state heat loss of 0.98 kW/m², when the test section wall temperature is 900 K. However, more important is the fact that, compared to the average nominal heat flux of 43 kW/m² calculated for this test, the maximum heat loss at about 120 s is less than 4% of the total heat flux, and by 200 s it has decreased to less than 0.7%. This indicates that care must be exercised in the selection of data during the early part of the quasi-steady-state runs, to ensure that heat losses have not influenced the calculated heat flux. See Appendix B for more information on the influence of qlosses on the selection of data points.

To further investigate this point, two other sample calculations were made, representing the maximum and minimum cooldown rates observed during the experiments. Results for a constant test section cooldown rate of 0.36 K/s are shown in Figure I-5. In this case, heat always flows from the test section to the insulation. Heat losses range from 5.5 to 1.1 kW/m² over a 550-s time interval. Similarly, results for a constant test section cooldown rate of 3.6 K/s are shown in Figure I-6. Heat losses range from 5.5 to -1.65 kW/m², over a 130-s time interval. One general conclusion to be drawn from all these calculations is that when the test section has cooled to a value less than or equal to its initial temperature, heat is transferred from the insulation to the test section.

On the basis of the above results and the data selection procedure (see Section 4 of the main text) for the quasi-steady-state runs analyzed, it is estimated that the upper limit on heat transfer rates between the test section and insulation is less than 2 kW/m². Since no heat transfer between the test section and insulation was assumed in the data reduction analysis of the quasi-steady-state experiments due to their transient nature, the value of 2 kW/m² is included in the uncertainty of the test section heat fluxes reported in Appendix H.

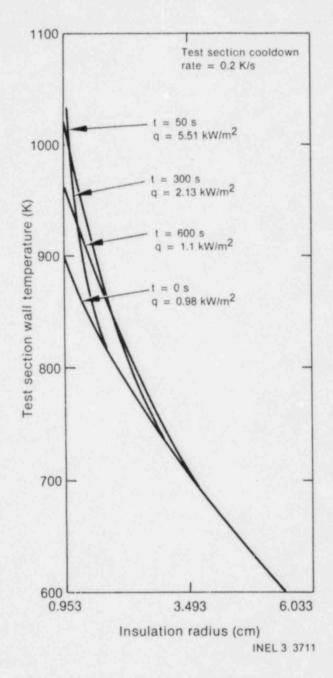


Figure 1-5. Sample transient temperature distribution in insulation using minimum cooldown rate experienced by test section.

Reference

I-1. Q. J. Wagner and L. C. Richardson, HEAT-1, A Program for the Numerical Solution of the One-Dimensional Steady-State or Transient Heat Conduction Problems, unpublished Aerojet Nuclear Company Report, August 1968.

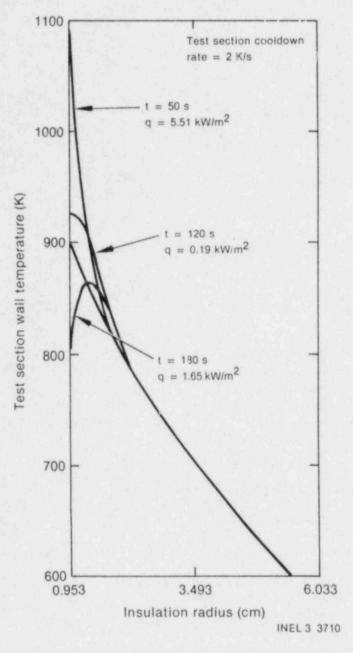


Figure 1-6. Sample transient temperature distribution in insulation using maximum cooldown rate experienced by test section.

APPENDIX J MEASUREMENTS LIST CHRONOLOGY

APPENDIX J MEASUREMENTS LIST CHRONOLOGY

During the course of the post-CHF experiment program, several changes were made in the location of various test section wall thermocouples and their identification numbers. The following is a description of these changes, as well as a list of the instruments that may have failed during the course of the experiment and other anomalies.

Lower hot patch thermocouple TE-LHP-2 was failed for the entire duration of the experiment.

Following the inadvertent overheating of the lower hot patch between test Runs 35 and 36, lower hot patch thermocouple TE-LHP-1 failed, due to a broken thermocouple wire that could not be repaired.

Also between Runs 35 and 36, the lower hot patch slipped down 12.7 mm on the test section, thus increasing the distance of each test section wall thermocouple from the lower hot patch by that amount. Test section wall thermocouple TE-TS-05 was moved 12.7 mm closer to the lower hot patch, making it still 12.7 mm from the lower hot patch. The thermocouple identification number remained the same.

Following Run 63, the test section was raised 3.81 cm relative to the test stand, to accommodate repositioning the densitometer source and the brackets which limited transverse motion of the test section. Thermocouple TE-TS-42 was relocated to the 105.41-cm axial level and was renamed TE-TS-41.5. Thermocouple TE-TS-47 was relocated directly opposite the first vapor probe at the 121.92-cm axial level and was renamed TE-TS-48A. Thermocouple TE-TS-51 was relocated to the 130.81-cm level and was renamed TE-TS-51.5 Thermocouple TE-TS-1 was relocated to the 3.81-cm

axial level, directly under the lower pressure tap on the test section, to determine whether the pressure tap had any influence on the quenching of the test section; it was later determined that it did not. Thermocouple TE-TS-1 maintained the same identification throughout the test program. The axial elevations just listed refer to the distance from the thermocouples to the original position of the lower hot patch and do not include the additional 12.7 mm caused by slippage of the lower hot patch between Runs 35 and 36.

Thermocouple TE-TS-81 did not function properly during Runs 64 through 77.

The leads for vapor probe TE-V-1 were hooked up incorrectly for Runs 64 through 116. A calibration test was performed to allow a correction to the raw data for these test runs, and the reduced data given in Appendix D are correct values.

Pressure measurements PE-TS-I and PE-TS-O were plotted as gauge pressure in the raw data plots up to and including Run 134; they were plotted as absolute pressure for Runs 135 through 247.

A 0.508-mm-diameter thermocouple wire was placed in vapor probe TE-V-2 for Runs 148 through 156. The response of the thermocouple was noticed to be slower than with the 0.254-mm-diameter wire, so it was replaced with a 0.254-mm-diameter thermocouple following Run 156.

Vapor probes TE-V-2 and TE-V-3 were plugged and not used for Runs 175 through 247.

Vapor probe TE-V-1 had a 0.508-mm-diameter grounded thermocouple installed in it for Runs 235 through 247, since no other 0.254-mm-diameter thermocouples were available for replacements.

APPENDIX K
DESCRIPTION OF SUBROUTINES IN DATA REDUCTION PROGRAM

APPENDIX K DESCRIPTION OF SUBROUTINES IN DATA REDUCTION PROGRAM

K-1. Su	bro	outine SETUP	ENDTM		End time for data analysis	
		ETUP is the first subroutine called duction program DTARED. All	Z(I)		Axial distance from test section inlet to each thermocouple (m)	
necessary d formed. Da	lata a ata ar	are read in, and bookkeeping is per- re read in from two sources; the first ser on file INPT as follows:	ZP(K)		Axial distance from test section inlet to each vapor probe (m).	
IDNO		Experiment identification number	If column read in poi		" of LINDX is greater than 0, then oss data	
LINDX		Heat loss index ABCD	ELOSS		Elevation of point loss (m)	
		where	DZLOSS		Length of point loss (m)	
		A = 1 for reduced heat genera- tion around probes	RLOSS		Magnitude of loss—percent of steady-state loss.	
		B = number of point losses			ource of input data comes from file	
		C = 1 for calculation of tube heat losses	experimenta	ıl da	The following data are input for n of the experiment.	
		D = 1 to include lower hot patch power with associated losses.	TM(J)		Time (s)	
NTC		Number of thermocouples	T(J,I)		Thermocouple temperatures (K)	
			TVP(J,K)	-	Vapor probe temperatures (K)	
NVTP		Number of vapor probes	V(J)		Test section voltage (V)	
IORF	*	Orifice number to be used for flow calculation	AMP(J)		Test section current (A)	
ICHAN	-	Input channel number where IORF is located	DPORI(J)		Flow orifice pressure drop (kPa)	
HL		Test section heated length (m)	VLHP(J)		Lower hot patch voltage (V)	
	÷		ALHP(J)		Lower hot patch current (A	
AMETAL	*	Cross-sectional area of metal in test section (m ²)	PRES(J)		Test section pressure (MPa)	
AFLOW	-	Cross-sectional flow area in test section (m ²)	PLP(J)		Loop pressure (MPa)	
TID			TLP(J)		Loop fluid temperature (K)	
TID	*	Test section inside diameter (m)	TLHP(J)		Temperature in lower hot patch	
IQRF	-	Qualitative rating factor—num- bered from 1 to 5			(K)	
STRTM		Start time for data reduction	TFCV(J)	*	Temperature of fluid at flow control valve (K).	

All of the input data are then printed.

Tube segment lengths are defined based on the number and location of the operating thermocouples for that test. The upper and lower segment boundary elevations are defined as midway to the adjacent thermocouple, except for the top and bottom segments, where the bottom segment starts at the tube inlet and the top segment extends to the top of the tube. The tube segment associated with each vapor probe is also defined.

K-2. Subroutine QFRONT

The thermocouple quench times, the corresponding quench front elevation, and the resulting quench front velocity are determined in QFRONT for the duration of the experiment. The quench time is defined as that at which the rate of temperature decrease (dT/dt) is maximum once the rate has exceeded 10 K/s. The cooldown rate is calculated by fitting a quadratic curve through the temperatures over a 3-s interval and evaluating the appropriate derivative at the desired time. The elevation and velocity of the bottom-up quench front were calculated as a function of time from the quench time information. The wall temperatures at the time of quench were determined for each thermocouple location. A summary of the quench front information is printed.

K-3. Subroutine TUBEIN

Subroutine TUBEIN defines the inlet conditions to the test section.

The test section flow is found from the orifice pressure differential and the water properties using

$$\dot{m} = COEF \sqrt{\varrho \Delta P}$$
 (K-1)

where

m = mass flow

COEF = orifice coefficient

 ϱ = fluid density (kg/m³)

 ΔP = orifice differential pressure (kPa).

Two different orifices were used, each having three pressure drop transducers with different ranges;

consequently, the proper coefficient was selected for each run. The coefficients are as follows:

Orifice Pressure Drop Transducer Number	Coefficient, COEF				
1	1.453 x 10 ⁻⁴				
2	1.441 x 10 ⁻⁴				
3	1.419 x 10 ⁻⁴				
4	2.400 x 10 ⁻⁵				
5	2.436 x 10 ⁻⁵				
6	2.360 x 10 ⁻⁵				

The subcooled density is found by calling the ASME steam table routines using the measured loop temperature (TE-LOOP) and measured loop pressure (PE-3). The mass flux is calculated by dividing the mass flow rate by the cross-sectional flow area.

The enthalpy of the fluid entering the lower hot patch is found from the steam tables using the loop pressure (PE-3) and the measured temperature at the flow control valve (TE-FCV-1).

The power input to the lower hot patch is calculated from the measured voltage and current; however, during the quasi-steady-state experiments, the temperature of the lower hot patch was maintained at saturation temperature and no net heat transfer to the fluid was assumed. Consequently, the test section inlet conditions were assumed to be the same as those of the inlet to the lower hot patch.

For the steady-state runs, the heat added from the lower hot patch is accounted for as follows

$$Q_{LHP} = A_{LHP} \times V_{LHP}$$
- [0.9(T_{LHP} - 300)] (K-2)

where

QI HP = total power input (W)

ALHP = lower hot patch current (LHP-AMPS) (A)

V_{LHP} = lower hot patch voltage (LHP-VOLTS) (V) T_{LHP} = lower hot patch temperature (TE-LHP-3) (K).

The term in brackets represents the heat loss from the lower hot patch to the environment, as presented in Appendix I. The test section inlet enthalpy is then calculated. A check is made to determine whether the fluid is saturated or subcooled at the test section inlet. If it is subcooled, the inlet temperature is found from the steam tables, using the test section pressure and the calculated inlet enthalpy.

K-4. Subroutine QTUBE

Subroutine QTUBE calculates the power from the test section to the fluid for each tube segment. A simple heat balance on a tube segment yields

$$Q_{gen} - Q_{acon} - Q_{loss} - Q_{conv} = Q_{acc}$$
 (K-3)

where

Qgen = heat generated in tube wall

Qacon = heat into segment via axial

Qloss = heat lost to environment

Q_{conv} = heat transferred to fluid across tube wall via convection

Qacc = heat accumulation in tube wall.

Solving for the convective heat transfer to the fluid,

$$Q_{conv} = Q_{gen} + Q_{acon} - Q_{loss} - Q_{acc}$$
 (K-4)

Each term on the right side of the above equation is evaluated in separate subroutines called from QTUBE.

The inside tube wall temperature (TI) is calculated as

$$TI = T \cdot \left(\frac{1.8 \times 10^{-6} Q_{gen}}{A_{metal} \Delta Z k}\right). \tag{K-5}$$

K-5. Subroutine QG

Subroutine QG calculates the heat generated within each tube wall segment as a result of the voltage applied across the test section.

The total power generated in the tube is the voltage times the current. Because of the location of the voltage taps, an additional voltage drop in the connector was included as part of the reading. Consequently, a voltage correction was made as follows:

$$V_{CORRECTED} = RTS/(RTS + 0.002)$$
 (K-6)

where

RTS =
$$0.02957 * \frac{RREF}{R1000}$$

RREF = tube resistance at average tube temperature

R1000 = tube resistance at 1000 K.

The resistivity of Inconel 625 is included in tabular form as a function of temperature in subroutine INCRES and is found by interpolation between values. The average temperature is found by summing the product of each segment temperature and segment length and then dividing by tube length.

The heat generated in each tube segment is given by

$$Q_{gen} = (VOLT \cdot AMP) (\Delta Z/HL) (R/RREF)$$
(K-7)

where

VOLT = corrected voltage across test section

AMP = current through test section

 ΔZ = segment length

HL = test section heated length

R = Inconel resistivity at temperature of segment

RREF = Inconel resistivity at average tube temperature.

If the tube segment contains one of the vapor probes, and if index "A" of input VARIABLE LINDX is set to 1, the heat generation for that segment is reduced by the factor

 $(1 - 0.0032/\Delta Z)$.

This assumes no electrical resistance over the length where the probe is located.

K-6. Subroutine QC

Subroutine QC calculates the net change in energy of the tube segment as a result of conduction heat transfer to or from adjacent tube segments. The contribution to the convective flux from axial conduction is very small, except at the quench front, and even there it only amounts to a redistribution of the energy deposition to the fluid. Consequently, the axial conduction term was not used in the calculations of convective heat flux. However, the values were calculated, printed, and stored on tape, so that the magnitude of this term, relative to the convective term during the quenching transient, would be known.

The net transfer of heat to a segment ΔZ in length is given by

$$Q_{cond} = A_{metal} \Delta Z k \frac{\partial^2 T}{\partial Z^2}$$
 (K-8)

where

A_{metal} = cross-sectional area of the metal normal to heat flow

 ΔZ = segment length

k = thermal conductivity.

For the tube segments away from the quench front, the second derivative is determined by fitting three points at a time with a quadratic fit and evaluating the first and second derivatives.

In the region of the quench front, it is assumed that the whole temperature field moves at the same speed as the quench front propagates, allowing the following formulation of the second derivative:

$$\frac{\partial^2 \mathbf{T}}{\partial Z^2} = \frac{1}{\mathbf{U}^2} \frac{\partial^2 \mathbf{T}}{\partial t^2} \tag{K-9}$$

where

U = quench front velocity,

and the time derivatives were obtained as outlined in subroutine SETUP.

K-7. Subroutine QL

Subroutine QL calculates the losses to the environment, if so selected by the user. There are two kinds of ambient losses considered in this subroutine; i.e., average losses from the whole test section and point losses, the magnitude and location of which are input by the user.

The heat loss algorithm included in the program actually applies only to steady state and was generally not used during analysis of the quasi-steady-state experiments.

$$Q_{loss} = -2.0852(T - 948.66) \pi OD \Delta Z$$
. (K-10)

This loss is used if index "C" of input variable LINDX is not zero.

Specific point losses are calculated if index "B" of variable LINDX is greater than zero. As many as five point losses can be accommodated. The user inputs the location and size of the loss and also what fraction of the steady-state losses are used for each loss. These losses were input to represent where brackets were attached to the tube and places where the insulation was limited for one reason or another. See Section 4.3 of the main text and Appendix I for a discussion of how the heat losses during the quasisteady-state runs are represented.

K-8. Subroutine QA

Subroutine QA computes the net energy to or from the test section segment as the tube increases or decreases in temperature. The most dramatic effect occurs, of course, in the region of the quench front. There is also significant energy release due to the general cooldown of the test section.

The heat accumulation term is given by

$$Q_{acc} = A_{metal} \Delta Z \varrho C dT/dt \qquad (K-11)$$

with dT/dt evaluated as described for Subroutine SETUP.

The above formulation works well, except for the tube segment where the quench front is located. The initial assumption in this whole analysis was that each tube segment was adequately represented by the single thermocouple within that segment. Under that assumption, the whole segment quenches almost instantaneously, based on the thermocouple dT/dt. This results in a huge heat flux spike at the time each thermocouple shows a quench, separated by periods when the accumulation term is negligible. In reality, there is a fairly uniform quenching of the tube as the front moves up or down. In order to eliminate the spikes whenever the quench front is in the segment being considered, the accumulation term is formulated as follows:

$$Q_{acc} = A_{metal}U\Delta t \varrho C(T_{PRE} - T_{OUT})$$
 (K-12)
where

U = quench front velocity

Δt = analysis time step (1 s)

TPRE = temperature of the segment prior to quenching

T_{OUT} = segment temperature at the time the quench front leaves the tube segment.

This technique smoothed the accumulation term and made for a more realistic analysis. However, it was applied to only the bottom-up quench. Consequently, when a top-down quench occurred, there were still large calculated heat flux spikes in the top few segments. These influenced only the downstream volumes and do not affect any calculated results.

K-9. Subroutine BAL

Subroutine BAL calculates the local fluid conditions at each thermocouple and vapor probe location, based on the inlet conditions and the heat added to the fluid from the tube. At the thermocouple locations, the equilibrium quality and void fraction are calculated as

$$XE = \frac{h - h_f}{h_{fg}}$$
 (K-13)

VOIDE =
$$\frac{XE}{XE + \frac{\varrho_g}{\varrho_f} (1 - XE)}$$
 (K-14)

where

h = specific enthalpy of fluid

hf = saturated liquid specific enthalpy

h_{fg} = heat of vaporization

 ϱ_g = saturated vapor density

ef = saturated liquid density.

At the location of the vapor temperature probes, it is possible to calculate the actual quality as well. The actual void fraction is also calculated, assuming no slip between the liquid and vapor. The following equations are used:

$$XA = \frac{h_e - h_f}{h_v - h_f}$$
 (K-15)

$$VOID = \frac{XA}{XA + \frac{\varrho_{V}}{\varrho_{f}}(1 - XA)}$$
 (K-16)

where

h_e = specific enthalpy of fluid obtained from energy balance

h_v = specific enthalpy of vapor obtained from steam tables, using pressure and measured vapor temperature

e_V = density of vapor obtained from steam tables, using pressure and measured vapor temperature.

K-10. Utility Subroutines

The following subroutines were used to support the previously described major subroutines.

K-10.1 FIT. This subroutine calculates the coefficients A, B, and C and the first and second derivatives for a quadratic fit through any three points

where

$$Y = A + BX + CX^{2}$$

$$\frac{dY}{dX} = B + 2CX$$

$$\frac{d^2Y}{dX^2} = 2C.$$

K-10.2 INCRES. This subroutine calculates the electrical resistivity of Inconel 625 as a function of temperature by interpolating the following table:

R (ohm/cir mill/ft)
780.0
794.0
806.0
812.0
818.0
830.0
830.0
824.0
818.0
812.0

K-10.3 TUBPROP. This subroutine contains equations for the physical properties of Inconel 625 as a function of temperature.

Thermoconductivity:
$$k = \frac{0.2 \text{ T} + 50}{12.0} \text{ W/m} \cdot \text{K}$$

Density:
$$\varrho = 8440.0 \text{ kg/m}^3$$

Heat Capacity:
$$C = 0.24 \text{ T} + 344.0 \text{ J/kg} \cdot \text{K}$$
.

APPENDIX L TRAC-PD2/MOD1 HEAT TRANSFER LOGIC

APPENDIX L TRAC-PD2/MOD1 HEAT TRANSFER LOGIC^{L-1}

The liquid heat transfer coefficient (HTC) is given by

$$h_{L} = h_{r} \left(\frac{T_{w} - T_{s}}{T_{w} - T_{L}} \right) + h_{df}$$
 (L-1)

where

$$h_{r} = (1 - \alpha) \sigma \epsilon \left(\frac{T_{w}^{4} - T_{s}^{4}}{T_{w} - T_{s}} \right),$$

 σ is the Stefan-Boltzmann constant, and ε is the wall emissivity. The liquid absorptivity is 1.0.

The dispersed flow HTC, h_{df} , uses the Forslund and Rohsenow equation, L^{-2} modified by multiplying $(1 - \alpha)$ by the fraction of liquid entrained, E, and is set equal to zero if $(1 - \alpha)E > 0.05$.

$$h_{df} = 0.2 c_1 [(1 - \alpha)E]^{0.6667} BRAC^{0.25}$$

$$\left(\frac{T_w - T_s}{T_w - T_L}\right), \qquad (L-2)$$

where

$$c_1 = 1.2760$$

BRAC =
$$\frac{g \varrho_L \varrho_g h'_L g^{3}}{(T_w - T_s) \mu_g d_{drop}}$$

$$d_{drop} = \frac{We\sigma}{\varrho_g (V_g - V_L)^2}$$

$$We = 4.0. (L-3)$$

The droplet diameter is restricted to the range,

$$1.0 \times 10^{-4} \le d_{drop} \le 3.0 \times 10^{-3}$$
.

The fraction of liquid entrained is found in the following manner,

$$E = 0$$
, if $|V_g| \le V_E$,

Or

$$E = 1.0 - \exp 0.23[-(|V_g| - V_E)]$$
,
if $|V_g| > V_E$, (L-4)

where the entrainment velocity is

$$V_{E} = 3.65 \left[\frac{(\varrho_{L} - \varrho_{g})\sigma}{\varrho_{g}^{2}} \right]^{1/4},$$
 (L-5)

and E is restricted to values between 0.07 and 1.0.

The vapor heat transfer coefficient is given by

$$h_g = \max(h_{fbb}, h_{nc}, h_{DR}) . \tag{L-6}$$

The Bromley film boiling HTC is hfbb, L-3

$$h_{fbb} = 0.62 \left[\frac{\varrho_g k_g^3 (\varrho_L - \varrho_g) g h'_L g}{\mu_g (T_w - T_s) \lambda} \right]^{1/4}$$
, (L-7)

where the characteristic length, \(\lambda\), is

$$\lambda = 2\pi \left[\frac{\sigma}{g(\varrho_{L} - \varrho_{g})} \right]^{1/2} . \tag{L-8}$$

The latent heat of vaporization is modified, as suggested in Reference L-4,

$$h'_{Lg} = h_{Lg} + 0.5 C_g (T_w - T_s)$$
 (L-9)

The turbulent natural convection equation L-5 used in this heat-transfer regime is

$$h_{nc} = 0.13 \text{ kg} \left(\frac{e_g^2 \text{g} |T_w - T_g|}{\mu^2 T_g} \right)^{0.333} \text{Pr}_g^{0.333}.$$

(L-10)

The forced convection equation is based on Dougall and Rohsenow's modification L-6 to the Dittus-Boelter equation L-5:

$$h_{fc} = 0.023 \frac{k_g}{D_h} \left(\frac{\varrho_g [c | V_g] + (1 - a) |V_L|}{\mu_g} \right)^{0.8}$$

$$\left(\frac{\mu_g C_g}{L} \right)^{0.4}, \qquad (L-11)$$

where the Reynolds number is modified to reflect the volumetric flow rate of the two-phase mixture.

As in the previous heat-transfer regimes, linear interpolation is used for $\alpha > \alpha_C$.

The total heat flux q is given by

$$q = h_L(T_{wall} - T_{sat})$$

$$+ h_g(T_{wall} - T_{vapor}) . (L-12)$$

References

- L-1. TRAC-PD2, An Advanced Best-Estimate Computer Program for Pressurized Water Reactor Loss-of-Coolant Accident Analysis, Draft, Los Alamos National Laboratory.
- L-2. R. P. Forslund and W. M. Rohsenow, "Dispersed Flow Film Boiling," *Journal of Heat Transfer*, 90, November 1968, pp. 399-407.
- L-3. L. A. Bromley, "Heat Transfer in Stable Film Boiling," Chemical Engineering Progress, 46, May 1950, pp. 221-227.
- L-4. S. S. Kutateladze, "Heat Transfer During Film Boiling," in *Heat Transfer in Condensation and Boiling*, Atomic Energy Commission Report AEC-TR-3770, 1952.
- L-5. W. H. McAdams, Heat Transmission, Third Edition, New York: McGraw-Hill Company, 1954.
- L-6. R. S. Dougall and W. M. Rohsenow, Film Boiling on the Inside of Vertical Tubes With Upward Flow of the Fluid at Low Qualities, Massachusetts Institute of Technology Mechanical Engineering Report 9079-26 (1963).

APPENDIX M RESIDUAL PLOTS

APPENDIX M RESIDUAL PLOTS

Residual plots for the following heat transfer correlations for the listed variables are presented on the microfiche attached to the inside back cover of this report.

Correlation	Variables	
Dittus-Boelter	Pressure	
Dougall-Rohsenow (saturated)	Mass flux	
Dougall-Rohsenow (superheated)	Distance from CHF	
CSO	Wall temperature	
Groeneveld 5.7	Heat flux	
Condie-Bengston IV	Vapor temperature	
TRAC-PD2/MOD1 package	Equilibrium quality	
	Actual quality	
	Experiment run number	

Figures M-1 though M-6 are residual plots for the Webb vapor generation correlation. Figures M-7 through M-12 are residual plots for the modified Saha vapor generation correlation.

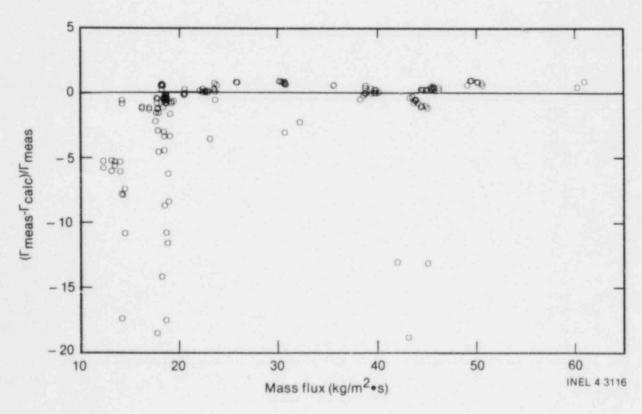


Figure M-1. Mass flux residual for Webb correlation.

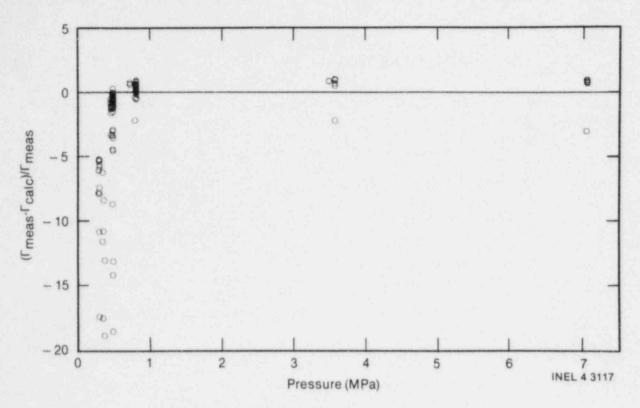


Figure M-2. Pressure residual for Webb correlation.

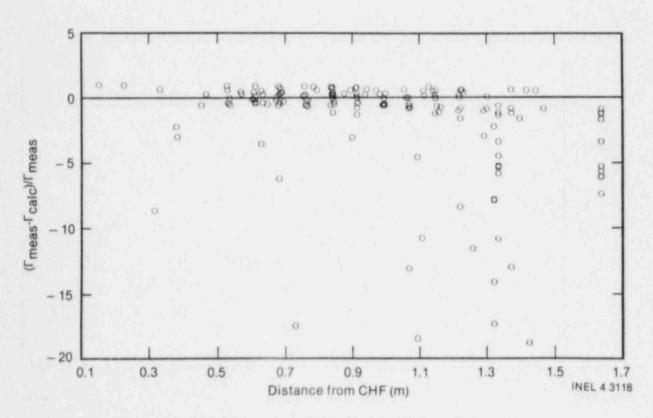


Figure M-3. Distance from CHF residual for Webb correlation.

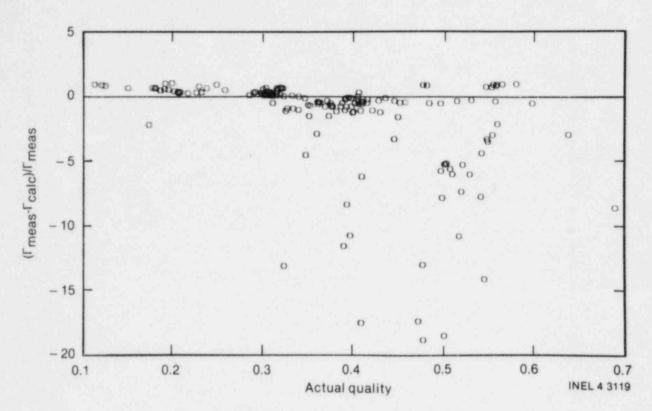


Figure M-4. Actual quality residual for Webb correlation.

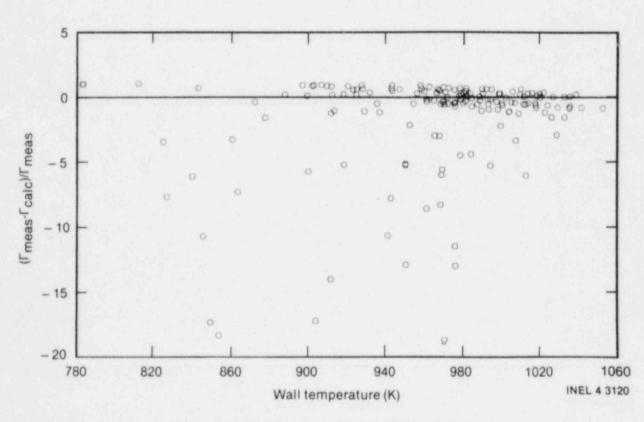


Figure M-5. Wall temperature residual for Webb correlation.

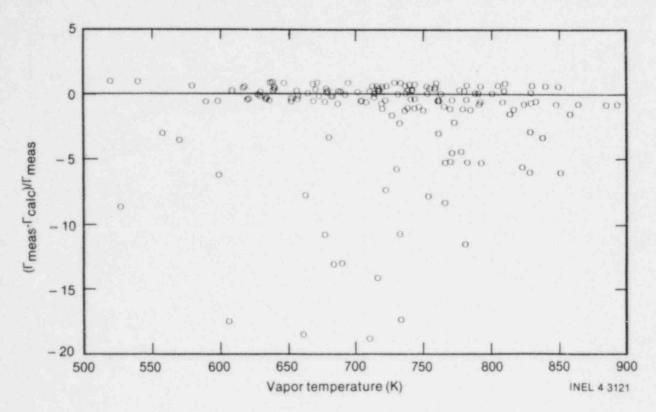


Figure M-6. Vapor temperature residual for Webb correlation.

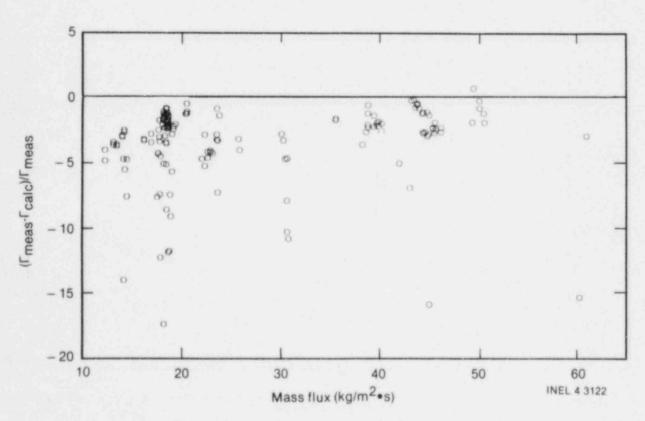


Figure M-7. Mass flux residual for modified Saha correlation.

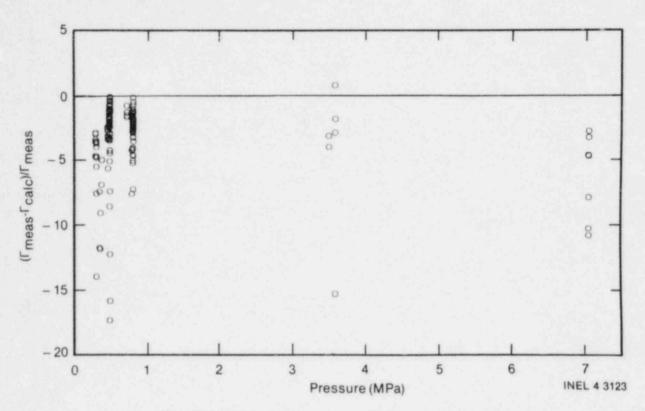


Figure M-8. Pressure residual for modified Saha correlation.

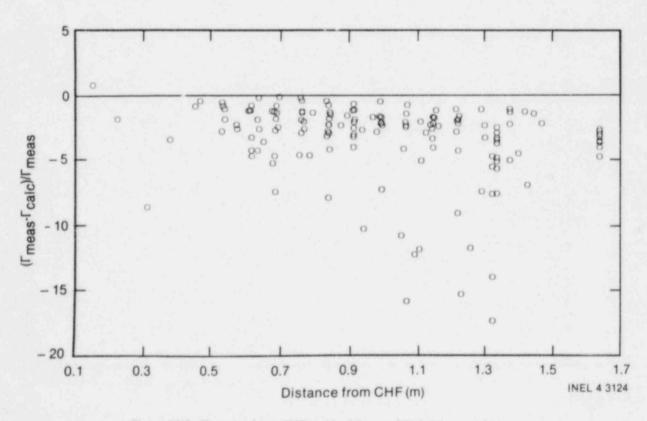


Figure M-9. Distance from CHF residual for modified Saha correlation.

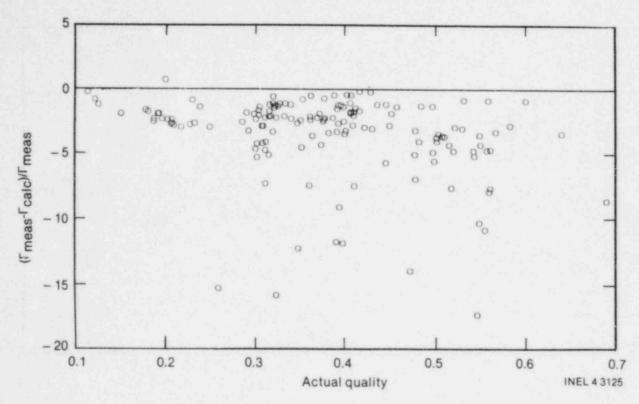


Figure M-10. Actual quality residual for modified Saha correlation.

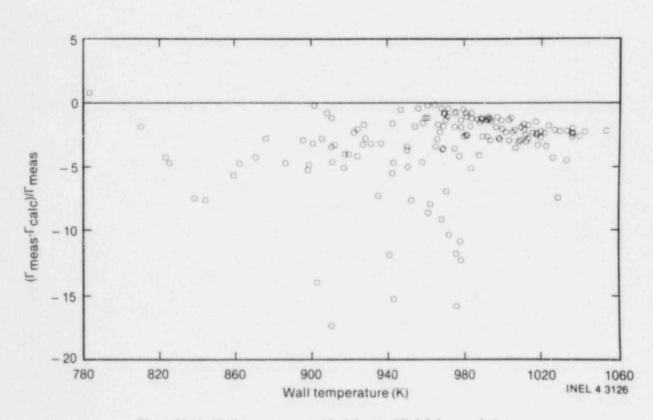


Figure M-11. Wall temperature residual for modified Saha correlation.

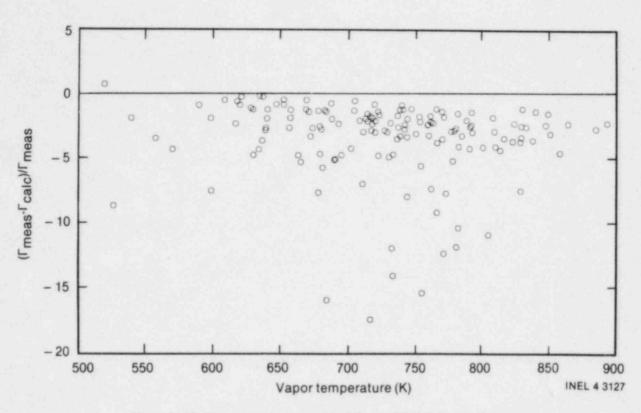


Figure M-12. Vapor temperature residual for modified Saha correlation.

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12 SUPPLEMENTARY NOTES		

Forced convective, postcritical-heat-flux heat transfer experiments with water flowing upward in a vertical tube have been conducted at the Idaho National Engineering Laboratory. Thermodynamic nonequilibrium in the form of superheated vapor temperatures was measured at a maximum of three different axial levels. Steady-state experiments were conducted at pressures of 0.2 to 0.7 MPa, mass fluxes of 12 to 24 kg/m²·s, heat fluxes of 7.7 to 27.5 kW/m², and test section inlet qualities of 38 to 64%. Quasi-steady-state (slow moving quench front) experiments were conducted at pressures of 0.4 to 7 MPa, mass fluxes of 12 to 70 kg/m²·s, heat fluxes of 8 to 225 kW/m², and test section inlet qualities of -7 to 47%. The multiple probe data and the data taken above 0.4 MPa are new data in parameter ranges not previously obtained. Comparison of the data with current vapor generation models and wall heat transfer models yielded unsatisfactory results. This is attributed to the effects of nonequilibrium, quench front quality, and distance from the quench front, which are factors not included in the current models compared.

13 ABSTRACT (200 words or less)

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