TEST REPORT

FOR

FULL FLOW TESTING OF 16, 18, AND 20-INCH

MAIN STEAM SAFETY VALVE VENT STACKS

FOR

YANKEE ATOMIC ELECTRIC COMPANY

1671 Worcester Road
Framingham, Mass. 01701

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TEST REPORT

WYLE LABORATORIES SCIENTIFIC SERVICES & SYSTEMS GROUP

Yankee Atomic Electric Company
1671 Worcester Road
Framingham, Mass. 01701

REPORT NO. 47447-0
OUR JOB NO. 47447
YOUR P. O. NO. 104359
CONTRACT N/A
PAGE 1 of 18 PAGE REPORT
DATE January 10, 1985

1.0 PURPOSE

The purpose of this report is to present the test procedure used and the test results obtained during a test program conducted to determine the design adequacy of the main steam safety valve vent stacks installed at the Seabrook Station.

2.0 REFERENCES

2.1 Wyle Laboratories' Quotation No. 544/2044-1/CP.

2.2 Wyle Laboratories' Test Plan No. 47447, Revision A.

2.3 Yankee Atomic Electric Company Purchase Order No. 104359

2.4 DRAVCO Corporation Sketch No. E-2936-IC-14.

2.5 DRAVCO Corporation Sketch No. E-2937-IC-639.

2.6 American National Standard ANSI/ASME N45.2-1977, "Quality Assurance Program Requirements for Nuclear Facilities."

3.0 TEST EQUIPMENT AND INSTRUMENTATION

All instrumentation, measuring, and test equipment used in the performance of this test program were calibrated in accordance with Wyle Laboratories' Quality Assurance Program which complies with the requirements of Military Specification MIL-STD-45662. Standards used in performing all calibrations are traceable to the National Bureau of Standards by report number and date. When no national standards exist, the standards are traceable to international standards or the basis for calibration is otherwise documented.

The Instrumentation Equipment Sheets are presented in Appendix I.

STATE OF ALABAMA
COUNTY OF MADISON } ss.

W. Dysart, being duly sworn, deposes and says: The information contained in this report is the result of complete and carefully conducted tests and is to the best of his knowledge true and correct in all respects.

W Dysart

SUBSCRIBED and sworn to before me this 10th day of Jan., 1985

SEAL Patricia A. Phillips
Notary Public in and for the State of Alabama at large.

My Commission expires Jan. 30, 1985

TEST BY NUCLEAR PLANT SERVICES

PROJ. ENGINEER L J Millsaps 1-10-85
L. J. Millsaps

WYLE Q. A. G W Hight 1/12/85 KJ 1-11-85
G. W. Hight

4.0 PERSONNEL CERTIFICATION

Wyle certifies that all personnel assigned to the steam valve facility are qualified for the tasks assigned. Personnel certification is achieved through personnel education levels, vocational training, and practical experience as outlined in ANSI-N45.2.6.

5.0 TEST SPECIMEN DESCRIPTION

5.1 The initial test specimen was fabricated in accordance with the configuration shown on References 2.4 and 2.5. The tailpipe was 10-inch Schedule 80 pipe and fittings, and the vent stack was 16-inch Schedule 30 pipe and fittings. This duplicated the vent stack presently installed in the plant.

5.2 A second vent stack, fabricated from 18-inch Schedule 10 pipe and fittings, was fabricated as a backup test specimen should the 16-inch vent stack prove to be inadequate.

5.3 A third vent stack was subsequently fabricated from 20-inch Schedule 20 pipe and fittings.

5.4 The fourth configuration used the 20-inch vent stack with the elbow removed. The 10-inch tailpipe was replaced with another section of 10-inch pipe and a 90° elbow which discharged into the vent stack.

6.0 TESTS

6.1 <u>16-Inch Vent Stack</u>

The 16-inch vent stack, 10-inch tailpipe, and 24-inch drip pan were fabricated and assembled in accordance with References 2.4 and 2.5, and instrumented as shown in Figure 1. A 6R10 Style HA 75FN Crosby main steam safety valve was used to supply steam to the vent stack.

The system was pressurized with saturated steam and the valve was allowed to heat for a period of time. Since the valve was not being tested, no specific stabilization requirements were used. The data from the initial actuation of the valve indicated that it only stroked 0.56 inches. Full stroke should be approximately one inch. The instrumentation and recording equipment was checked and the LVDT calibration verified. No problems were found.

The valve was actuated a second time with the same results. It was decided to remove the valve (Tag No. 1-MS-V53) and install a second valve (Tag No. 1-MS-V25). While the second valve was being installed, the valve manufacturer was contacted and apprised of the problem. It was recommended that the guide (upper) ring be lowered 150 notches, which would place it at the zero position.

6.0 TESTS (Continued)

6.1 16-Inch Vent Stack (Continued)

The second valve was allowed to heat and then actuated. The stroke was 0.52 inches. Therefore, the upper ring was lowered 150 notches and the valve actuated a second time. The stroke was 1.04 inches. Visual observation showed that there was significant blowback from the vent pipe. Some aspiration occurred when the valve disc dropped to the one-half open position. The valve was then adjusted and actuated at set pressures of 1238, 1220, 1203, and 1185 psig ± 1 percent. In each case, the valve stroked fully; however, blowback from the vent pipe was observed. A video tape of the testing was furnished to the customer.

6.2 18-Inch Vent Stack

The second vent stack (18-inch) was then installed and the test repeated. In each case, the valve stroked fully; however, blowback from the vent stack was noted.

6.3 20-Inch Vent Stack

It was then decided to test the 20-inch vent stack described in Paragraph 5.3. The test results were essentially the same. Blowback appeared to be less, but was still unacceptable.

6.4 20-Inch Vent Stack with 90° Elbow

The 20-inch vent stack configuration was then modified as shown in Figure 2 and the tests repeated. The test results were the same. The first safety valve was installed in the system to determine if any valve problems existed. The results were the same after the upper ring was adjusted.

7.0 DATA

The tabulated data from 5 test series are shown in Tables I through V. The actual X-Y plots and oscillograph recordings will be stored in Wyle's contract files.

Photographs of the 16-inch vent stack test setup are shown in Photographs 1, 2 and 3.

8.0 DISPOSITION

The test program was placed "on hold" by the customer. The 20-inch vent stack with a 90° elbow was left in place. The safety valve was covered with polyethylene and the other valve was placed in storage.

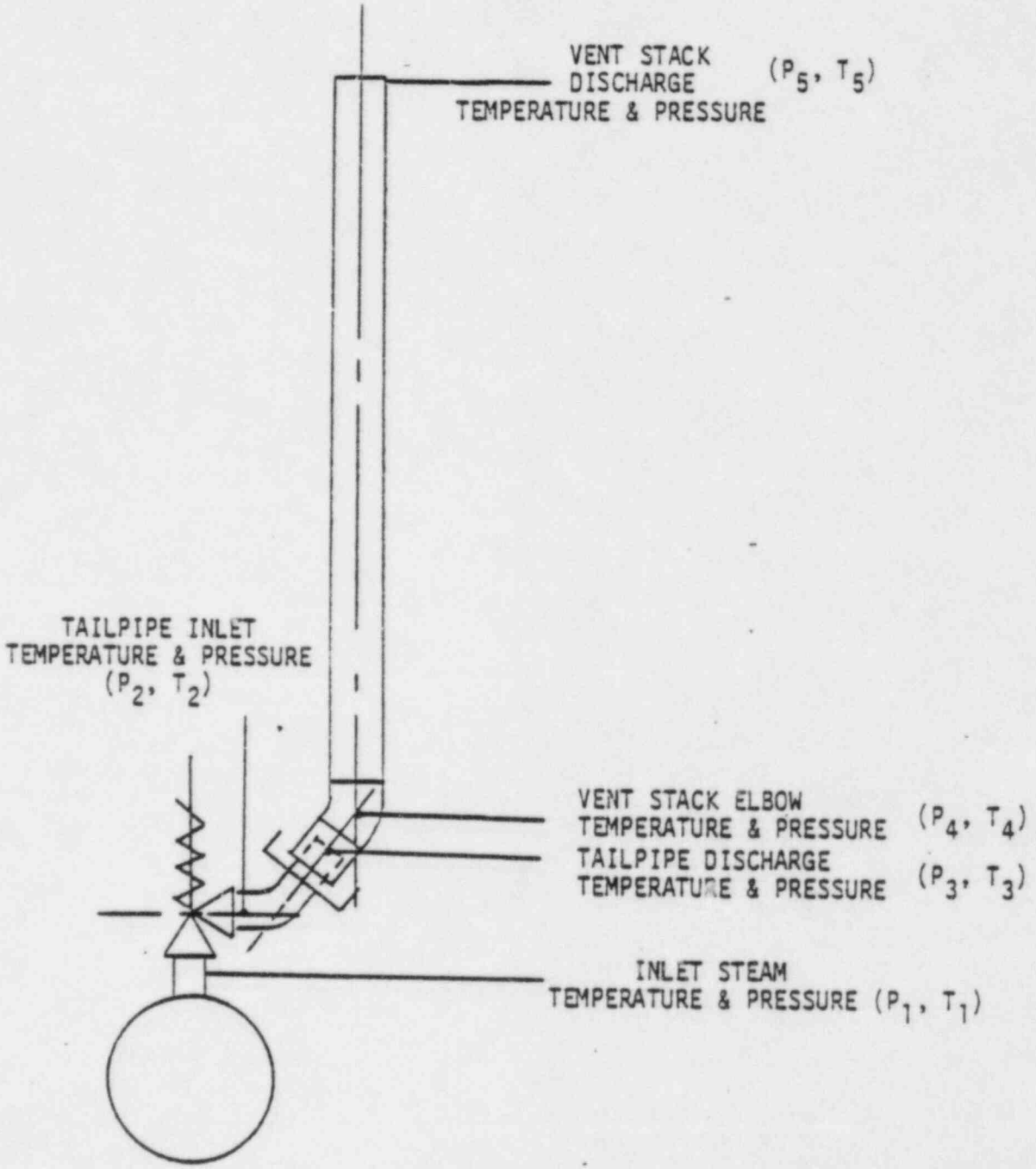


FIGURE 1. INSTRUMENTATION LOCATIONS (16, 18, AND 20-INCH VENT STACKS)

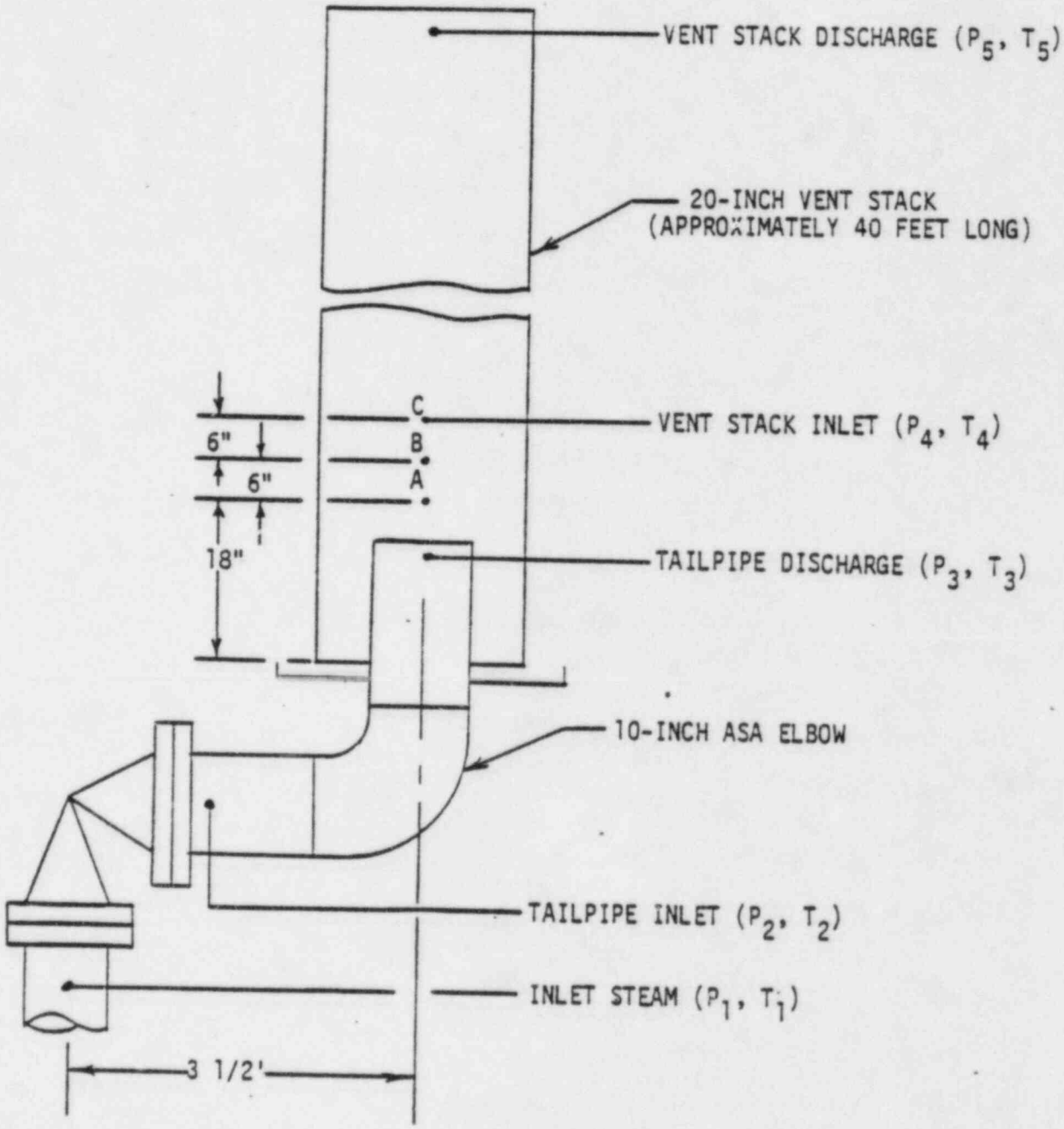


FIGURE 2. INSTRUMENTATION LOCATIONS (90° ELBOW/20-INCH VENT STACK)

TABLE I

TEST DATA SHEET, YANKEE ATOMIC J/N 47447, OCTOBER 17, 1984

VALVE TAG NUMBER 1-MS-V25

16-INCH VENT STACK

RUN NO.	TIME	SET PRESS.	VALVE TEMP. (^{o}F)			PRESSURE (PSIG)				TEMPERATURE (^{o}F)				LIFT (IN)	RESEAT PRESS.	MAX. PRESS.	% BLOW-DOWN	% ACCUM.
			STEAM	BODY	SPRING	P_2	P_3	P_4	P_5	T_2	T_3	T_4	T_5					
1	1328	1255	562	262	83	<100	<100	28	12	295	285	280	235	0.52	1181	1300	5.9	3.5
2	1404	1241	561	278	97	146	145	38	28	330	335	290	270	1.04	1161	1247	6.4	0.5
3	1441	1233	561	286	115	163	140	44	40	340	345	285	275	1.06	1156	1255	6.2	1.8
4	1523	1261	564	285	130	170	145	44	39	335	350	285	275	1.08	1176	1274	6.7	1.0
5	1558	1221	556	295	138	167	138	43	37	335	345	285	270	1.06	1140	1231	6.6	0.8
6	1619	1200	547	295	147	170	140	42	37	330	330	285	270	1.04	1125	1215	6.3	1.2
7	1635	1185	560	291	154	172	137	43	37	330	330	285	270	1.04	1112	1202	6.2	1.4

NOTES: 1) Moved upper ring down 150 notches after Run No. 1.
2) Adjusted 1 3/4 flats clockwise after Run No. 3.
3) Adjusted 2 1/2 flats counterclockwise after Run No. 4.
4) Adjusted 1 flat counterclockwise after Run No. 5 and No. 6.

TABLE II

TEST DATA SHEET, YANKEE ATOMIC J/N 47447, OCTOBER 19, 1984

VALVE TAG NUMBER 1-MS-V25

18-INCH VENT STACK

RUN NO.	TIME	SET PRESS.	VALVE TEMP. (^{o}F)			PRESSURE (PSIG)				TEMPERATURE (^{o}F)				LIFT (IN)	RESEAT PRESS.	MAX. PRESS.	% BLOW-DOWN	% ACCUM.
			STEAM	BODY	SPRING	P_2	P_3	P_4	P_5	T_2	T_3	T_4	T_5					
1	0915	1198	557	245	107	184	140	39	32	345	335	300	250	1.16	1116	1225	6.8	2.2
2	0935	1194	555	264	119	188	140	54	33	350	330	300	250	1.12	1116	1226	6.5	2.6
3	0957	1207	559	271	130	188	138	63	33	345	330	300	250	1.18	1125	1232	6.8	2.0
4	1011	1205	557	270	129	193	142	67	32	350	320	300	250	1.12	1126	1256	6.5	4.1
5	1044	1228	561	290	118	191	140	64	32	345	325	310	245	1.18	1139	1240	7.2	0.96
6	1057	1216	558	288	115	194	142	67	32	350	330	305	250	1.12	1134	1250	6.7	2.7
7	1118	1238	563	279	129	196	145	70	32	345	325	300	250	1.16	1148	1254	7.3	1.3
8	1135	1235	563	290	139	194	146	68	32	345	320	300	250	1.12	1150	1266	6.9	2.4
9	1206	1259	566	288	145	198	150	70	30	345	330	300	250	1.22	1164	1279	7.5	1.6
10	1217	1250	563	292	156	196	146	69	32	350	335	300	250	1.14	1162	1276	7.0	2.0

NOTES: 1) Adjusted 1 flat clockwise after Run No. 2.
2) Adjusted 1 flat clockwise after Run No. 4. Verified calibration of P4.
3) Adjusted 1 flat clockwise after Run No. 6.
4) Adjusted 1 1/4 flats clockwise after Run No. 8.

TABLE III

TEST DATA SHEET, YANKEE ATOMIC J/N 47447, NOVEMBER 28, 1984

VALVE TAG NUMBER 1-MS-V25

20-INCH VENT STACK

RUN NO.	TIME	SET PRESS.	VALVE TEMP. (^{o}F)			PRESSURE (PSIG)				TEMPERATURE (^{o}F)				LIFT (IN)	RESEAT PRESS.	MAX. PRESS.	% BLOW-DOWN	% ACCUM.
			STEAM	BODY	SPRING	P_2	P_3	P_4	P_5	T_2	T_3	T_4	T_5					
1	1210	1268	553	306	57	166	145	40	12	355	315	265	240	1.12	1176	1274	7.2	0.4
2	1236	1265	557	321	40	161	147	41	12	370	320	270	243	1.16	1176	1279	7.0	1.1
3	1338	1251	558	313	51	159	137	41	12	370	N/D	292	242	1.16	1162	1270	7.1	1.5
4	1415	1232	559	300	104	158	145	41	12	368	330	268	242	1.12	1145	1257	7.1	1.9
5	1444	1214	557	306	118	157	143	40	13	370	325	270	242	1.14	1130	1247	6.9	2.6

NOTES: 1) Adjusted 1/2 flat counterclockwise after Run No. 3.
2) Adjusted 1 flat counterclockwise after Run No. 4.

TABLE IV

TEST DATA SHEET, YANKEE ATOMIC J/N 47447, NOVEMBER 30, 1984

VALVE TAG NUMBER 1-MS-V25

20-INCH VENT STACK (90° ELBOW)

RUN NO.	TIME	SET PRESS.	VALVE TEMP. (°F)			PRESSURE (PSIG)				TEMPERATURE (°F)				LIFT (IN)	RESEAT PRESS.	MAX. PRESS.	% BLOW-DOWN	% ACCUM.
			STEAM	BODY	SPRING	P_2	P_3	P_4	P_5	T_2	T_3	T_4	T_5					
1	1025	1225	555	248	82	164	149	42	10	360	348	248	232	1.14	1137	1264	7.2	3.1
2	1109	1220	558	248	103	164	151	42	10	362	355	248	232	1.10	1130	1264	7.4	3.5
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	1153	1195	557	278	132	152	137	43	10	355	335	235	228	1.06	1126	1203	5.8	0.7
5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	1342	1200	556	305	160	154	131	4	10	358	330	179	230	1.1	1125	1221	6.2	1.7

NOTES: 1) P_4 in "A" position for Runs 1-5, moved to "C" position for Run 6.
2) Removed drip pan for Runs 3-6.
3) For Runs 3 and 5, facility valve did not open. No accumulation was obtained.

TABLE V

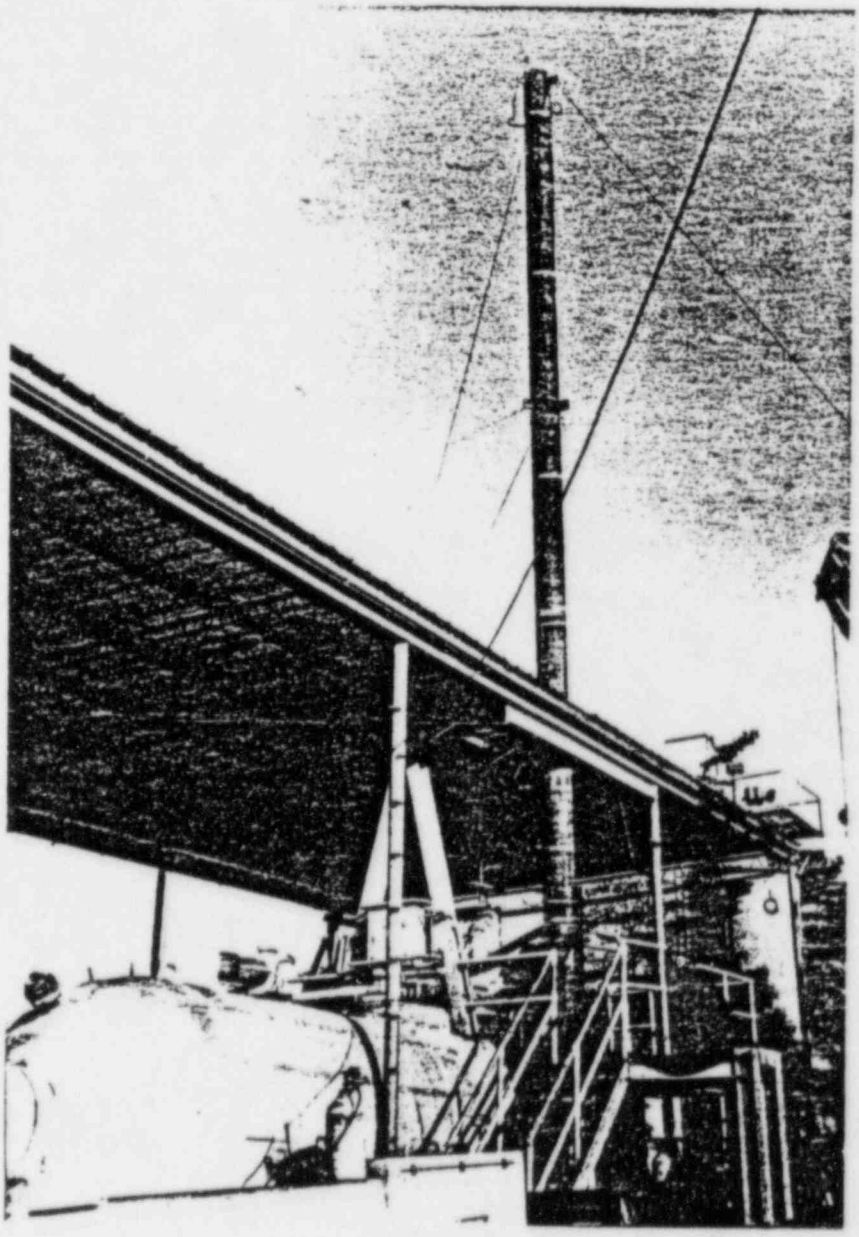
TEST DATA SHEET, YANKEE ATOMIC J/N 47447, DECEMBER 1, 1984

VALVE TAG NUMBER 1-MS-V53

20-INCH VENT STACK (90° ELBOW)

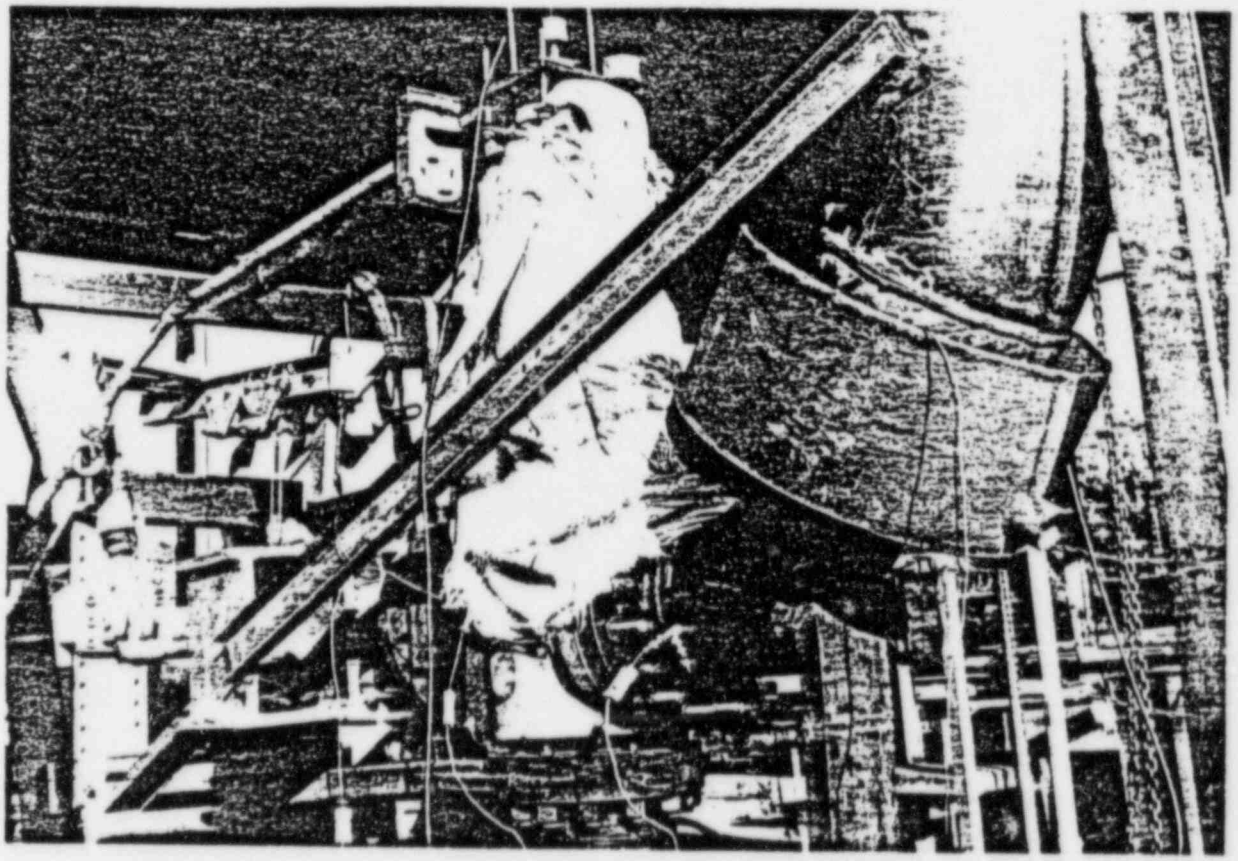
RUN NO.	TIME	SET PRESS.	VALVE TEMP. (°F)			PRESSURE (PSIG)				TEMPERATURE (°F)				LIFT (IN)	RESEAT PRESS.	MAX. PRESS.	% BLOW-DOWN	% ACCUM.
			STEAM	BODY	SPRING	P_2	P_3	P_4	P_5	T_2	T_3	T_4	T_5					
1	1014	1237	560	279	49	186	154	6	10	362	370	180	225	1.10	1160	>1325	6.2	>6.6
2	1027	1243	555	269	33	84	63	-3	-2	310	290	200	200	.050	1158	1289	6.8	3.7
3	1105	1234	562	285	55	176	154	N/D	10	360	335	240	228	1.10	1143	1258	7.4	1.9

NOTES: 1) P_4 at position "C" for Runs No. 1 and No. 2. Only achieved half lift on Run No. 2.
2) P_4 moved to position "A" for Run No. 3. P_4 malfunctioned. Upper ring moved down 150 notches to zero position.



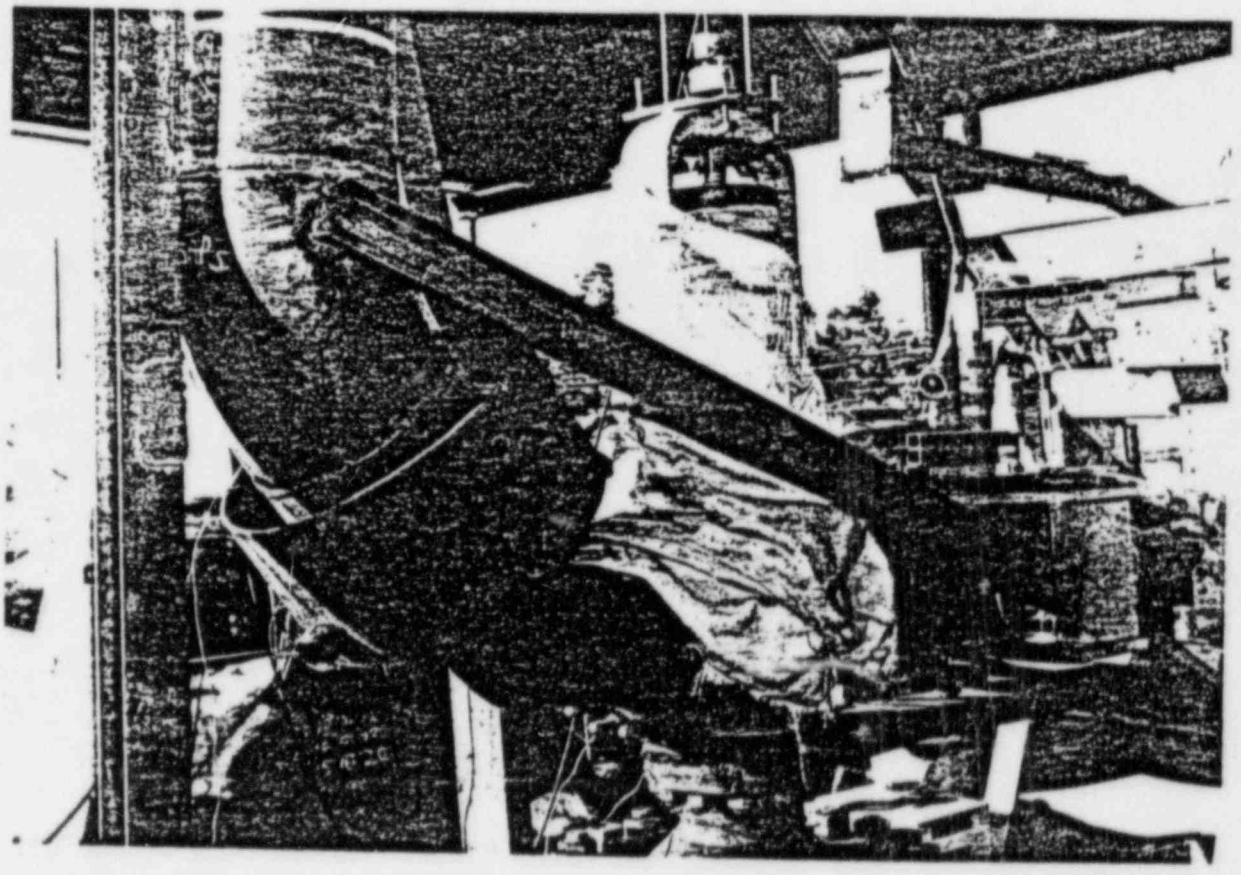
PHOTOGRAPH NO. 1

OVERALL VIEW, 16-INCH VENT STACK



PHOTOGRAPH NO. 2

SAFETY VALVE, TAILPIPE, DRIP PAN, & ELBOWS



PHOTOGRAPH NO. 3

SAFETY VALVE, TAILPIPE, DRIP PAN, & ELBOWS

APPENDIX I

INSTRUMENTATION EQUIPMENT SHEETS

INSTRUMENTATION EQUIPMENT SHEET

Date 11-27-84 Job No. 47447 Test Area HIGH FLOW

Technician D.Webb Customer YANKEE ATOMIC Type Test VENT STACK

No.	Instrument	Manufacturer	Model No.	Serial No.	Wyle or Gov't No.	Range	Accuracy	Calibration On	Calibration Due
1	O-GRAPH	BELL & HOWELL	HR 212	NA	100703	DC-5 KHZ	MFG SPEC	10-10-84	4-10-85
2	GALVO-AMP	HONEYWELL	11T	NA	0392	GAIN 10:1	±2%	7-9-84	1-9-85
3	GALVO-AMP	HONEYWELL	117	NA	95190	GAIN 10:1	±2%	8-22-84	2-22-85
4	MULTIMETER	KEITHLEY	178	NA	92680	MULTIPLE	MFG SPEC	8-10-84	2-10-85
5	FILTER	ROCKLAND	852	NA	3148	0-10KO.1MHZ	±2%	11-27-84	5-27-85
6	FILTER	ROCKLAND	852	NA	100414	0-10KO.1MHZ	±2%	6-8-84	12-8-84
7	X-Y PLOTTER	H-P	7046A	NA	96318	.25MV TO 5VDC/CM	±.2%	11-12-84	1-12-85
8	VOLTAGE CURRENT SOURCE	DIGITEC	3110	NA	100498	0-100VDC	MFG SPEC	7-12-84	1-12-85
9	PRESSURE GUAGE	HEISE	710A	NA	100272	0-1500PSI	±.1%	10-8-84	4-8-85
10	DATA LOGGER	ACUREX	A901	NA	11209	MULTIPLE	MFG SPEC	8-20-84	2-20-85
11	THERMOCOUPLE CONDITIONER	DAYTRONIC	9110AK	NA	100415	-300 F° TO +2300°F	MFG SPES	4-16-84	4-16-85
12	DEADWEIGHT TESTER	AMETEK	TQ20	NA	92564	0-2000PSI	±.03%	10-11-84	10-11-86
13	SIGNAL CONDITIONER	VISHAY	2120	NA	3157	0-12VDC	MFG SPEC	9-14-84	12-14-84
14	SIGNAL CONDITIONER	VISHAY	2120	NA	3158	0-12VDC	MFG SPEC	9-14-84	12-14-84
15	POWER SUPPLY	VISHAY	2110	NA	11052	0-12VDC	±.1%	9-14-84	12-14-84
16	SIGNAL CONDITIONER	VISHAY	2120	NA	3155	0-12VDC	MFG SPEC	9-14-84	12-14-84
17	SIGNAL CONDITIONER	SCHAEVITZ	CAS 100	NA	92331	0-10VDC	±2%	7-17-84	1-17-85
18	LVDT	SCHAEVITZ	3000 HR	NA	NA	±3 IN	±.25%	11-27-84	PRIOR TO USE

(Wyle A 1-3-85)

Instrumentation Paul A. Morgan 11-27-84

(Wyle A 1-3-85)

Checked & Received By F Mooly 11/27/84

HH 1029, Rev. A 11/82

INSTRUMENTATION EQUIPMENT SHEET

Date 11-27-84 Job No. 47447 Test Area HIGH FLOW

Technician D. WEBB Customer YANKEE ATOMIC Type Test VENT STACK

No.	Instrument	Manufacturer	Model No.	Serial No.	Wyle or Gov't No.	Range	Accuracy	Calibration On	Calibration Due
19	PRESSURE XDUCER	B&H	CEC 1000	NA	116236	0-1500 PSI	±.25%	8-11-84	2-11-85
20	PRESSURE XDUCER	B&H	CEC1000	NA	101239	0-500 PSI	±.25%	9-17-84	3-17-85
21	PRESSURE XDUCER	B&H	4.424.0001	NA	100396	0-500 PSI	±.25%	11-26-84	5-26-85
22	PRESSURE XDUCER	STATHAM	PA418	NA	11512	0-500 PSI	±.25%	9-29-84	3-29-85
23	PRESSURE XDUCER	B&H	CEC 1000	NA	101216	0-500 PSI	±.25%	9-17-84	3-17-85
24	LVDT CALIBRATOR	SCHAEVITZ	CAL4IN	1840	92332	0-2 IN.	±.001 IN.	10-4-84	4-4-85
25	DEADWEIGHT TESTER	AMETEK	R-K-300	NA	100323	0-300 PSI	±.03%	11-17-83	11-17-85
26	MULTIMETER	FLUKE	8020A	NA	92336	MULTIPLE	MFG SPEC	4-5-84	4-5-85
(9 Wyle A)	1-3-85								

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Instrumentation Paul A. Morgan 11-27-84 (9 Wyle) 1-3-85 Checked & Received By Thmoly 11/27/84

INSTRUMENTATION EQUIPMENT SHEET

Date 10-10-84 Job No. 47447 Test Area HI FLOW - SITE B

Technician D. CHAMBERLAIN Customer YANKEE ATOMIC Type Test VENT STACK

No.	Instrument	Manufacturer	Model No.	Serial No.	Wyle or Gov't No.	Range	Accuracy	Calibration On	Calibration Due
1	OSCILLOGRAPH	BELL & HOWELL	HR 2012	N/A	100703	DC-5KHZ	MFG. SPEC.	10-10-84	4-10-85
2	GALVO AMP	HONEYWELL	117	N/A	0392	10:1 6AW	±2%	7-9-84	1-9-85
3	GALVO AMP	HONEYWELL	117	N/A	95190	10:1 6AW	±2%	8-22-84	2-22-85
4	FILTER	ROCKLAND	852	N/A	100414	0-[illegible]KHZ	±2%	6-8-84	12-8-84
5	MULTIMETER	KEITHLEY	178	N/A	92680	MULTIPLE	MFG. SPEC.	8-10-84	2-10-85
6	VOLTAGE CURRENT SOURCE	DIGITEC	3110	N/A	100498	0-100VDC	MFG. SPEC.	7-12-84	1-12-85
7	PRESSURE GAUGE	HEISE	710A	N/A	100272	0-1500 PSI	±.1% FS	10-8-84	4-8-85
8	DATA LOGGER	ACUREX	APO1	N/A	11209	MULTIPLE	MFG. SPEC.	8-20-84	2-20-85
9	THERMOCOUPLE CONDITIONER	DAYTRONIC	9110AK	N/A	100415	-300°F TO 2300°F	MFG SPEC.	10-16-84	4-16-85
10	SIGNAL CONDITIONER	VISHAY	2120	N/A	3157	0-12VDC	MFG. SPEC	9-14-84	12-14-84
11	SIGNAL CONDITIONER	VISHAY	2120	N/A	3158	0-12VDC	MFG. SPEC	9-14-84	12-14-84
12	POWER SUPPLY	VISHAY	2110	N/A	11052	0-12VDC	±.1% R	9-14-84	12-14-84
13	SIGNAL CONDITIONER	SCHAEVITZ	CAS 100	N/A	92331	0-10VDC	±.2%	7-17-84	1-17-85
14	LVDT	SCHAEVITZ	3000HR	N/A	N/A	±3 IN.	±.25%	10-10-84	PRIOR TO USE
15	LVDT CALIBRATOR	SCHAEVITZ	CAL/IM	N/A	92332	0-2 IN.	±.001"	10-4-84	4-4-85
16	PRESSURE XDUCER	B&H	CEC 1000	N/A	11636	0-1500PSI	±.25%	8-11-84	2-11-85
17	PRESSURE XDUCER	B&H	CEC 1000	N/A	101239	0-500PSI	±.25%	9-17-84	3-17-85
18	PRESSURE XDUCER	B&H	CEC 1000	N/A	101216	0-500PSI	±.25%	9-17-84	3-17-85

Page No. 17
Report No. 47447-0

1/9/85

Instrumentation Paul A. Morgan 10-10-84

(11/9/85)

Checked & Received By L. J. Milloy 10-10-84

HH 1029, Rev. A 11/82

INSTRUMENTATION EQUIPMENT SHEET

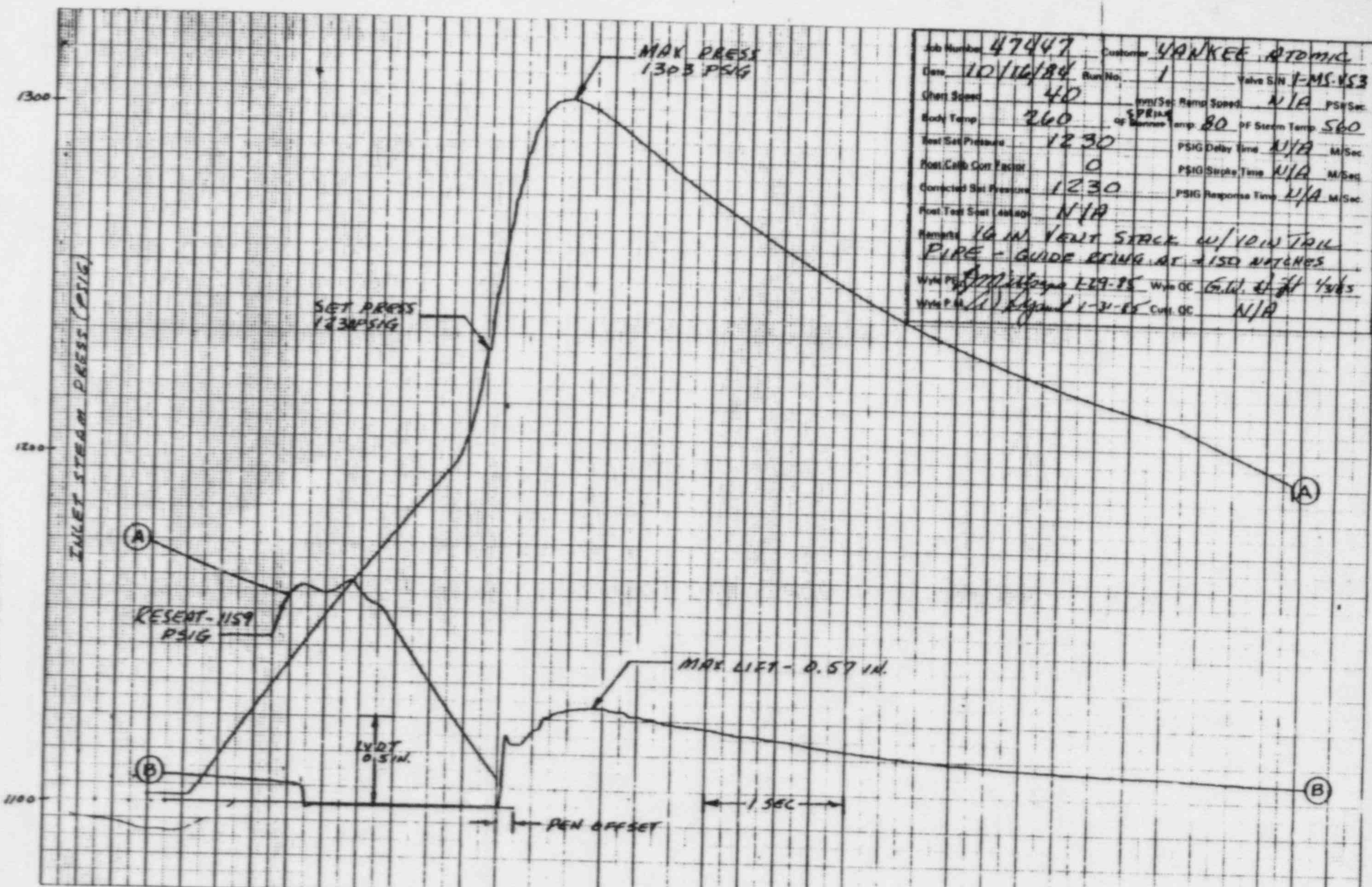
Date 10-10-84 Job No. 47447 Test Area HI FLOW - SITE B

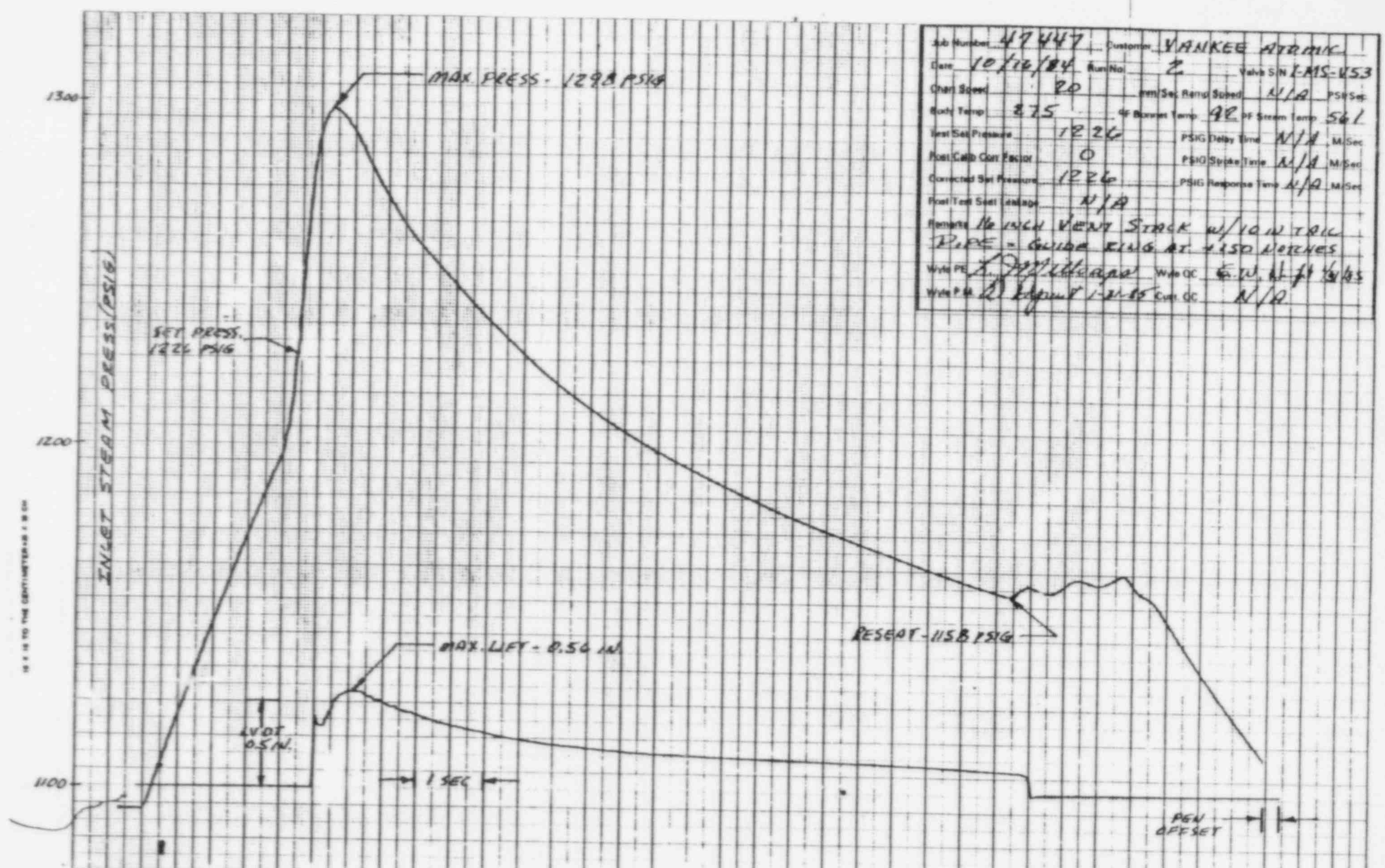
Technician P. CHAMBERLAIN Customer YANKEE ATOMIC Type Test VENT STACK

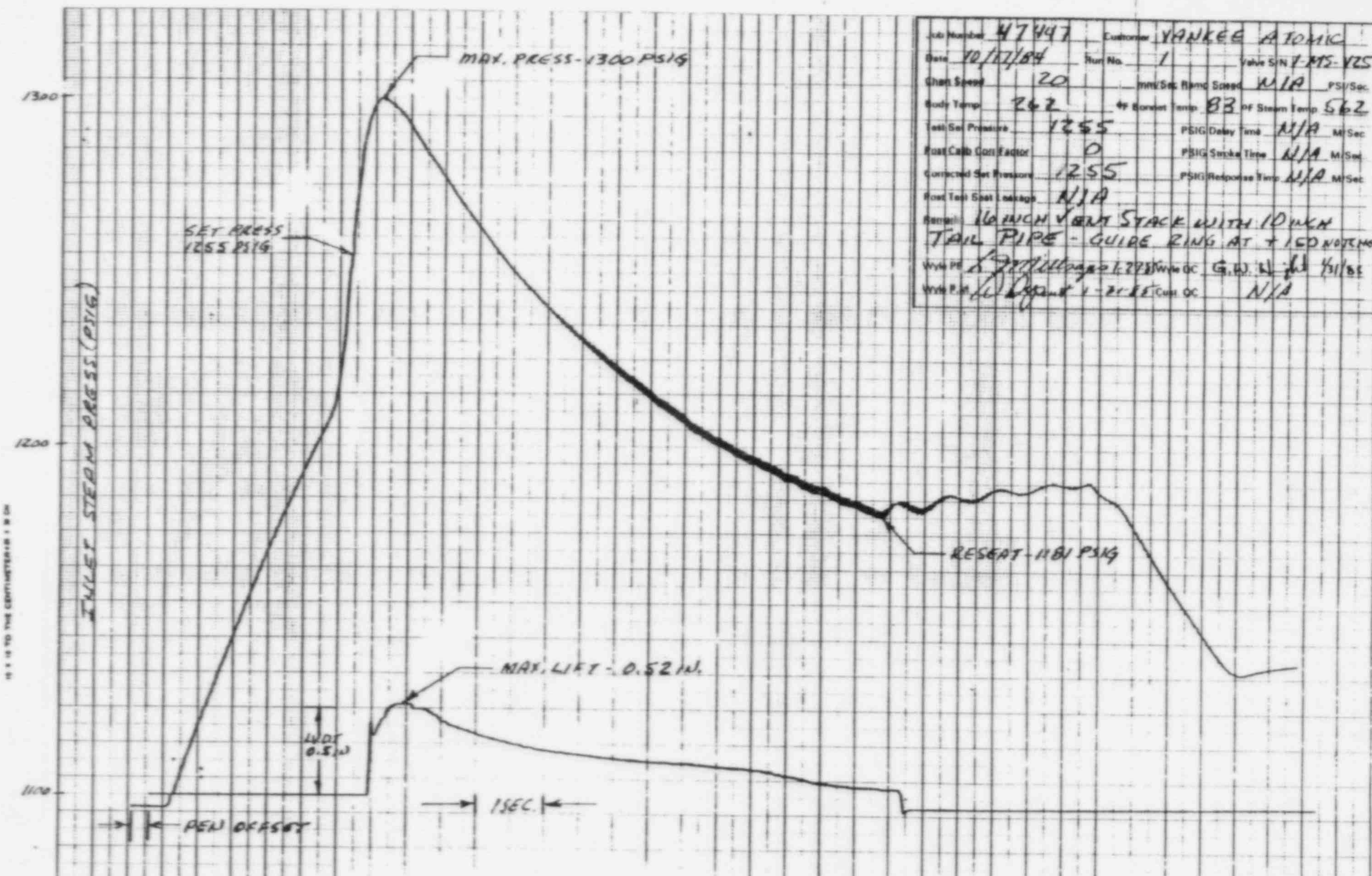
No.	Instrument	Manufacturer	Model No.	Serial No.	Wyle or Gov't No.	Range	Accuracy	Calibration On	Calibration Due
19	PRESSURE XDUCER	B+H	4.134.1001	N/A	100396	0-500PSI	±.25%	5-14-84	11-14-84
20	PRESSURE XDUCER	STATHAM	PA 418	N/A	11512	0-500PSI	±.25%	9-29-84	3-29-85
21	DEADWEIGHT TESTER	AMETEK	RK300	N/A	100323	0-300 PSI	±.03%	11-17-83	11-17-85
22	DEADWEIGHT TESTER	AMETEK	TQ-30	N/A	11219	0-3000 PSI	±.03%	1-5-84	1-5-86
23	X-Y PLOTTER	H-P	7046B	N/A	0506	.25 VOLTS/CM	±.2%	10-6-84	1-6-85
	1/9/85								
					1/9/85				

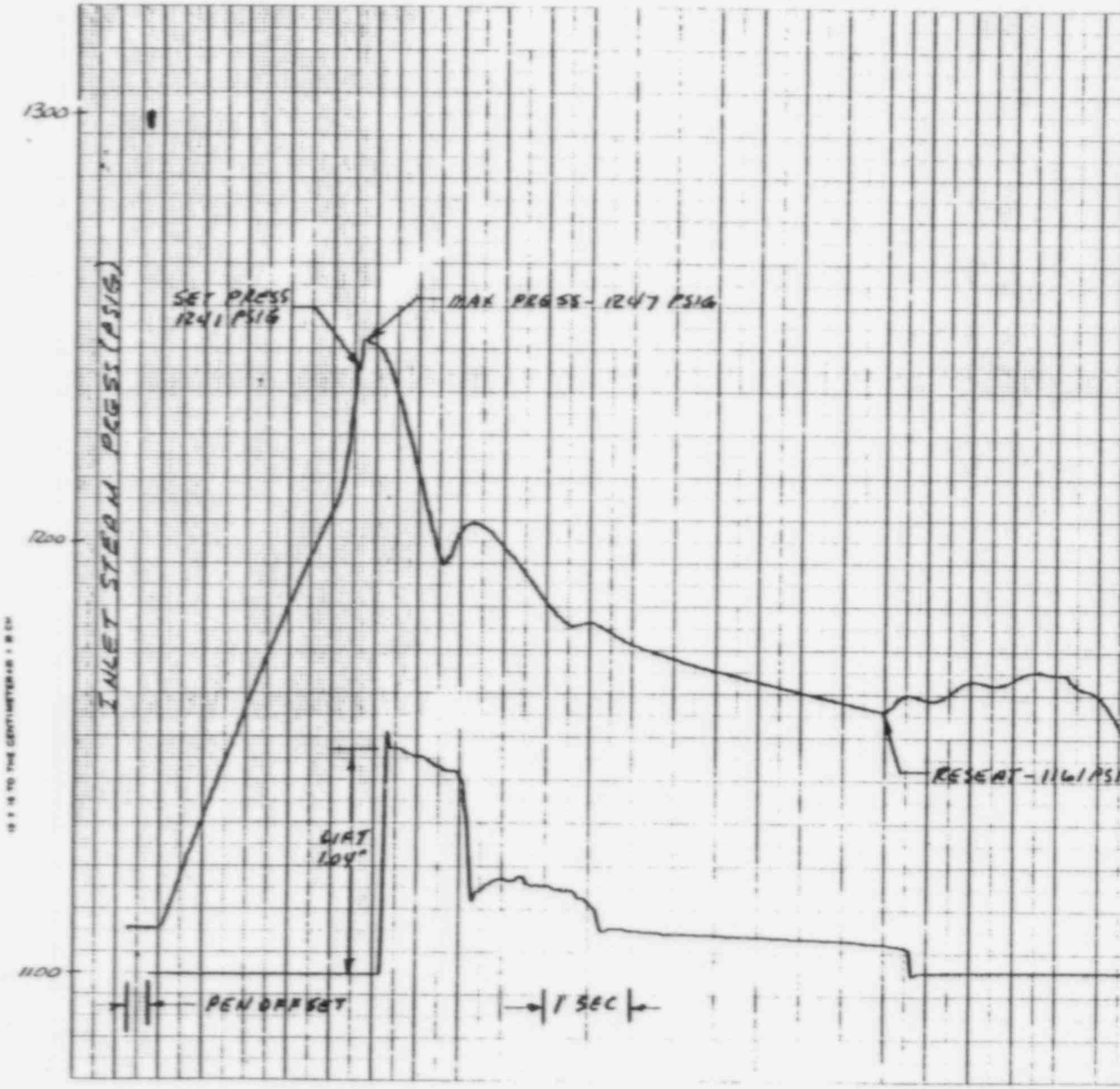
Instrumentation Paul A. Morgan 10-10-84 Checked & Received By D. J. Williams 10-10-84

HH 1029, Rev. A 11/82

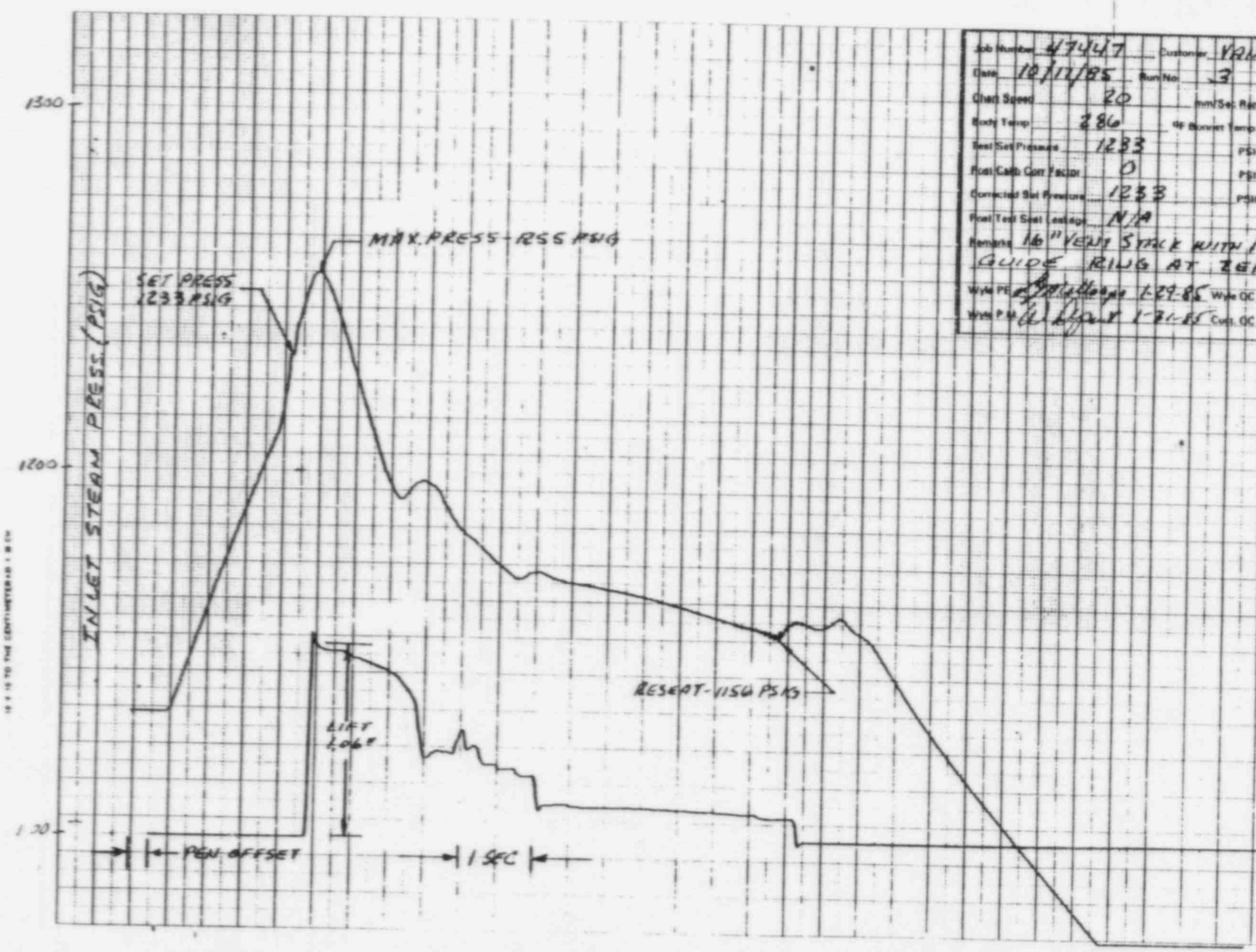

Job Number 47447 Customer YANKEE ATOMIC
Date 10/16/84 Run No. 1 Valve S/N 1-MS-V53
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 260 °F Spring Temp 80 °F Steam Temp 560
Test Set Pressure 1230 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1230 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 16 IN. VENT STACK w/10 IN TAIL PIPE - GUIDE RING AT +150 NOTCHES
Wyle PE 1-29-85 Wyle QC G.W. 4/3/85
Wyle P.M. 1-31-85 Cust. QC N/A
MAX PRESS 1303 PSIG
SET PRESS 1230 PSIG
RESEAT - 1159 PSIG
MAX LIFT - 0.57 IN.
LVDT 0.5 IN.
1 SEC
PEN OFFSET
INLET STEAM PRESS (PSIG)
1300
1200
1100
A
B


Job Number 47447 Customer YANKEE ATOMIC
Date 10/16/84 Run No. 2 Valve S/N 1-MS-V53
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp. 875 °F Bonnet Temp. 98 °F Steam Temp. 561
Test Set Pressure 1226 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1226 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 16 INCH VENT STACK W/10 IN TAIL PIPE - GUIDE RING AT +150 NOTCHES
Wyle PE
Wyle QC
Wyle PM
Cust. QC N/A
MAX PRESS - 1298 PSIG
SET PRESS. 1226 PSIG
INLET STEAM PRESS (PSIG)
1300
1200
1100
RESEAT - 1158 PSIG
MAX. LIFT - 0.56 IN.
LVDT 0.5 IN.
1 SEC
PEN OFFSET

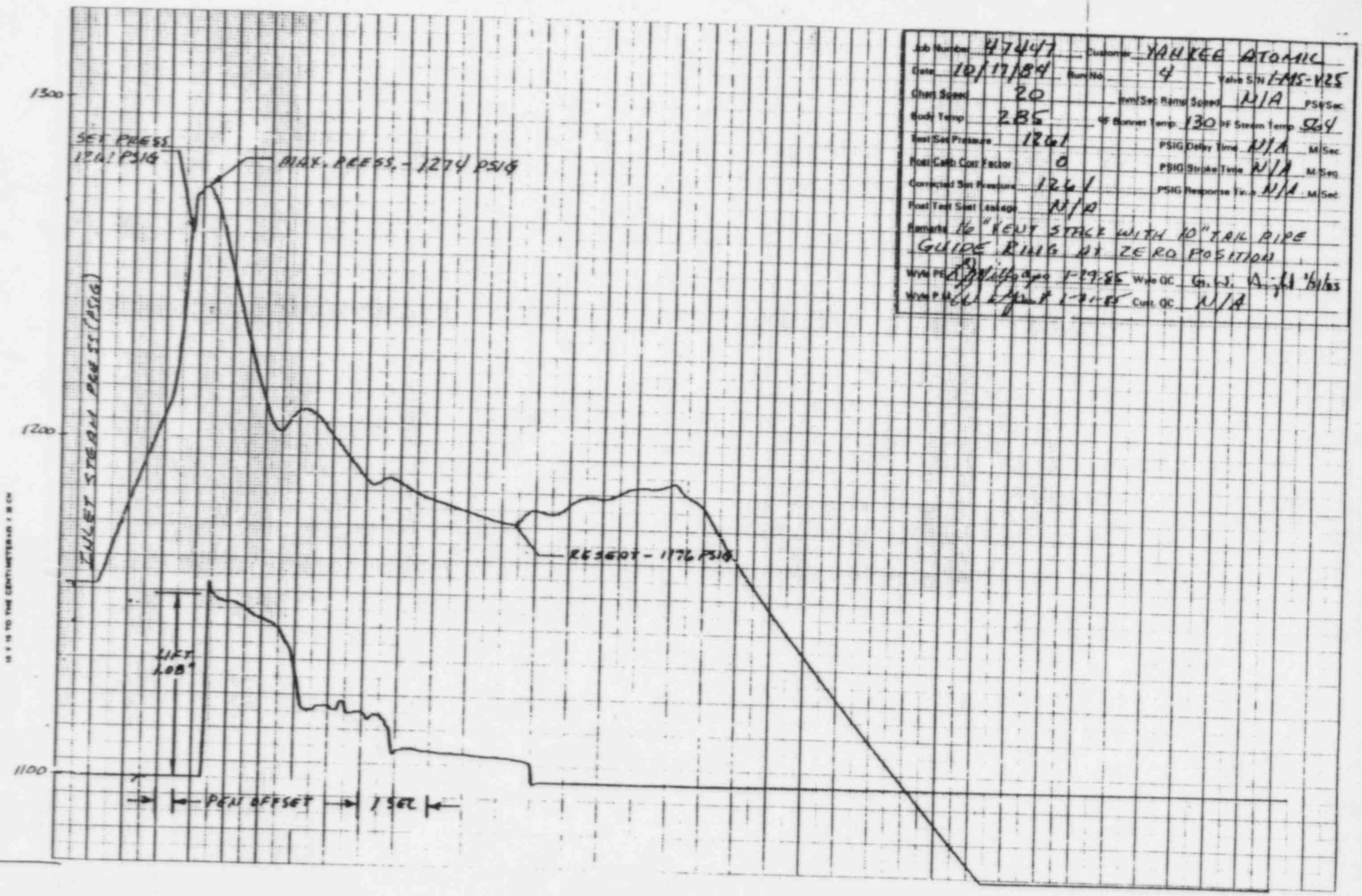

Job Number 47447 Customer YANKEE ATOMIC
Date 10/17/84 Run No. 1 Valve S/N 1-MS-V25
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec.
Body Temp. 262 °F Bonnet Temp. 83 °F Steam Temp 562
Test Set Pressure 1255 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1255 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 16 INCH VENT STACK WITH 10 INCH TAIL PIPE - GUIDE RING AT + 150 NOTCHES
Wyle PE 1-29-85 Wyle QC G.D.W. 1/31/85
Wyle P.M. 1-29-85 Cust QC N/A
MAX. PRESS - 1300 PSIG
SET PRESS 1255 PSIG
RESEAT - 1181 PSIG
MAX. LIFT - 0.52 IN.
LVDT 0.5 IN
1 SEC.
PEN OFFSET
INLET STEAM PRESS (PSIG)
1300
1200
1100



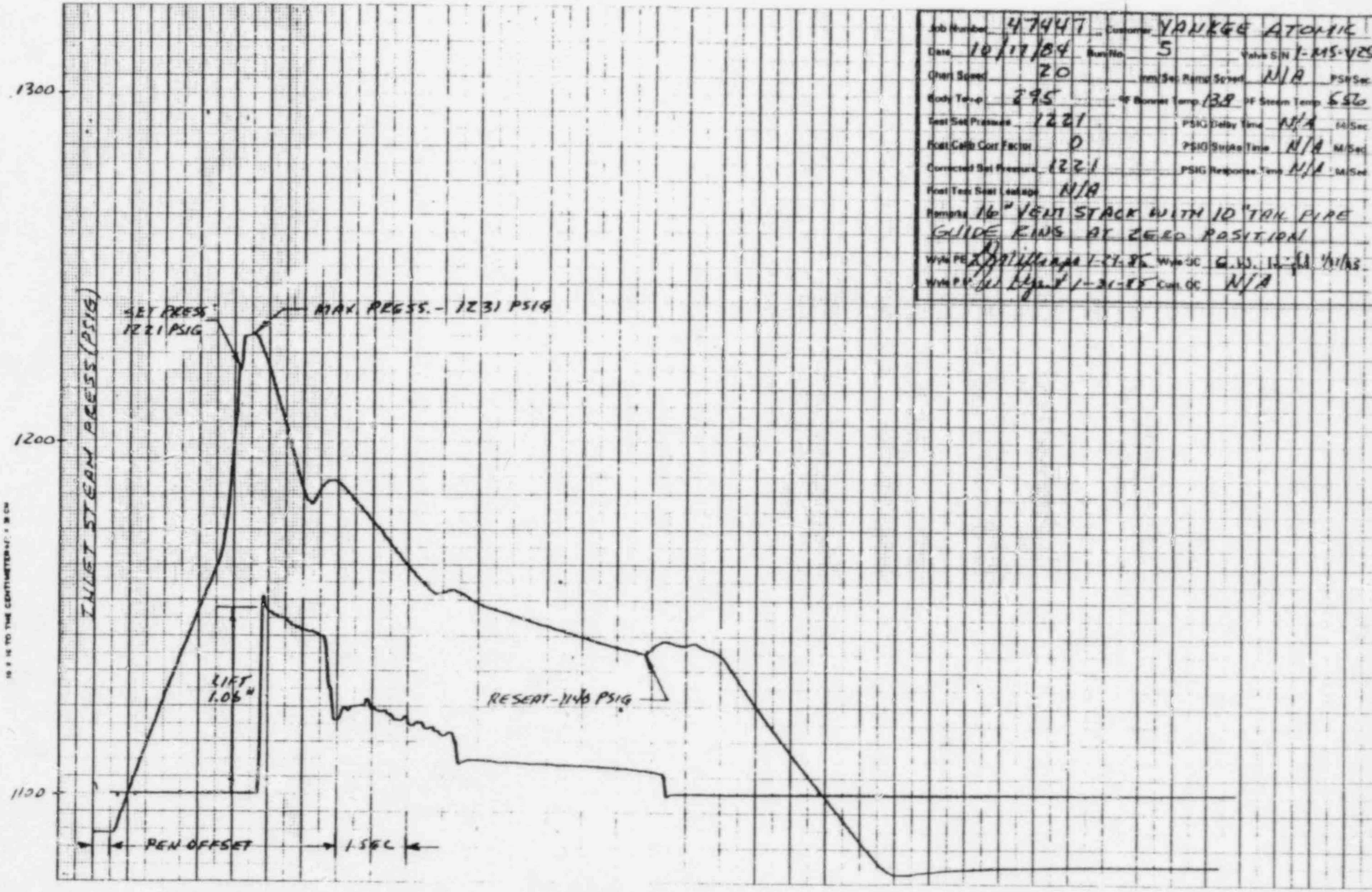
Job Number	47447
Customer	YANKEE ATOMIC
Date	10/17/84
Run No.	2
Valve S/N	V-MS-V25
Chart Speed	20 mm/Sec
Ramp Speed	N/A PSI/Sec
Body Temp	278 °F
Bonnet Temp	97 °F
Steam Temp	561
Test Set Pressure	1241 PSIG
Delay Time	N/A MSec
Post Calib Corr Factor	0 PSIG
Stroke Time	N/A MSec
Corrected Set Pressure	1241 PSIG
Response Time	N/A MSec
Post Test Seat Leakage	N/A
Remarks	16" VENT STACK WITH 10" TAIL PIPE GUIDE RING MOVED DOWN 150 NOTCHES
Wyle PE	[illegible] 7-29-85
Wyle QC	G.W. [illegible] 7/31/85
Wyle PM	[illegible] 7-31-85
Cust QC	N/A



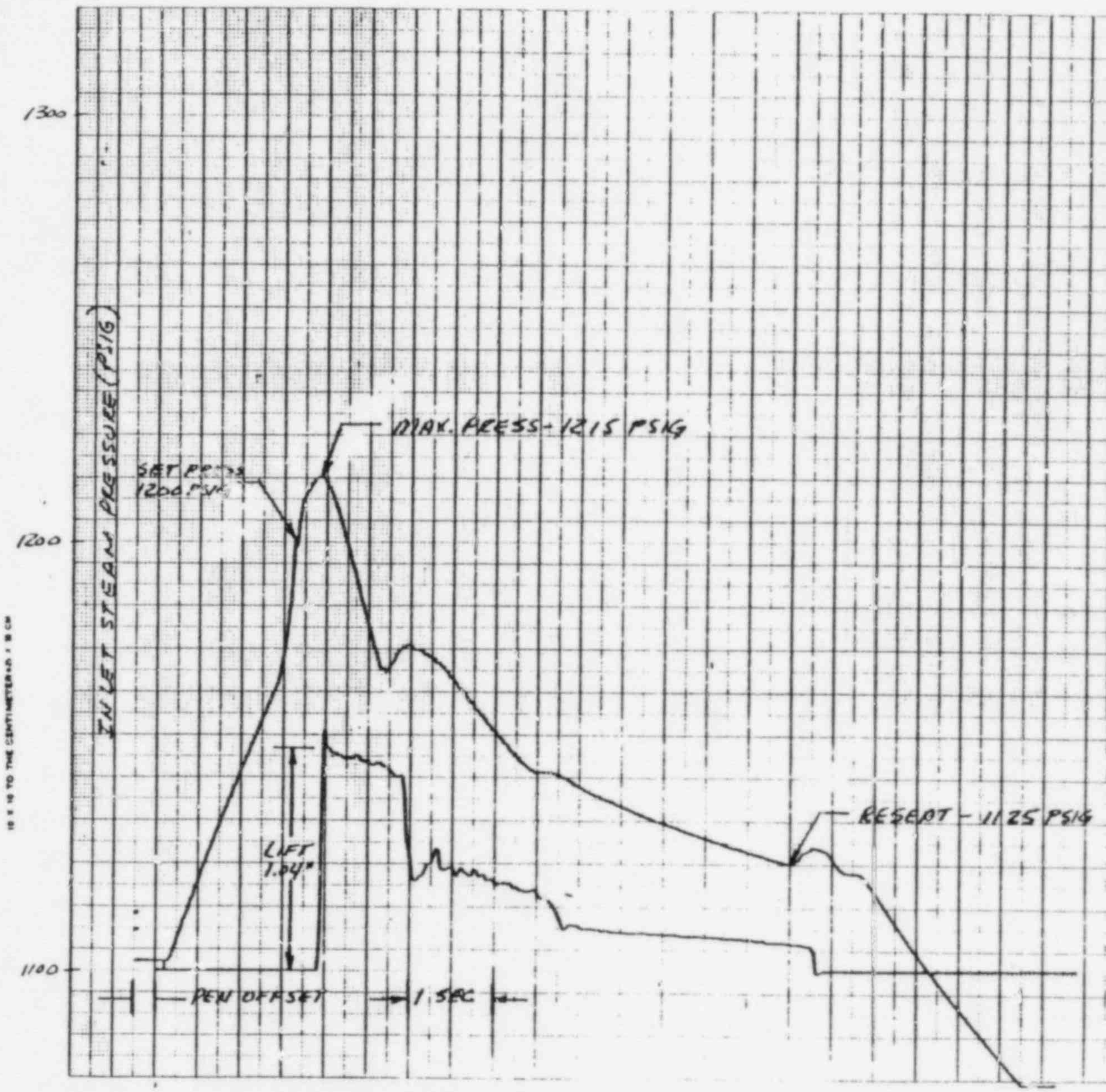
Job Number 47447 Customer YANKEE ATOMIC
Date 10/17/85 Run No. 3 Valve S/N 1-MS-V2
Chart Speed 20 mm/Sec Ramp Speed PSI/Sec
Body Temp 286 °F Bonnet Temp 115 °F Steam Temp 561
Test Set Pressure 1233 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1233 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 16" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE [signature] 1-29-85 Wyle QC G.D. [signature] 1/31/85
Wyle P.M. [signature] 1-31-85 Cust. QC N/A



Job Number 47447 Customer YANKEE ATOMIC
Date 10/17/84 Run No. 4 Valve S/N I-MS-V25
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 285 °F Bonnet Temp 130 °F Steam Temp 564
Test Set Pressure 1261 PSIG Delay Time N/A M Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M Sec
Corrected Set Pressure 1261 PSIG Response Time N/A M Sec
Post Test Seat Leakage N/A
Remarks 16" VENT STACK WITH 10" TAIL PIPE GUIDE RING AT ZERO POSITION
WW PE 1-29-85 Wyle QC
WW PM 1-31-85 Cust. QC N/A
1300
1200
1100
SET PRESS 1261 PSIG
MAX. PRESS. - 1274 PSIG
INLET STEAM PRESS (PSIG)
RESEAT - 1176 PSIG
LIFT .608"
PEN OFFSET
1 SEC



Job Number 47447 Customer YANKEE ATOMIC
Date 10/17/84 Run No. 5 Valve S/N 1-MS-VES
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp. 295 °F Bonnet Temp. 138 °F Steam Temp. 550
Seat Set Pressure 1221 PSIG Delay Time N/A M/Sec
Float Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1221 PSIG Response Time N/A M/Sec
Final Test Seat Leakage N/A
Remarks 16" VENT STACK WITH 10" TAIL PIPE GUIDE RINGS AT ZERO POSITION
Wyle PE 1-31-85 Wyle QC
Wyle P.V. 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS (PSIG)
SET PRESS. 1221 PSIG
MAX. PRESS. - 1231 PSIG
LIFT 1.06"
RESEAT - 1148 PSIG
PEN OFFSET
1 SEC

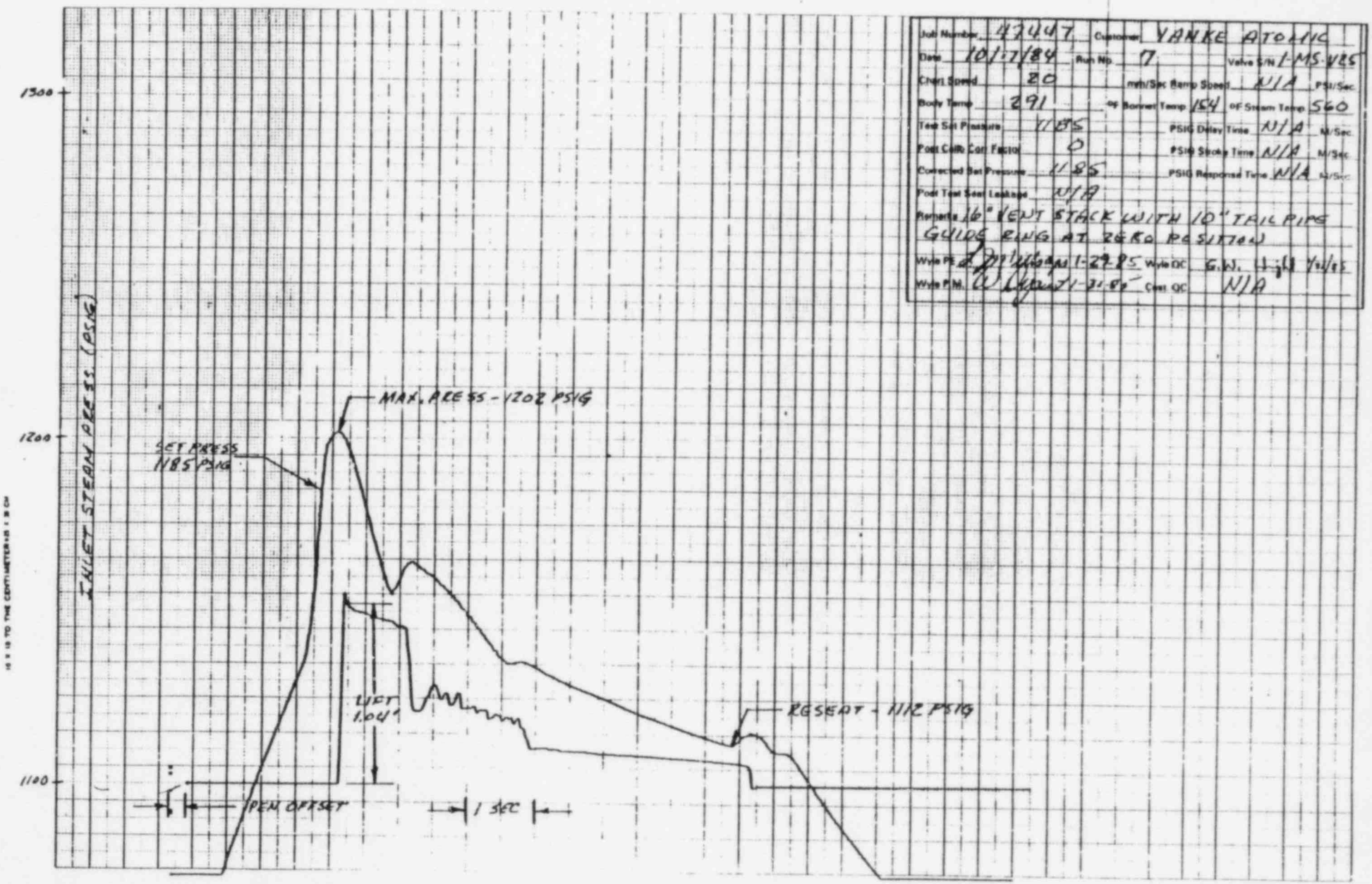


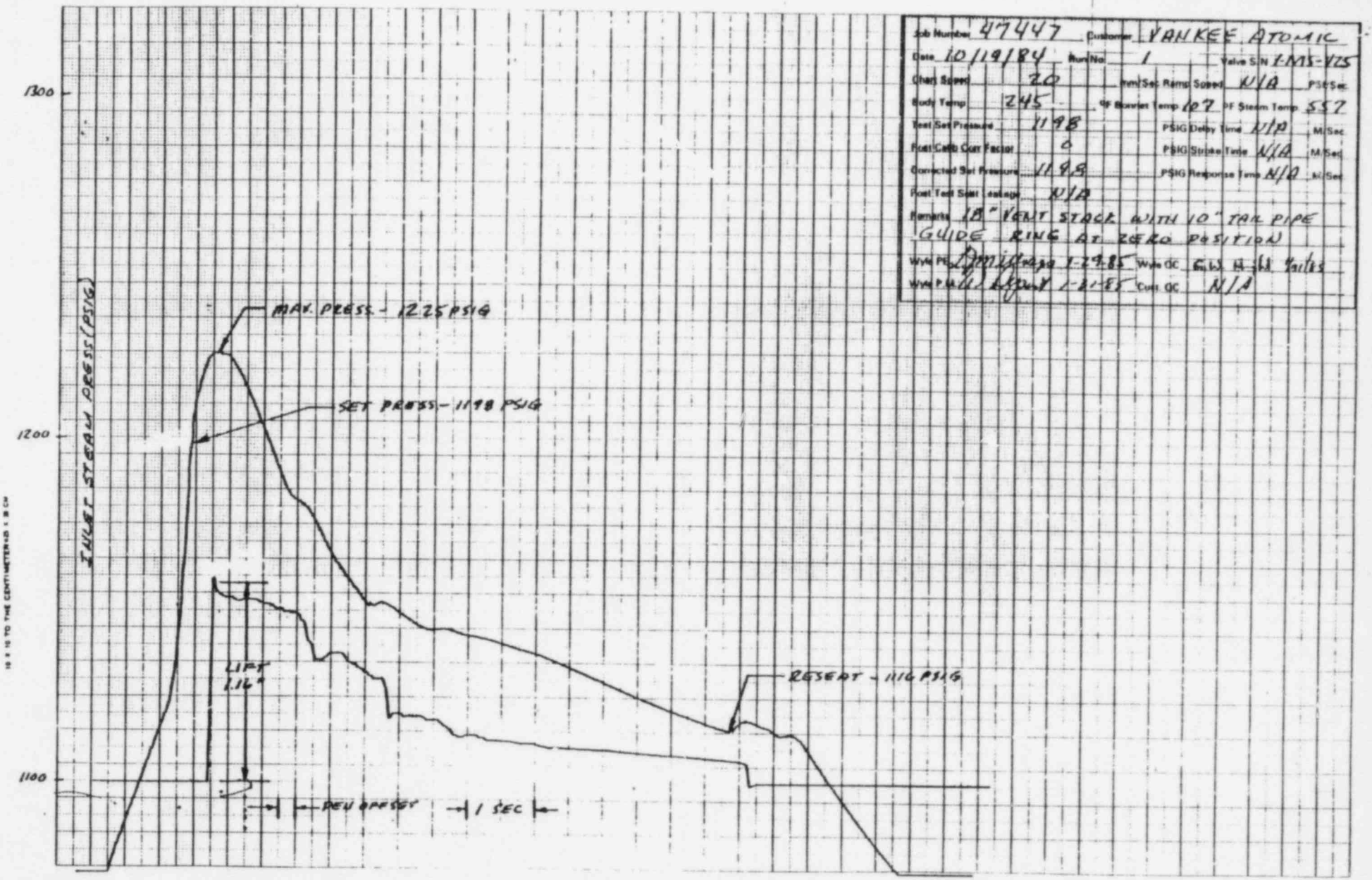
Job Number	47447	Customer	YANKEE ATOMIC
Date	10/17/84	Run No.	6
Valve S/N	1-MS-V25		
Chart Speed	20 mm/Sec	Ramp Speed	N/A PSI/Sec
Body Temp	295 °F	Bonnet Temp	147 °F
Steam Temp	547		
Test Set Pressure	1200 PSIG	Delay Time	N/A M/Sec
Foot Calib Corr Factor	0 PSIG	Stroke Time	N/A M/Sec
Corrected Set Pressure	1200 PSIG	Response Time	N/A M/Sec
Final Test Seat Leakage	N/A		

Remarks: 16" VENT STACK WITH 10" TAILPIPE GUIDE RING AT ZERO POSITION

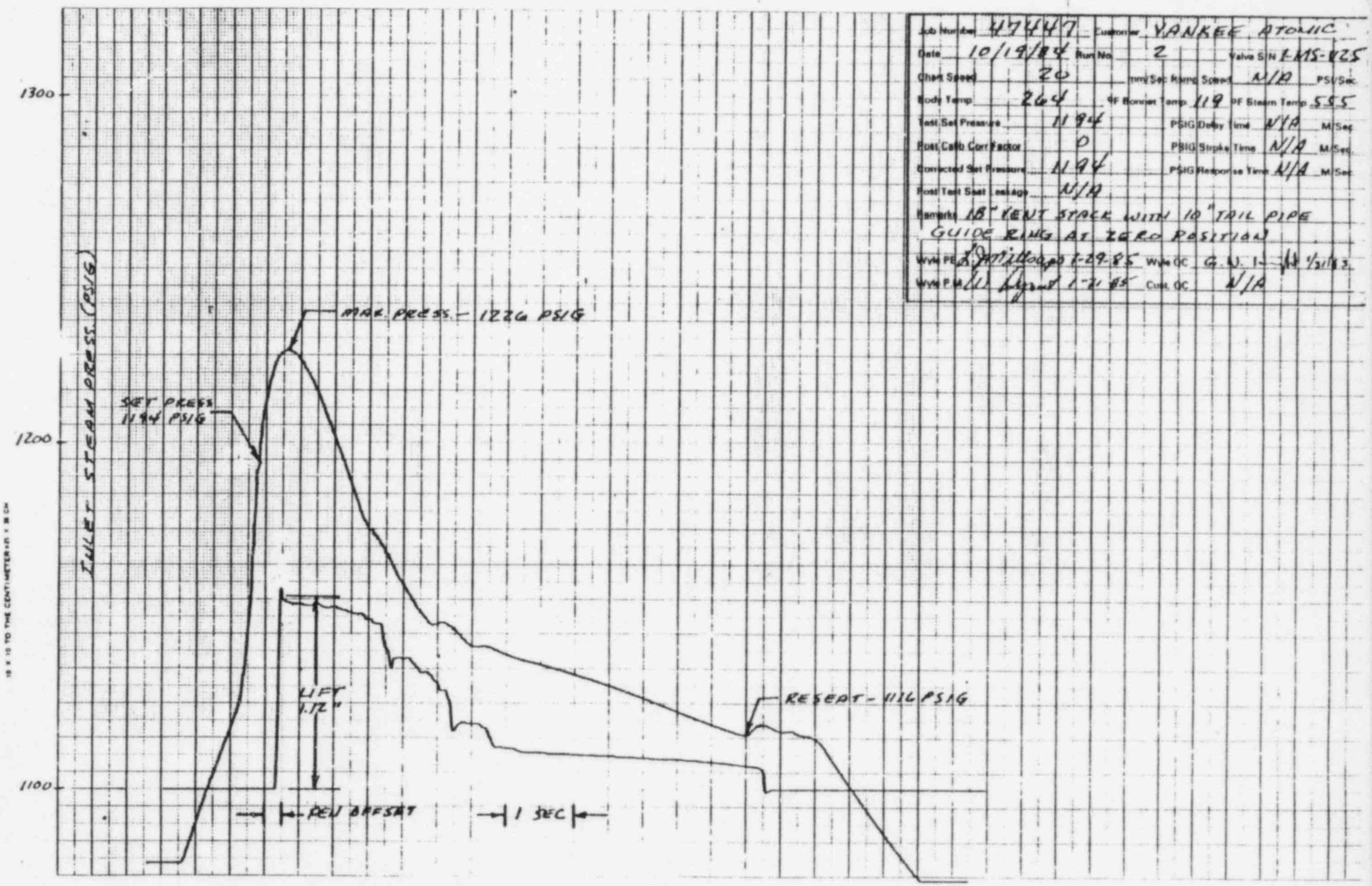
Wyle PE	[signature] 1-29-85	Wyle QC	
Wyle P.M.	[signature] 1-31-85	Cust. QC	N/A

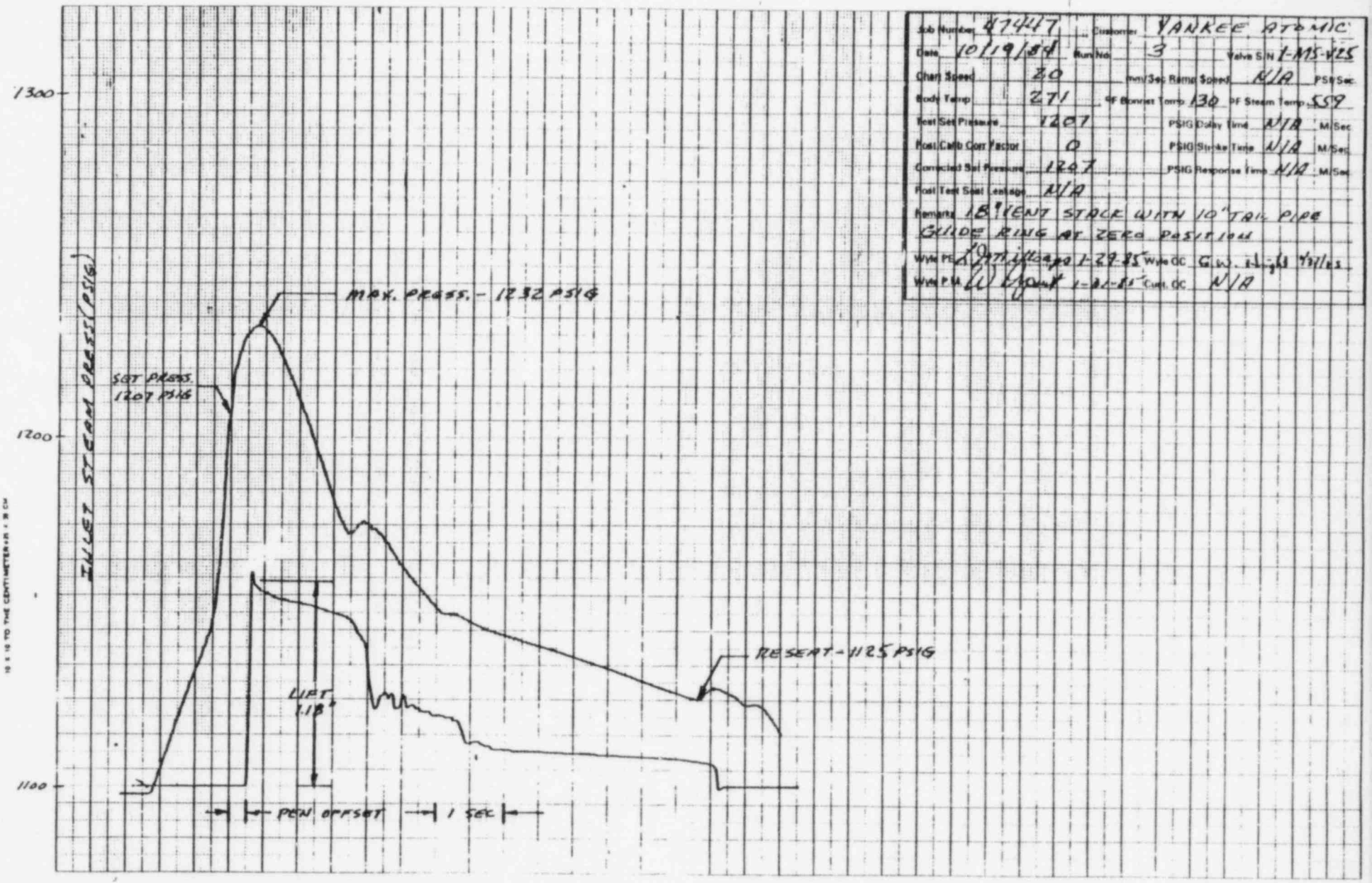
10 X 10 TO THE CENTIMETER

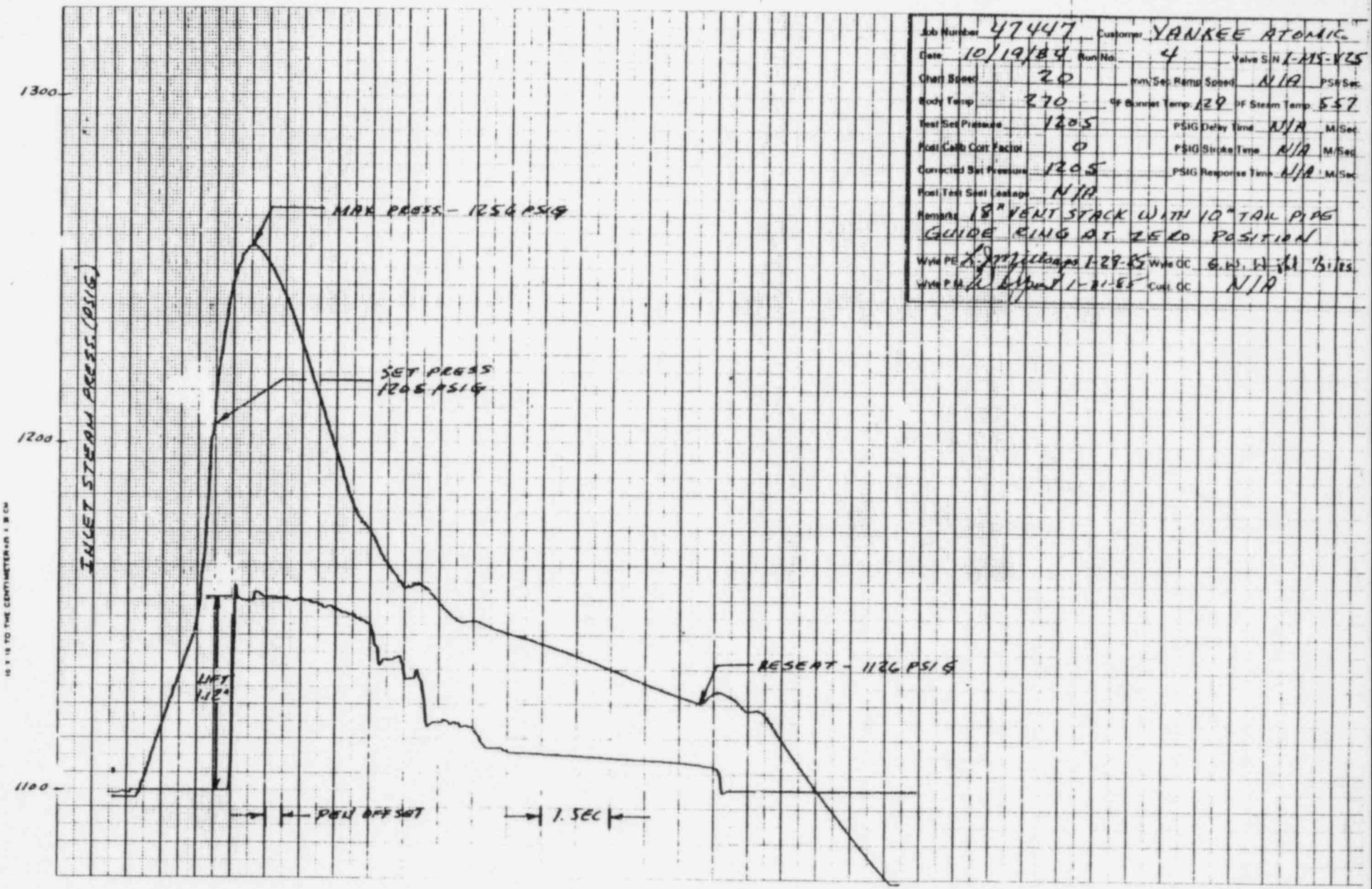

Job Number 47447 Customer YANKEE ATOMIC
Date 10/7/84 Run No 7 Valve S/N 1-MS-V85
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 291 °F Bonnet Temp 154 °F Steam Temp 560
Test Set Pressure 1185 PSIG Delay Time N/A M/Sec
Post Cold Cor. Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1185 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 16" VENT STACK WITH 10" TAILPIPE
GUIDE RING AT ZERO POSITION
Wyle PE 1-27-85 Wyle QC G.W. 1-31-85
Wyle P.M. 1-31-85 Cust QC N/A
1300
1200
1100
INLET STEAM PRESS. (PSIG)
MAX. ACCESS - 1202 PSIG
SET PRESS 1185 PSIG
LIFT 1.041"
RESEAT - 1112 PSIG
PEN OFFSET
1 SEC


Job Number 47447 Customer YANKEE ATOMIC
Date 10/19/84 Run No 1 Valve S/N 1-MS-425
Chart Speed 20 mm/Sec Rams Speed N/A PSI/Sec
Body Temp 245 °F Booster Temp 107 °F Steam Temp 557
Test Set Pressure 1198 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1198 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 18" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE Dimitrasa 1-29-85 Wyle QC G.W. Hughes 1-21-85
Wyle Proj Engr Lagunt 1-21-85 Cust QC N/A
1300
1200
1100
INLET STEAM PRESS (PSIG)
MAX. PRESS - 1225 PSIG
SET PRESS - 1198 PSIG
RESEAT - 1116 PSIG
LIFT 1.16"
DEV OFFSET
1 SEC

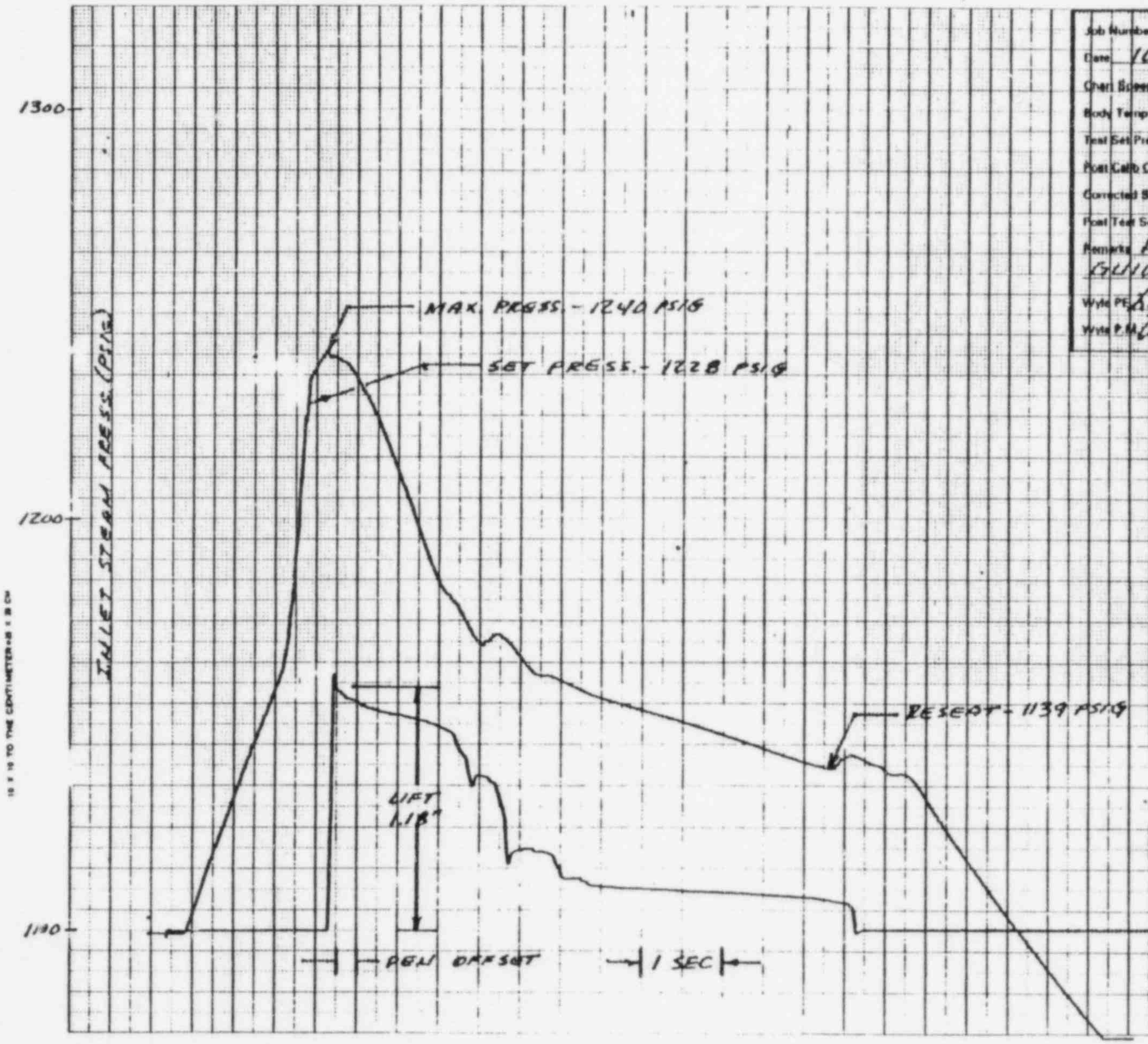
Job Number 47447	Customer YANKEE ATOMIC		
Date 10/19/84	Run No. 2		Valve S/N 1-MS-825
Chart Speed 20 mm/Sec	Ramp Speed N/A PSI/Sec		
Body Temp 264 °F	Bonnet Temp 119 °F		Steam Temp 555
Test Set Pressure 1194 PSIG	Delay Time N/A M/Sec		
Post Calib Corr Factor 0 PSIG	Stroke Time N/A M/Sec		
Corrected Set Pressure 1194 PSIG	Response Time N/A M/Sec		
Post Test Seat Leakage N/A			
Remarks 18" VENT STACK WITH 10" TAIL PIPE GUIDE RING AT ZERO POSITION			
WW PE [illegible] 1-29-85	Wyle QC G. U. I- [illegible] 1/31/85		
WW PM [illegible] 1-21-85	Cust. QC N/A		



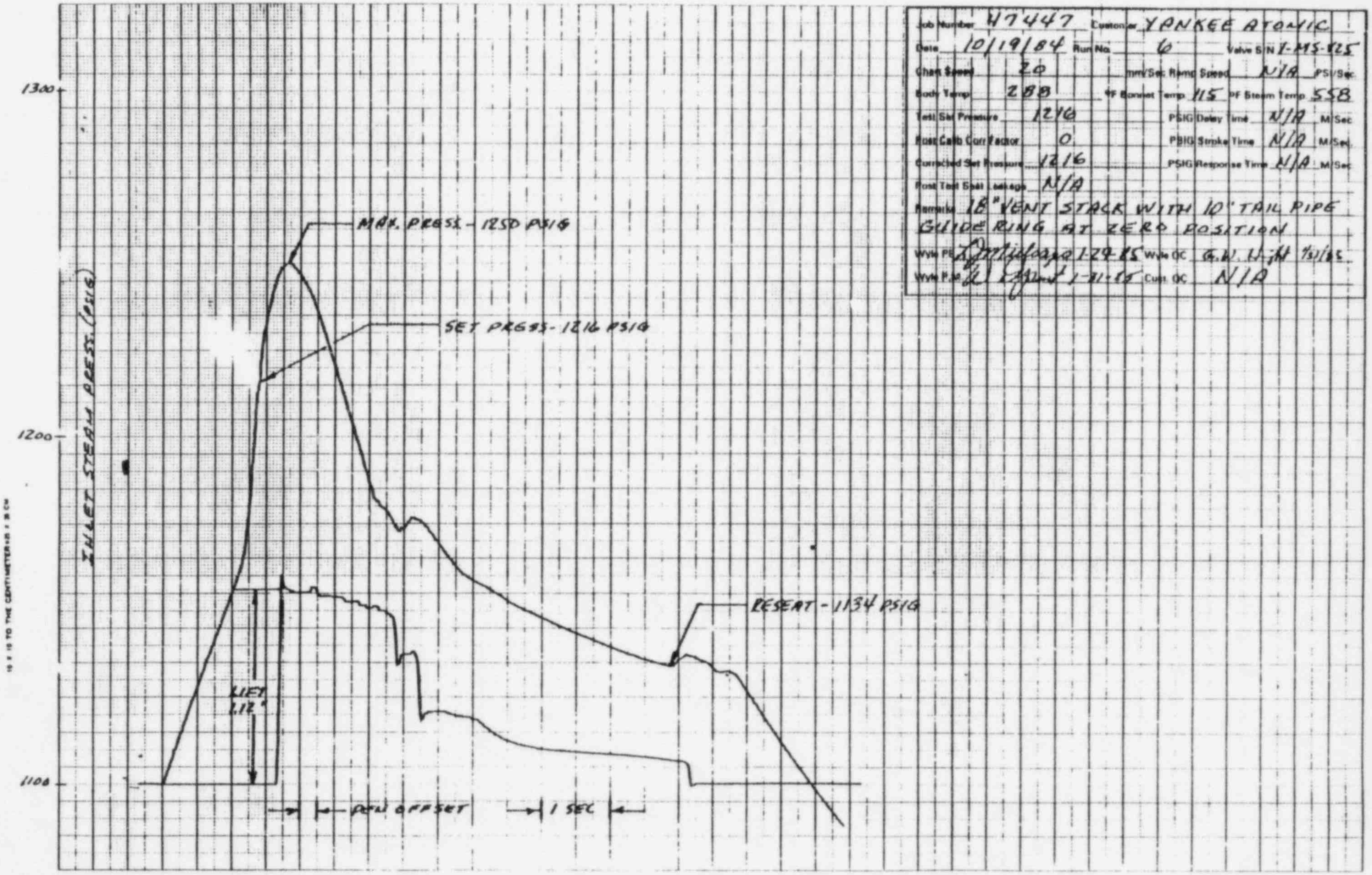

Sub Number 87447 Customer YANKEE ATOMIC
Date 10/19/84 Run No. 3 Valve S/N 1-M5-V25
Chart Speed 20 mm/Sec Rams Speed N/A PSI/Sec
Body Temp 271 °F Bonnet Temp 130 °F Steam Temp 559
Test Set Pressure 1207 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1207 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 18' VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE 1-29-85 Wyle QC G.W. 1-29-85
Wyle PM 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS (PSIG)
MAX. PRESS. - 1232 PSIG
SET PRESS. 1207 PSIG
RESEAT - 1125 PSIG
LIFT 1.18"
PEN OFFSET
1 SEC
10 X 10 TO THE CENTIMETER-IN = 25 CM


Job Number 47447 Customer YANKEE ATOMIC
Date 10/19/84 Run No. 4 Valve S/N I-115-125
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 270 °F Bonnet Temp 129 °F Steam Temp 557
Test Set Pressure 1205 PSIG Delay Time N/A M/Sec
Post Cold Cont Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1205 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 18" VENT STACK WITH 10" TAIL PIPE GUIDE RING AT ZERO POSITION
Wyle PE [illegible] 1-29-85 Wyle QC G.W. [illegible] 1-31-85
Wyle P.M. [illegible] 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS. (PSIG)
MAX PRESS. - 1256 PSIG
SET PRESS 1206 PSIG
RESEAT - 1126 PSIG
LIFT 4.2%
POP OFF SET
1. SEC

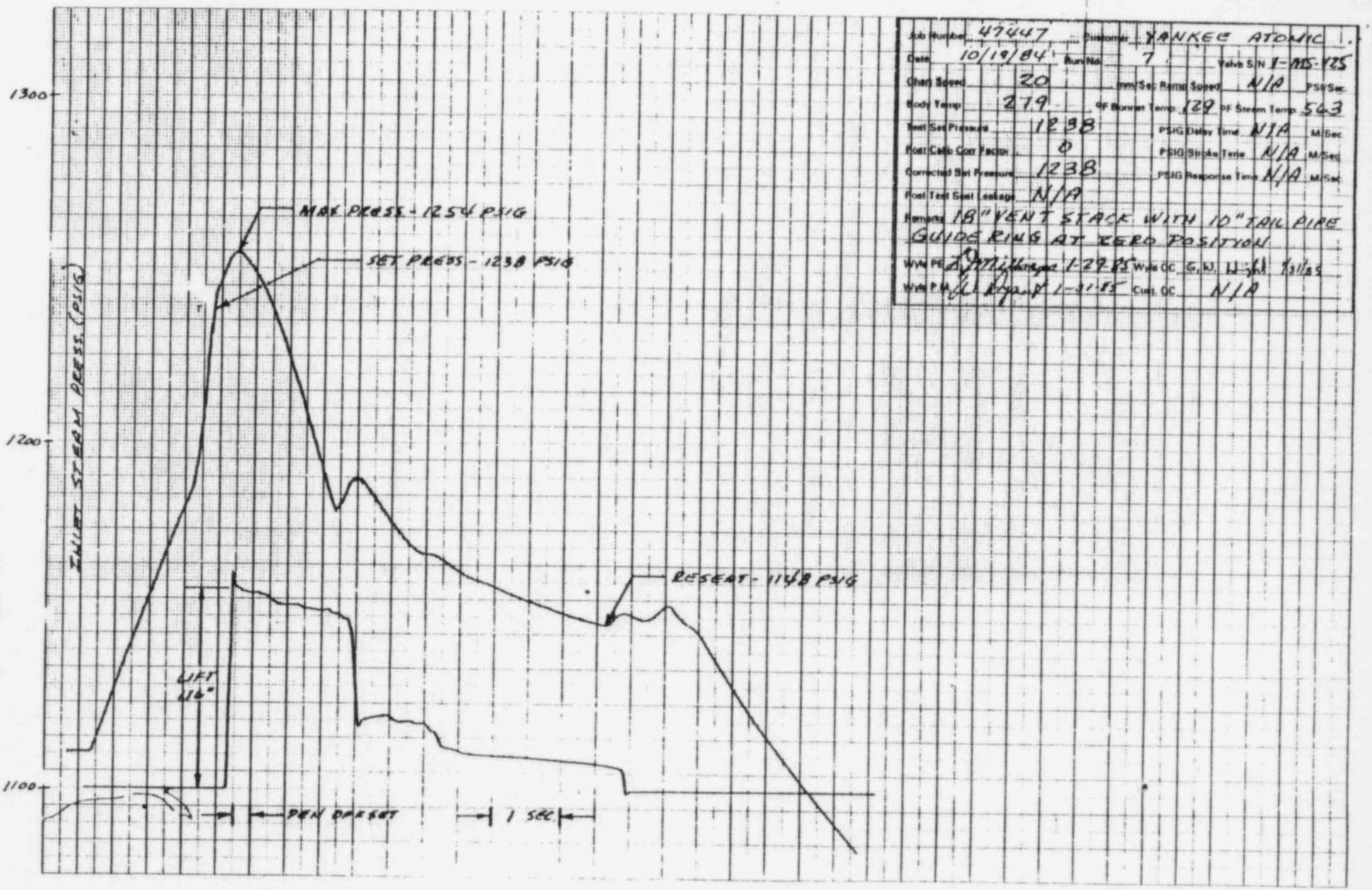
Job Number 47447 Customer YANKEE ATOMIC
Date 10/19/84 Run No. 5 Valve S/N 1-MS-V25
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 290 °F Bonnet Temp 48 °F Steam Temp 501
Test Set Pressure 1228 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1228 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 18" VENT STACK WITH 10" TAIL PIPE. GUIDE RING AT ZERO POSITION
Wyle PE [illegible] 1-29-85 Wyle QC G.W. [illegible] 1/31/85
Wyle PM [illegible] 1-31-85 Cust. QC N/A

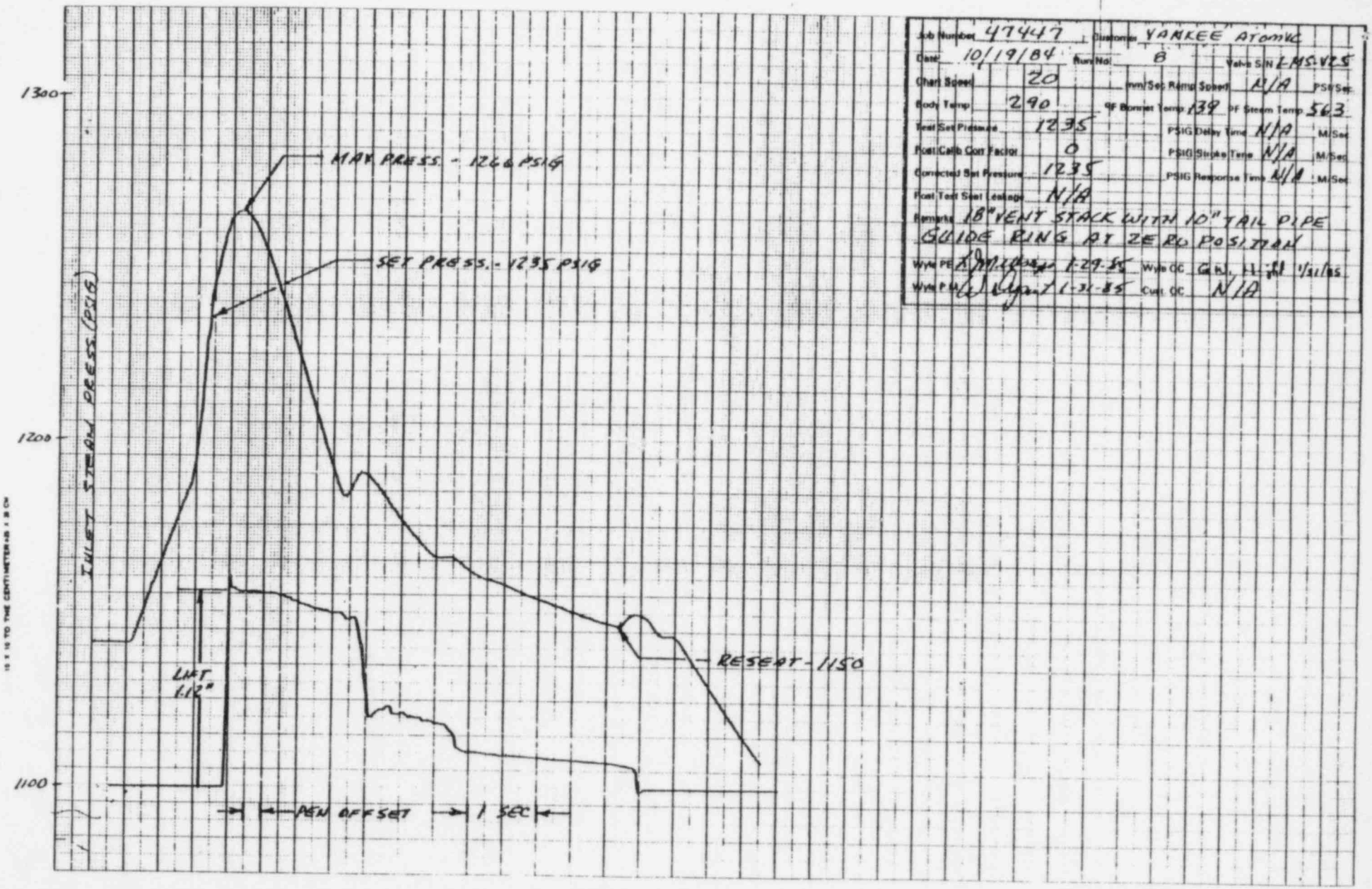


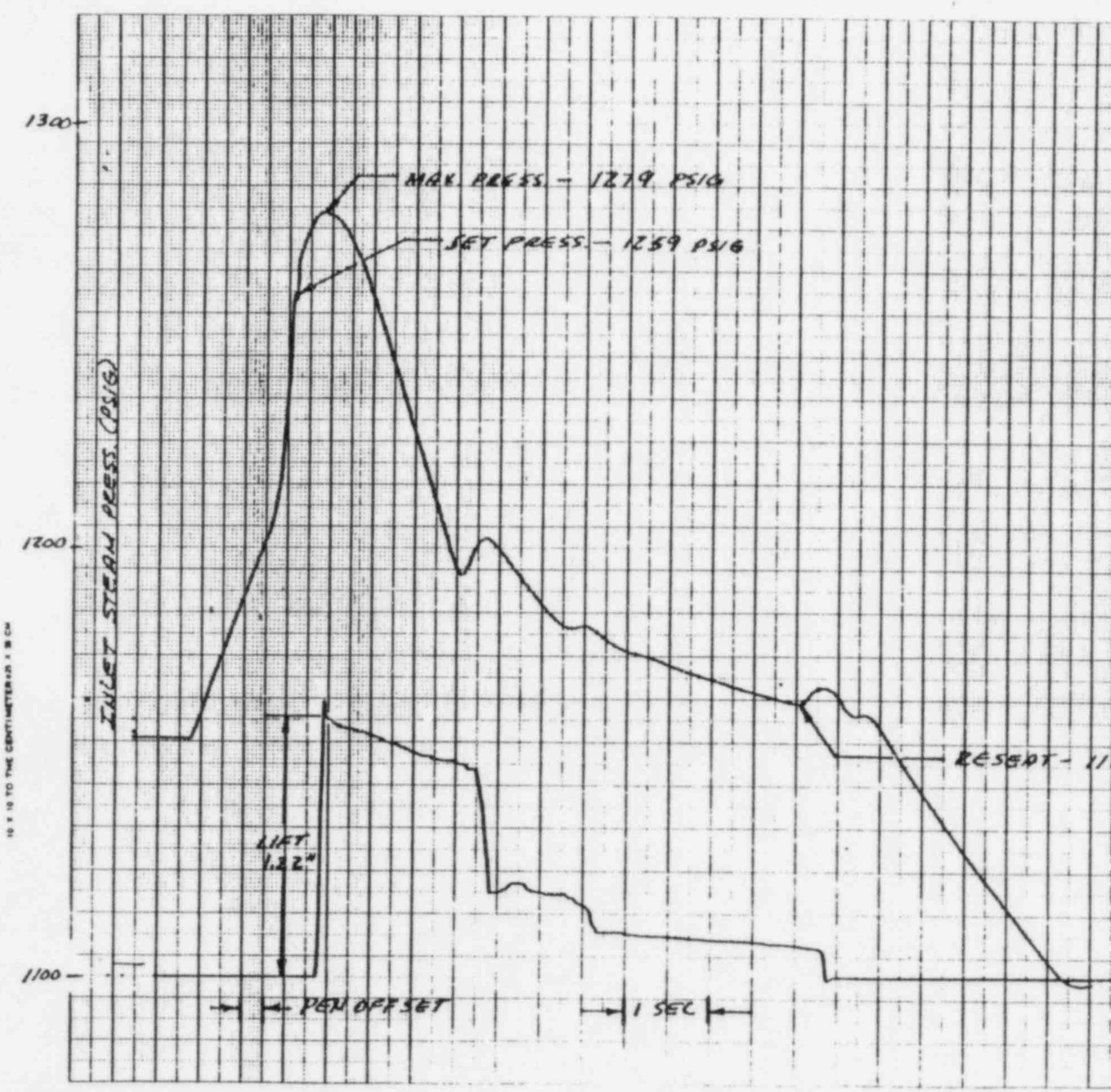
10 X 10 TO THE CENTIMETER 18 X 25 CM



10 X 10 TO THE CENTIMETER 18 X 25 CM


Job Number 47447 Customer YANKEE ATOMIC
Date 10/19/84 Run No. 7 Valve S/N 1-115-125
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 279 °F Burner Temp 129 °F Steam Temp 563
Test Set Pressure 1238 PSIG Delay Time N/A M/Sec
Post Cable Corr Factor 0 PSIG Strobe Time N/A M/Sec
Corrected Set Pressure 1238 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 18" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE 1-27-85 Wyle QC 1-31-85
Wyle P.M. 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS. (PSIG)
MAX PRESS - 1254 PSIG
SET PRESS - 1238 PSIG
RESEAT - 1148 PSIG
LIFT 116°
PEN OFFSET
1 SEC


1300
1200
1100
INLET STEAM PRESS. (PSIG)
MAX PRESS. - 1266 PSIG
SET PRESS. - 1235 PSIG
RESEAT - 1150
LIFT 1.12"
PEN OFFSET
1 SEC
10 X 15 TO THE CENTIMETER
Job Number 47447
Customer YANKEE ATOMIC
Date 10/19/84
Run No. 8
Valve S/N L-MS-V25
Chart Speed 20 mm/Sec
Ramp Speed N/A PSI/Sec
Body Temp 290 °F
Bonnet Temp 139 °F
Steam Temp 563
Test Set Pressure 1235 PSIG
Delay Time N/A M/Sec
Post Calib Cost Factor 0
Stroke Time N/A M/Sec
Corrected Set Pressure 1235 PSIG
Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 18" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE 1-29-85
Wyle QC 1-31-85
Wyle PM 1-31-85
Cust. QC N/A



Job Number 47447 Customer YANKEE ATOMIC

Date 10/19/84 Run No. 9 Valve S/N EMS-V25

Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec

Body Temp 288 °F Bonnet Temp N.S. °F Steam Temp 566

Test Set Pressure 1259 PSIG Delay Time N/A M/Sec

Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec

Corrected Set Pressure 1259 PSIG Response Time N/A M/Sec

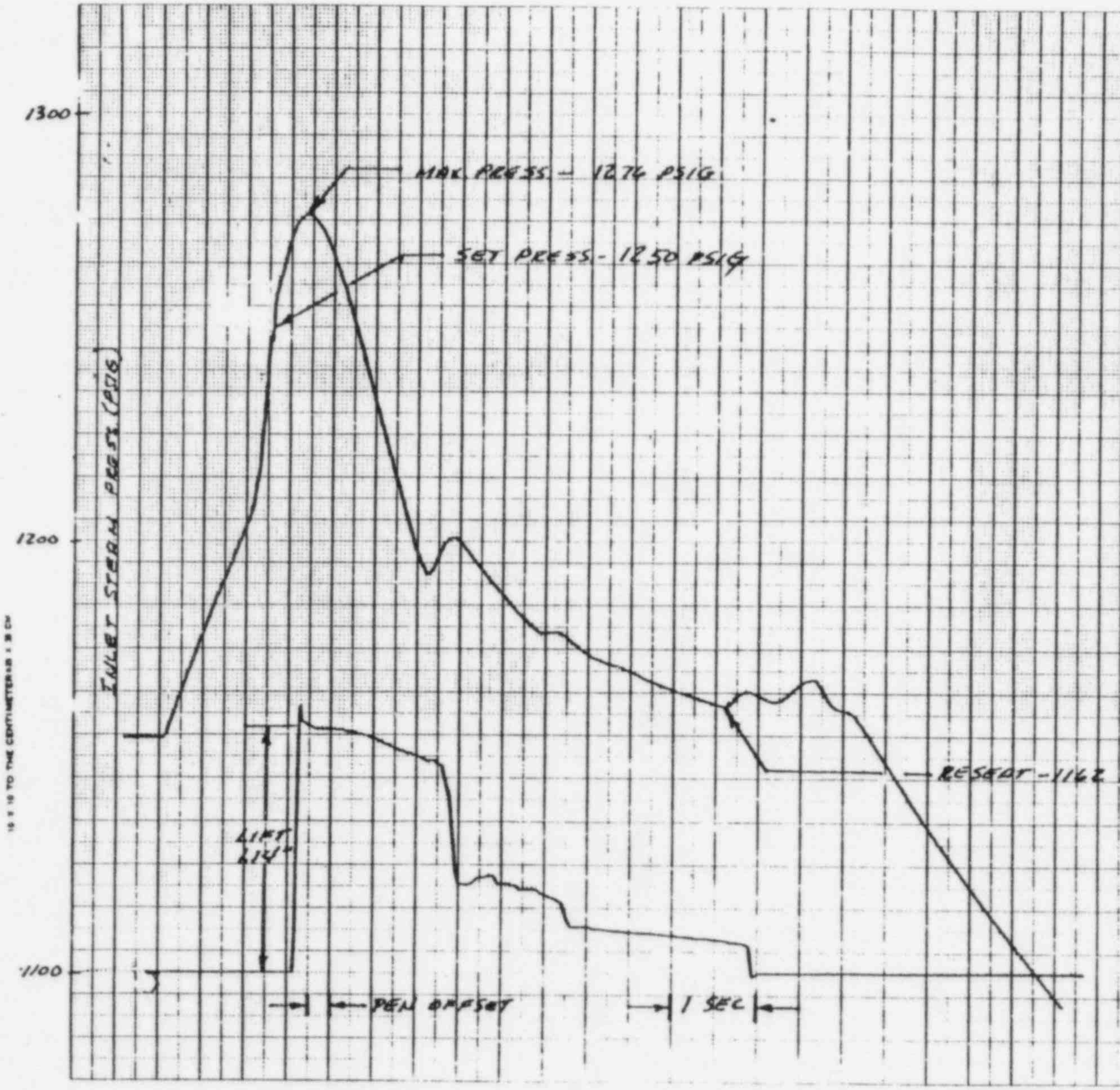
Post Test Seat Leakage N/A

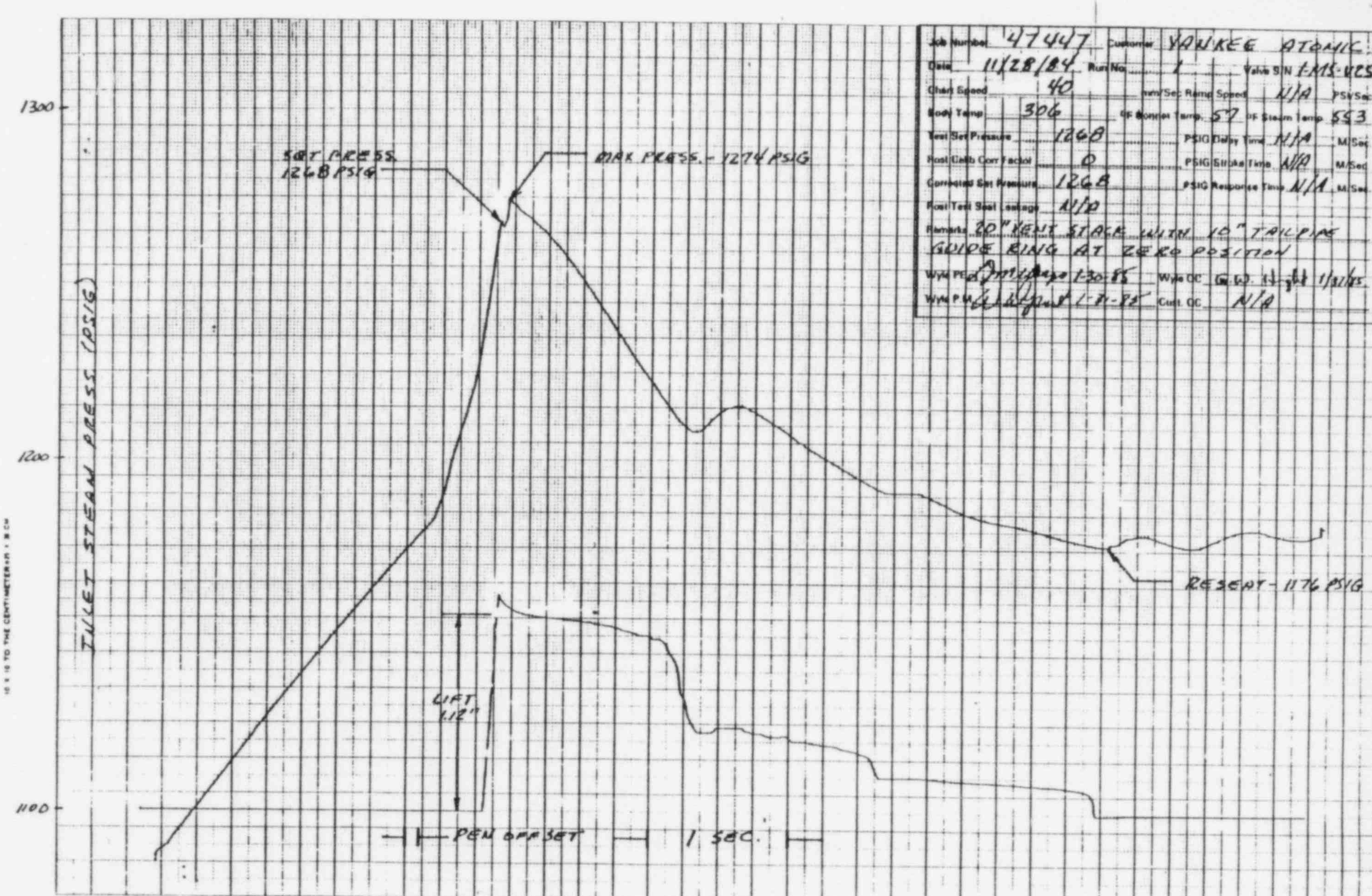
Remarks 18" VENT STACK WITH 10" TAIL PIPE GUIDE RING AT ZERO POSITION

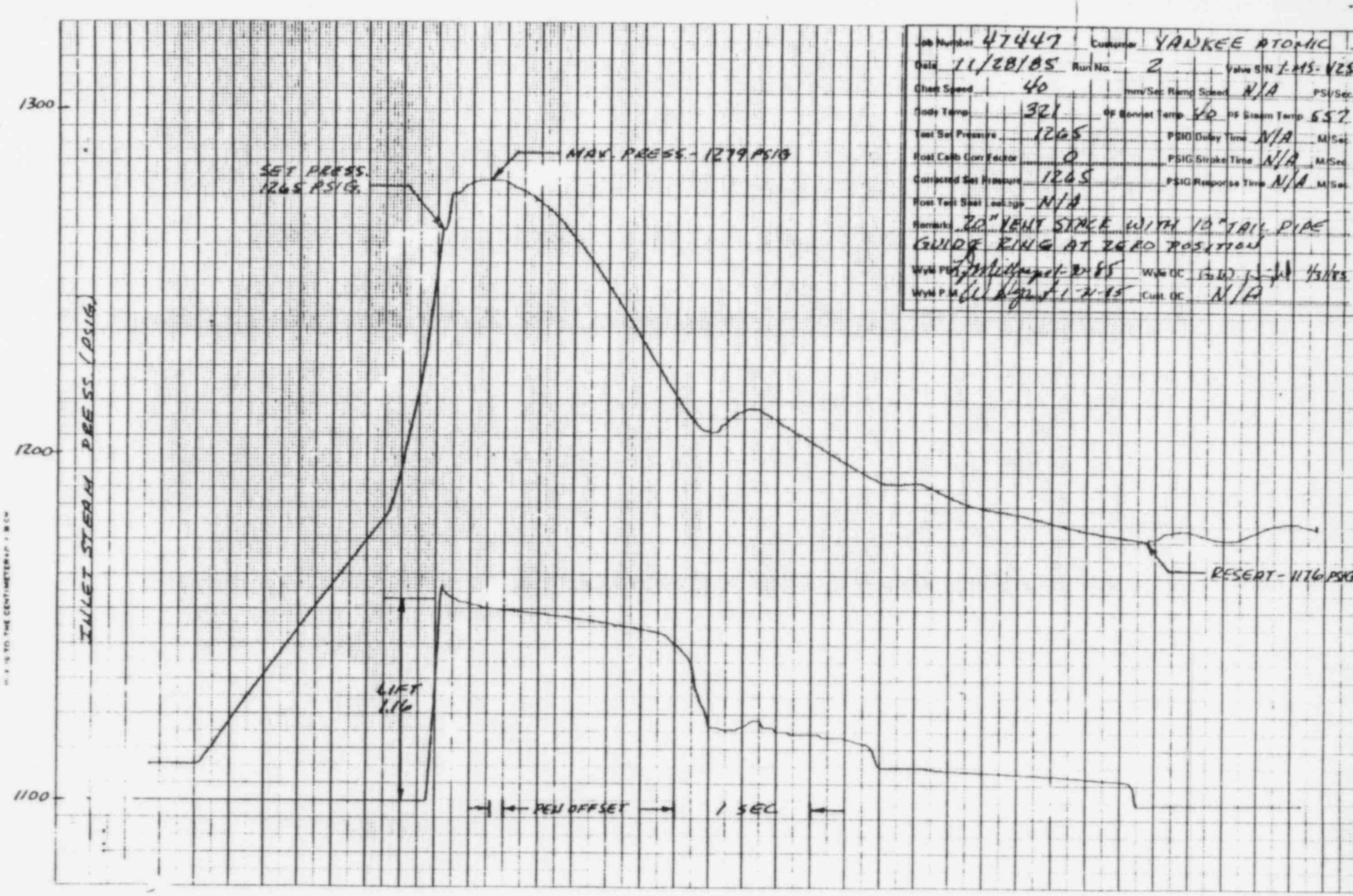
Wyle PE [signature] 1-29-85 Wyle QC G.H. 1/31/85

Wyle P.M. [signature] 1-31-85 Cust. QC N/A

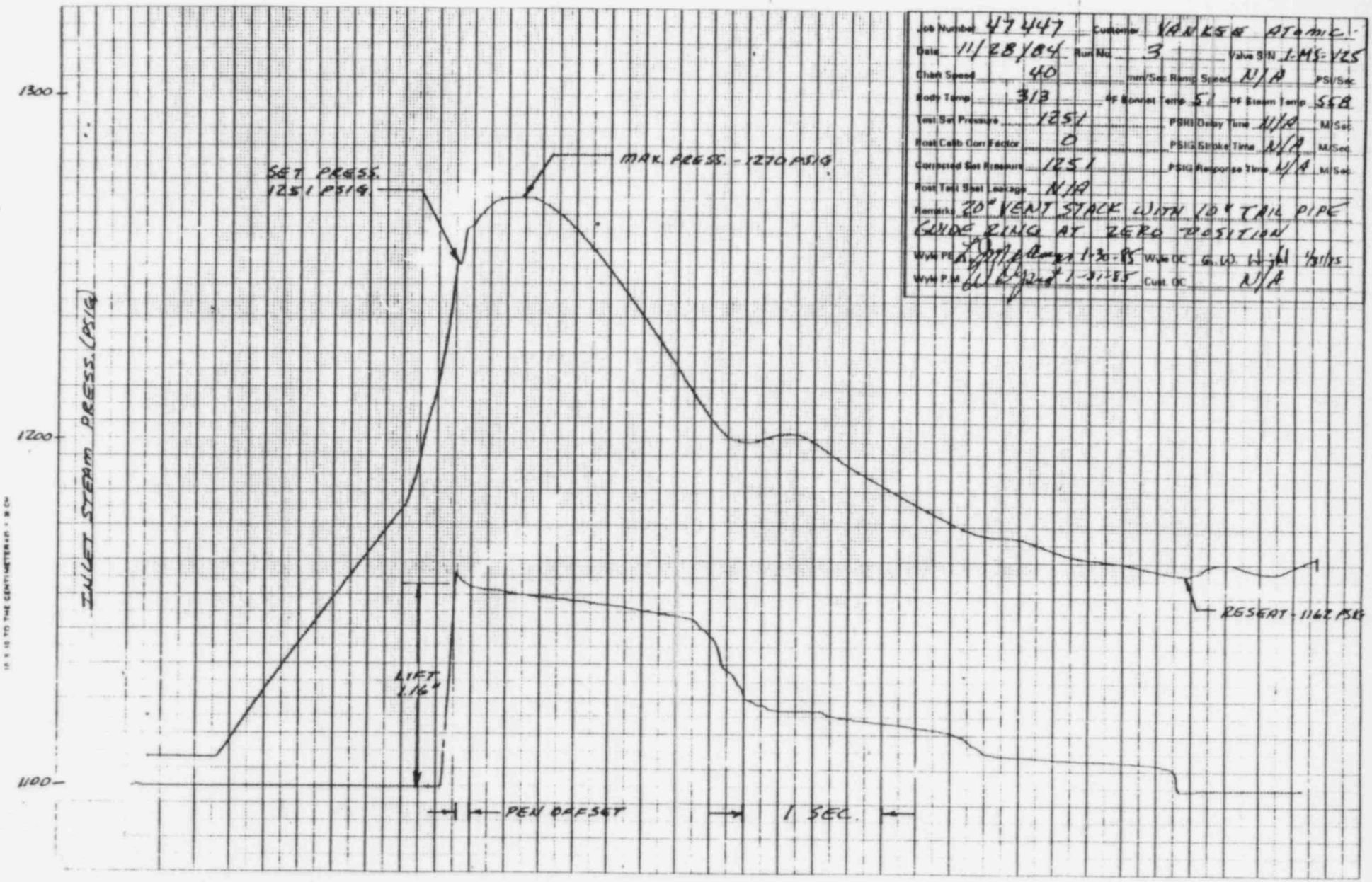
Job Number	47427
Customer	YANKEE ATOMIC
Date	10/19/84
Run No.	10
Valve S/N	I-MS-V25
Chart Speed	20 mm/Sec
Ramp Speed	N/A PSI/Sec
Body Temp	292 °F
Bonnet Temp	156 °F
Steam Temp	563
Test Set Pressure	1250 PSIG
Delay Time	N/A M Sec
Post Calib Corr Factor	0 PSIG
Stroke Time	N/A M Sec
Corrected Set Pressure	1250 PSIG
Response Time	N/A M Sec
Post Test Seat Leakage	N/A
Remarks	18" VENT STACK WITH 10" TAIL PIPE GUIDE RING AT ZERO POSITION
WW PE	[signature] 1-29-85
Wyle QC	G.W. [signature] 1/31/85
WW PM	[signature] 1-31-85
Cust. QC	N/A




Job Number 47447 Customer YANKEE ATOMIC
Date 11/28/84 Run No. 1 Valve S/N 1-MS-425
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 306 °F Bonnet Temp. 57 °F Steam Temp 553
Test Set Pressure 1268 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1268 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK WITH 10" TAILPIPE GUIDE RING AT ZERO POSITION
Wyle PE 1-30-85 Wyle QC 1/31/85
Wyle PM 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS (PSIG)
SET PRESS. 1268 PSIG
MAX PRESS. - 1274 PSIG
RESEAT - 1176 PSIG
LIFT 1.12"
PEN OFFSET
1 SEC.



Job Number 47447 Customer YANKEE ATOMIC
Date 11/28/85 Run No. 2 Valve S/N 1-MS-V25
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 321 °F Bonnet Temp 40 °F Steam Temp 557
Test Set Pressure 1265 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1265 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE
Wyle QC
Wyle P.M.
Cust. QC N/A
MAX. PRESS.- 1279 PSIG
SET PRESS. 1265 PSIG.
INLET STEAM PRESS. (PSIG)
1300
1200
1100
LIFT 1.16
PEN OFFSET
1 SEC
RESEAT - 1176 PSIG


Job Number 47447 Customer YANKEE Atomic
Date 11/28/84 Run No. 3 Valve S/N 1-MS-125
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 313 °F Bonnet Temp 51 °F Steam Temp 558
Test Set Pressure 1251 PSIG Delay Time N/A M/Sec
Boat Cable Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1251 PSIG Response Time N/A M/Sec
Boat Test Shot Leakage N/A
Remarks 20" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
1300
1200
1100
INLET STEAM PRESS. (PSIG)
SET PRESS.
1251 PSIG
MAX. PRESS. - 1270 PSIG
RESEAT - 1162 PSIG
LIFT
2.16"
PEN OFFSET
1 SEC.

Job Number 47447 Customer YANKG ATOMIC

Date 11/28/84 Run No. 4 Valve S/N 1-MS-V25

Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec

Body Temp 300 °F Bonnet Temp 200 °F Steam Temp 559

Test Set Pressure 1232 PSIG Delay Time N/A M/Sec

Final Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec

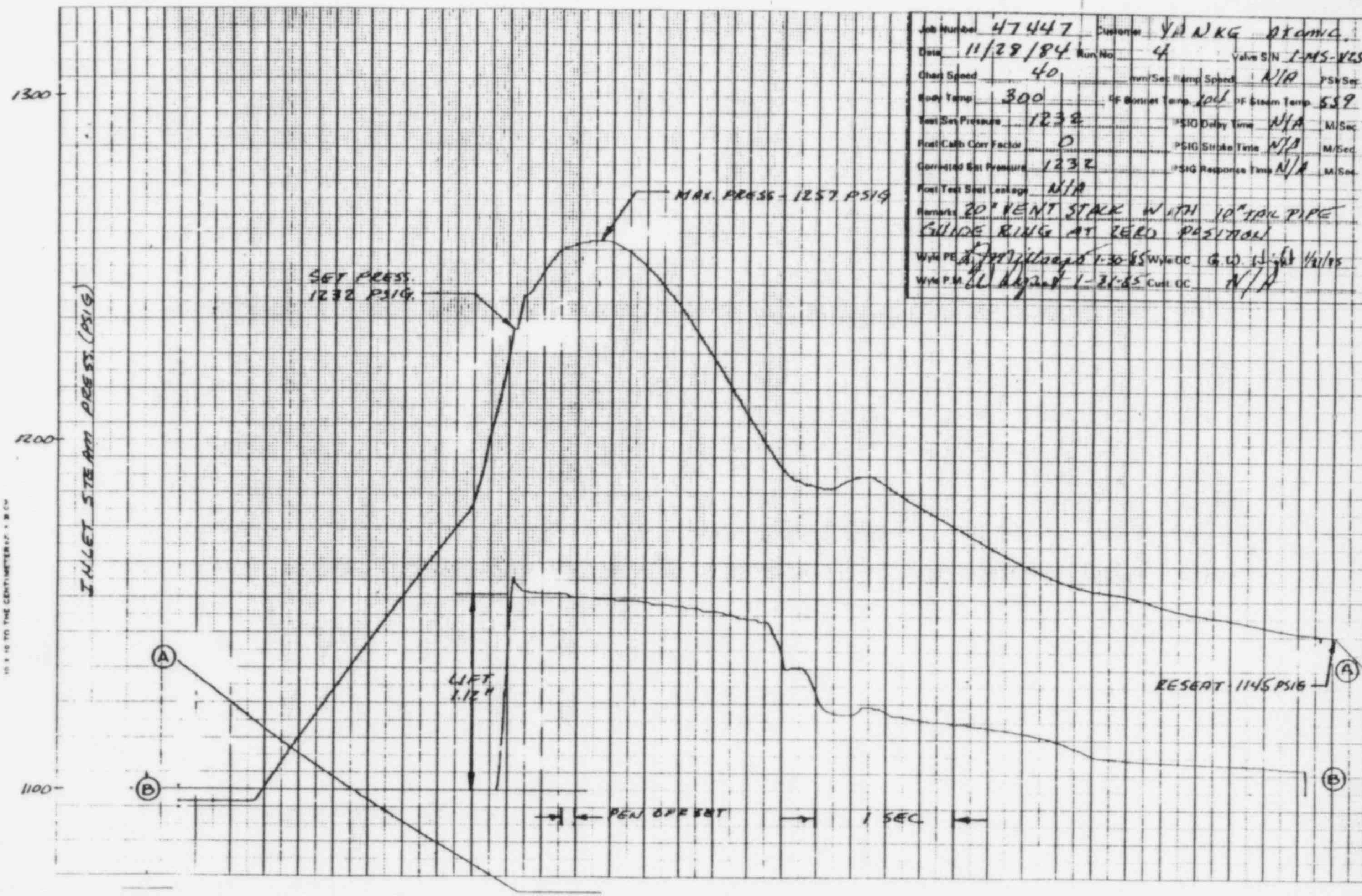
Corrected Set Pressure 1232 PSIG Response Time N/A M/Sec

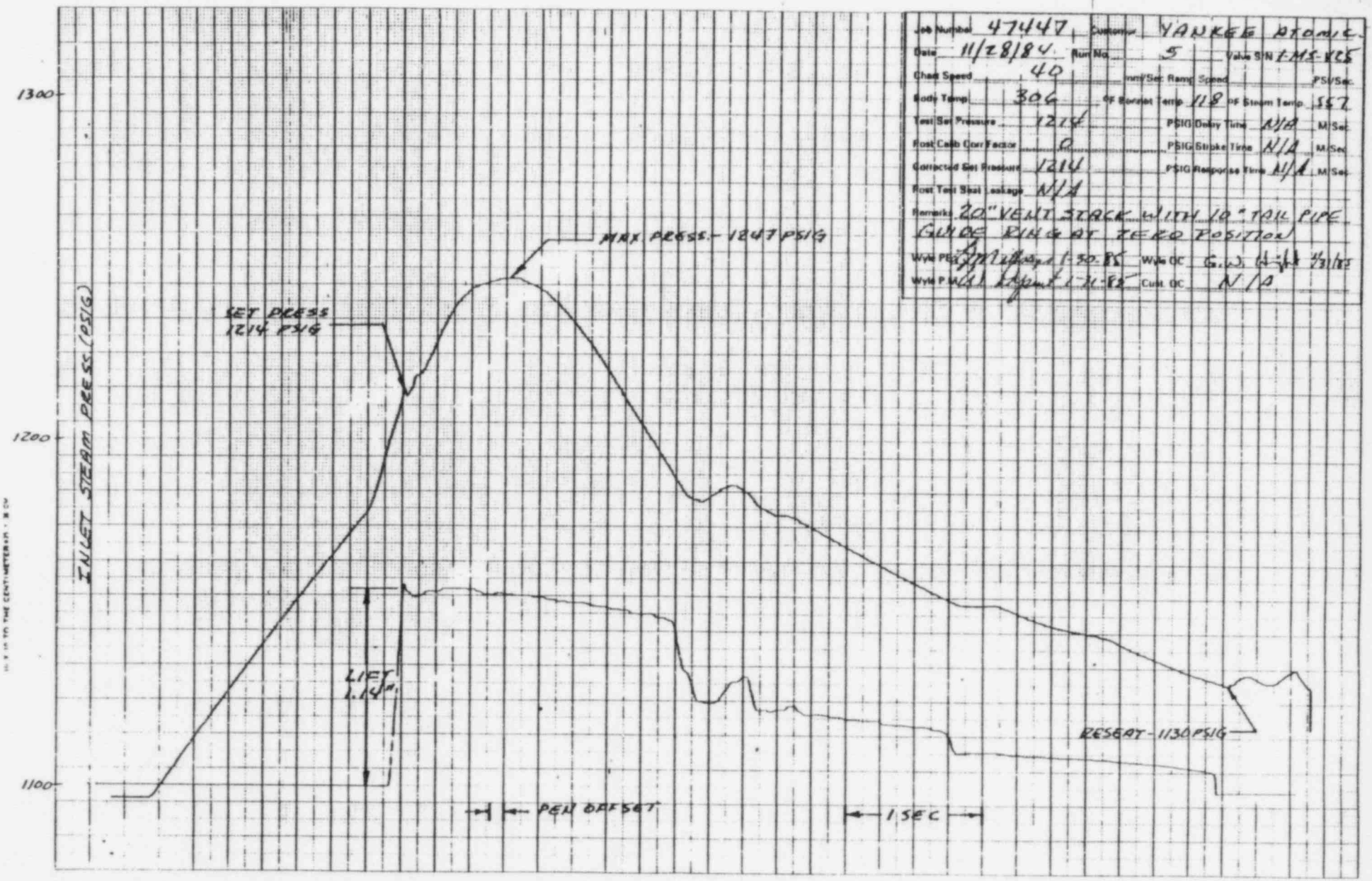
Final Test Seat Leakage N/A

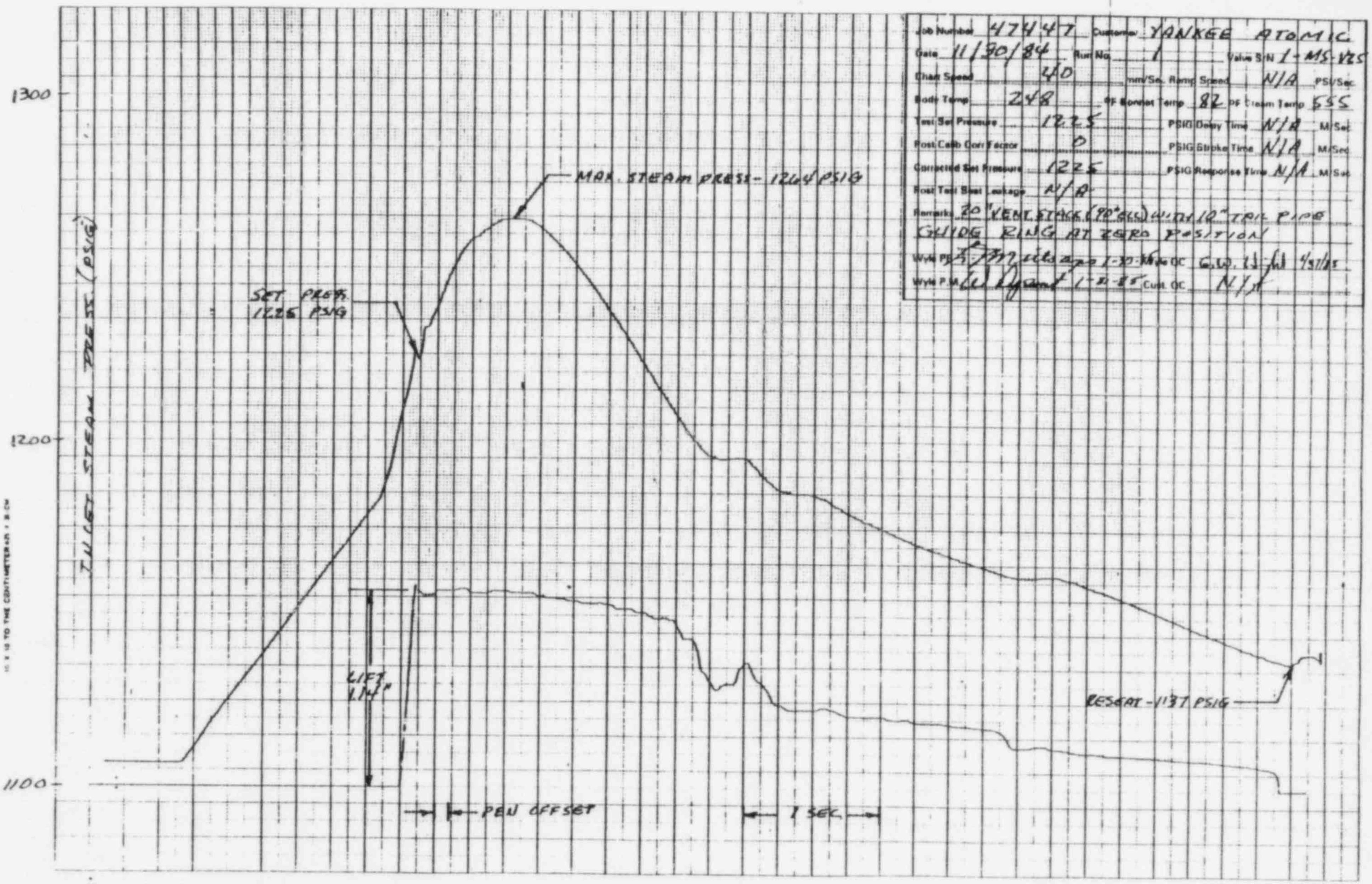
Remarks 20" VENT STACK WITH 10" TAIL PIPE GUIDE RING AT ZERO POSITION

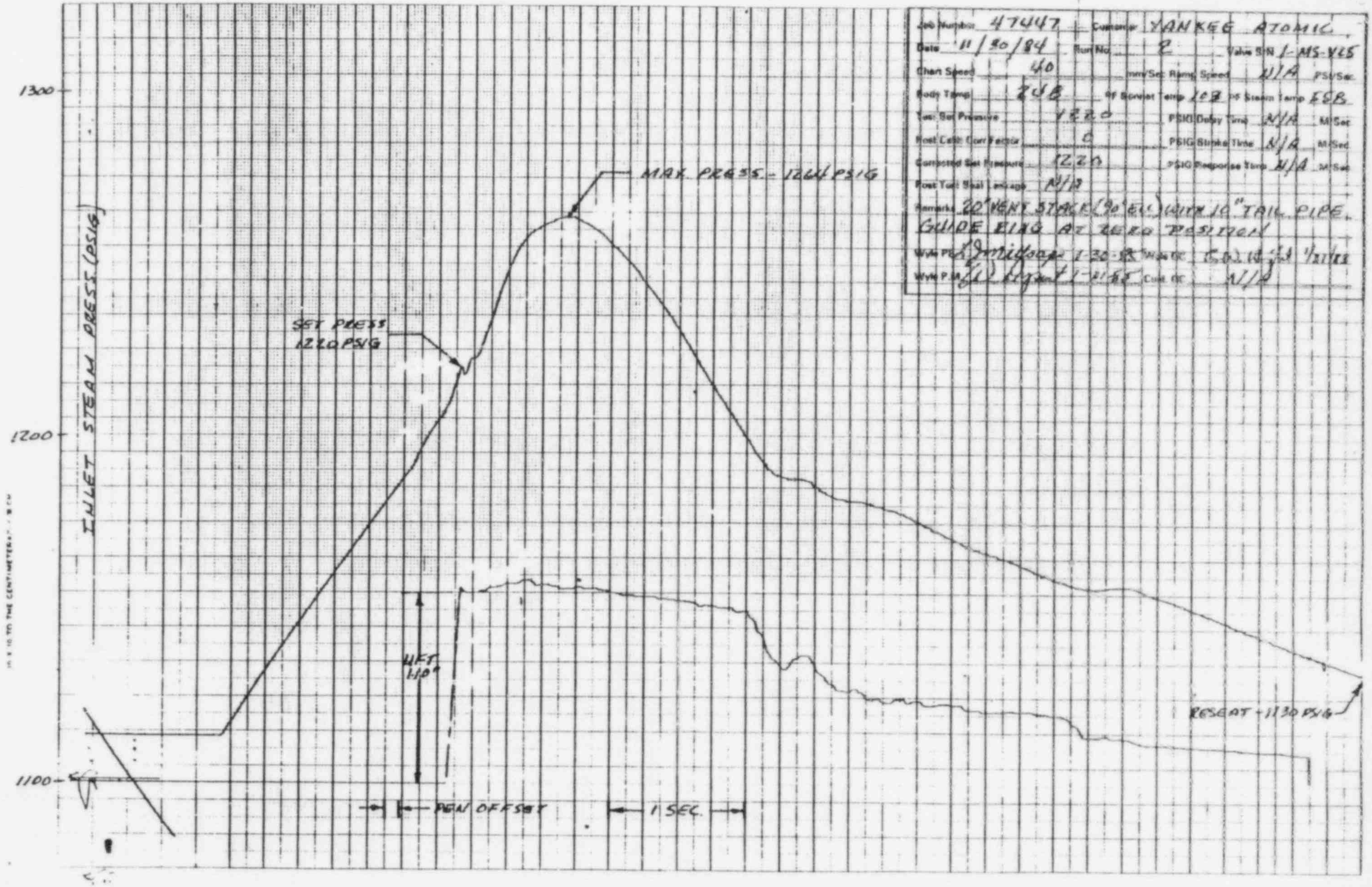
Wyle PE 1-30-85 Wyle QC G.W. 1/31/85

Wyle PM 1-31-85 Cust QC N/A

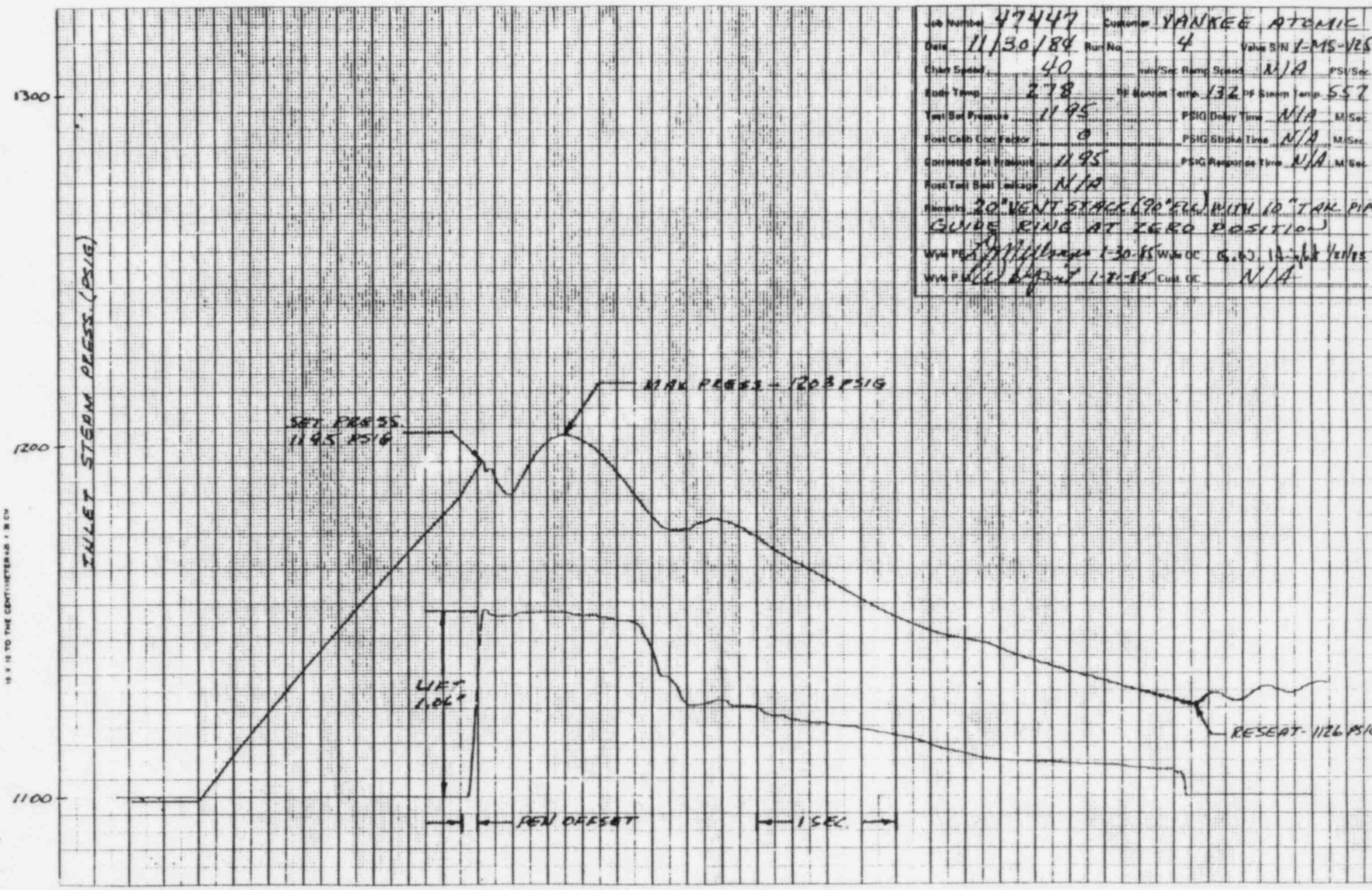



Job Number 47447 Customer YANKEE ATOMIC
Date 11/28/84 Run No. 5 Valve S/N LMS-RCS
Chart Speed 40 mm/Sec Ramp Speed PSI/Sec
Body Temp 306 °F Bonnet Temp 118 °F Steam Temp 557
Test Set Pressure 1215# PSIG Delay Time N/A M/Sec
Post Cold Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1214 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PCN Approved 1-30-85 Wyle QC G.W. 11/28/84
Wyle PWA Approved 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS. (PSIG)
SET PRESS 1214 PSIG
MAX PRESS. - 1247 PSIG
LIFT 1.14"
RESEAT - 1130 PSIG
PEN OFFSET
1 SEC

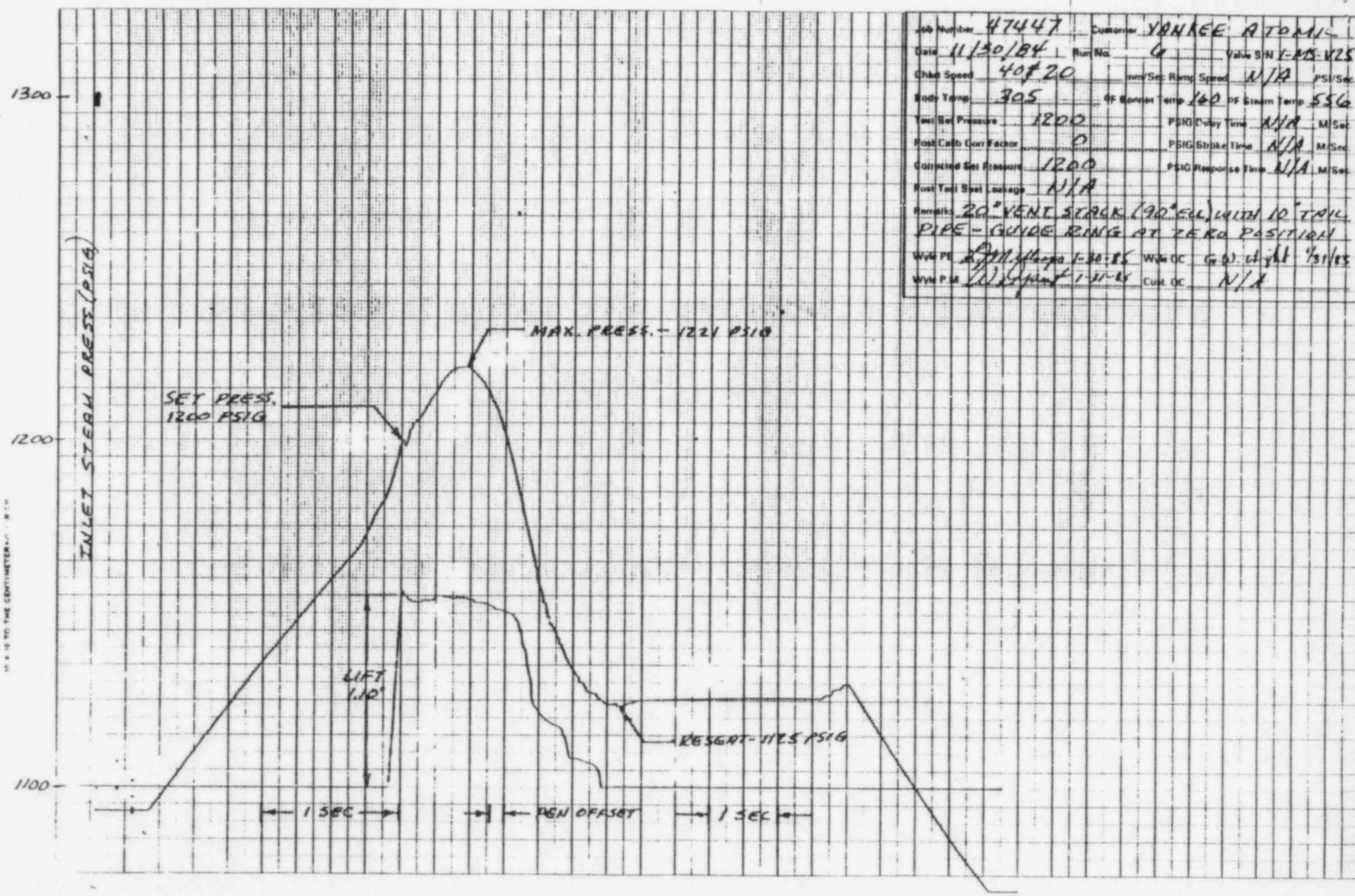

Job Number 47447 Customer YANKEE ATOMIC
Date 11/30/84 Run No. 1 Valve S/N 1-MS-V25
Chart Speed 40 mm/Sec. Ramp Speed N/A PSI/Sec.
Body Temp. 248 °F Bonnet Temp. 82 °F Steam Temp. 555
Test Set Pressure 1225 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1225 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELS) WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE
Wyle P.M.
QC
Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS. (PSIG)
MAX. STEAM PRESS - 1264 PSIG
SET PRESS. 1225 PSIG
LIFT 1.14"
PEN OFFSET
1 SEC.
RESEAT - 1137 PSIG



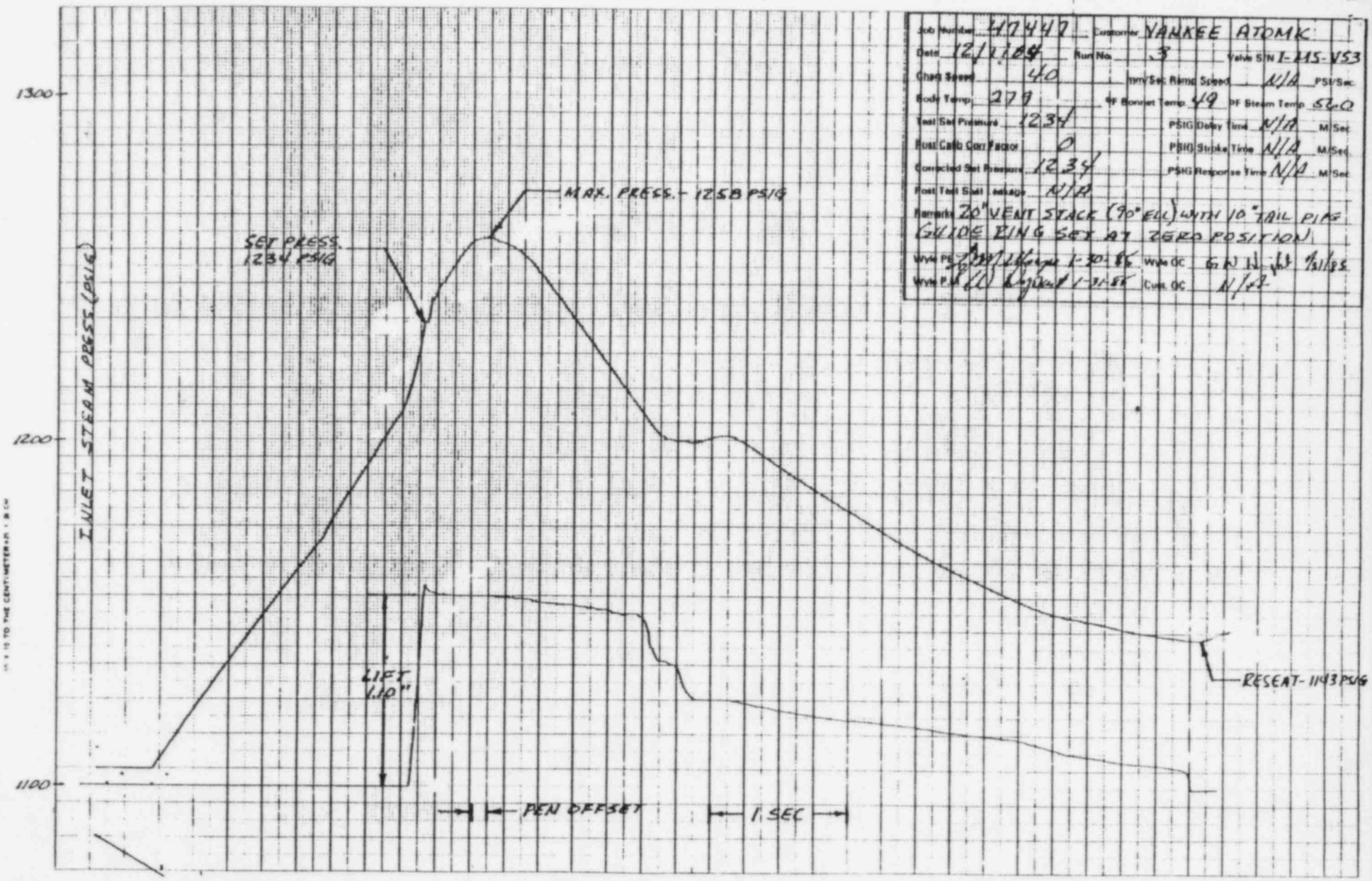
Job Number 47447 Customer YANKEE ATOMIC
Date 11/30/84 Run No. 2 Valve S/N 1-MS-V25
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 248 °F Bonnet Temp 108 °F Steam Temp 558
Test Set Pressure 1220 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1220 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELL) WITH 10" TAIL PIPE. GUIDE RING AT ZERO POSITION
Wyle QC
Cust. QC N/A
MAX PRESS - 1264 PSIG
SET PRESS 1220 PSIG
INLET STEAM PRESS (PSIG)
1300
1200
1100
LIFT .110"
PEN OFFSET
1 SEC.
RESEAT - 1130 PSIG

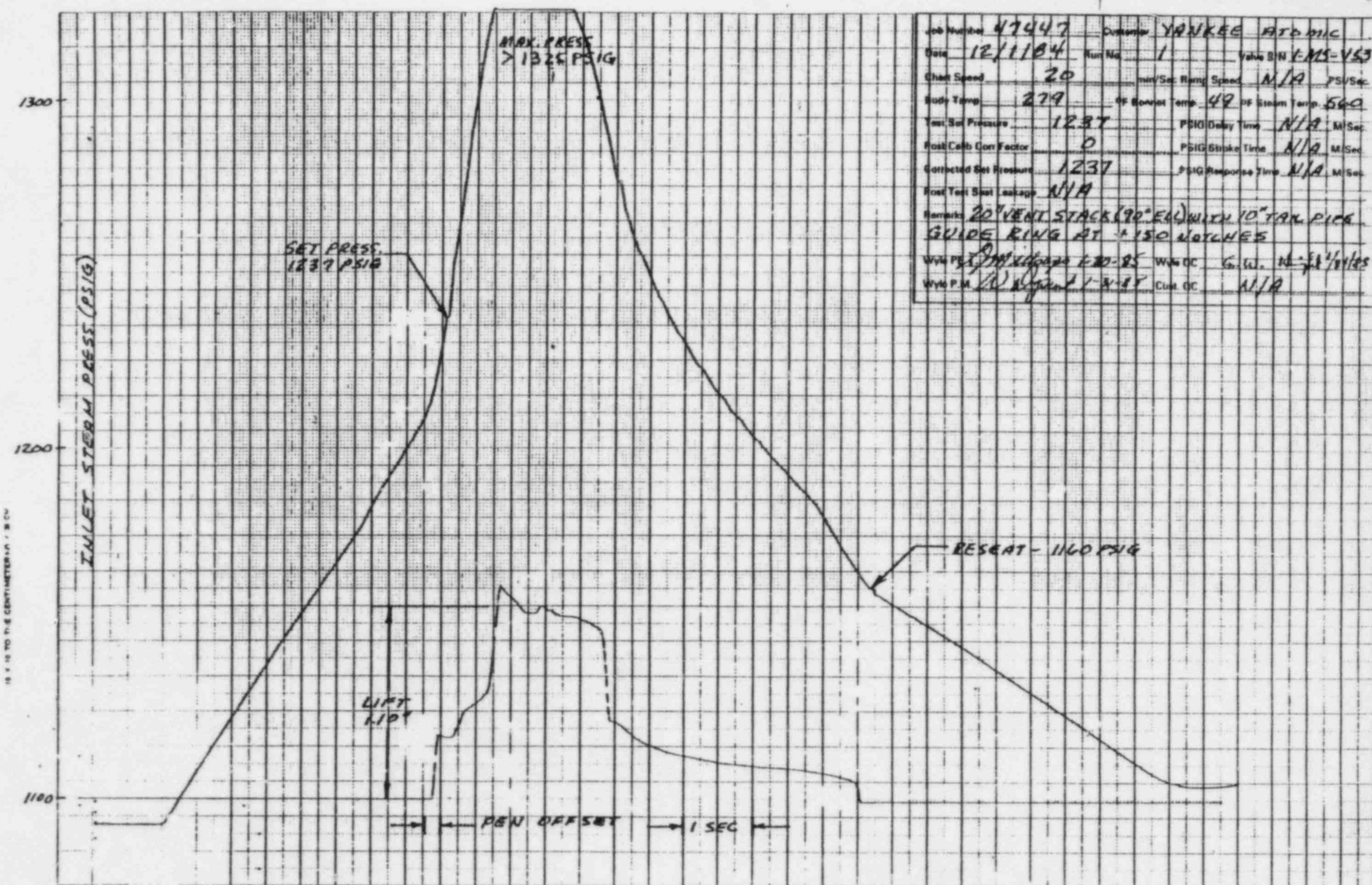


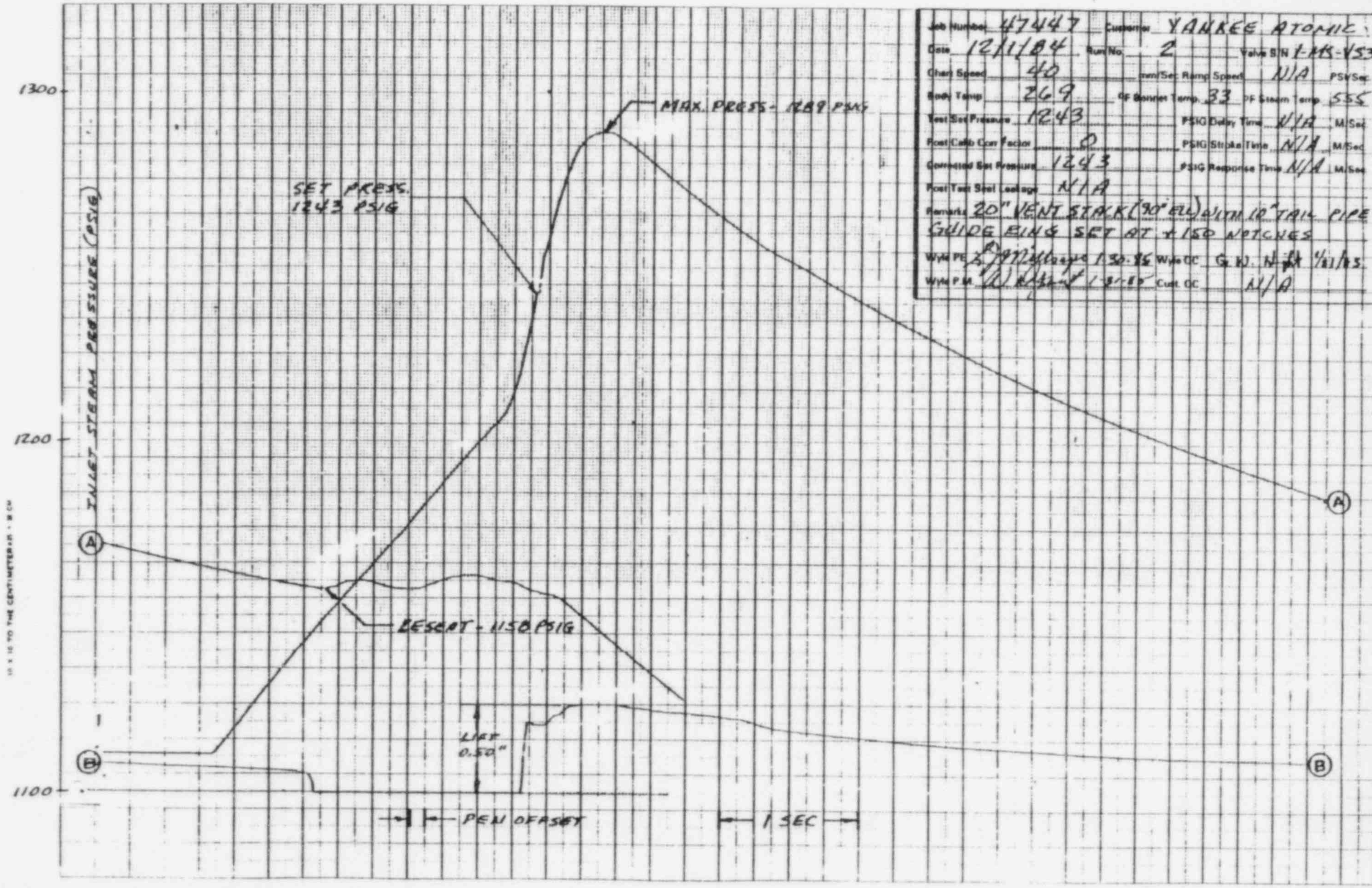
Job Number 47447 Customer YANKEE ATOMIC
Date 11/30/84 Run No. 4 Valve S/N 1-MS-V25
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 278 °F Bonnet Temp 132 °F Steam Temp 557
Test Set Pressure 1195 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1195 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELL) WITH 10" TAIL PIPE
GUIDE RING AT ZERO POSITION
Wyle PE [signature] 1-30-85 Wyle QC [signature] 1/31/85
Wyle PM [signature] 1-31-85 Cust QC N/A



Job Number 47447 Customer YANKEE ATOMIC
Date 11/30/84 Run No. 6 Valve S/N 1-MS-V25
Chart Speed 40/20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp. 305 °F Bonnet Temp 160 °F Steam Temp 556
Test Set Pressure 1200 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1200 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELL) WITH 10" TAIL PIPE - GUIDE RING AT ZERO POSITION
WYLE PE [signature] 1-30-85 Wyle QC G.W. [signature] 1/31/85
WYLE P.M. [signature] 1-31-85 Cust. QC N/A


Job Number 47447 Customer YANKEE ATOMIC
Date 12/1/84 Run No. 3 Valve S/N I-215-V53
Chart Speed 40 mm/Sec Rated Speed N/A PSI/Sec
Body Temp. 279 °F Bonnet Temp. 49 °F Steam Temp 560
Test Set Pressure 1234 PSIG Delay Time N/A M/Sec
Rust Cable Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1234 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELL) WITH 10" TAIL PIPE
GUIDE RING SET AT ZERO POSITION
Wyle PE 7337 Calibrated 1-30-85 Wyle QC GWH 9/21/84
Wyle P.M. 60 Calibrated 1-31-85 Cust. QC N/A
1300
1200
1100
INLET STEAM PRESS. (PSIG)
SET PRESS. 1234 PSIG
MAX. PRESS. - 1258 PSIG
LIFT .110"
RESEAT - 1193 PSIG
PEN OFFSET
1 SEC


Job Number 47447 Customer YANKEE ATOMIC
Date 12/11/84 Run No. 1 Valve S/N 1-MS-V53
Chart Speed 20 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp. 279 °F Bonnet Temp. 49 °F Steam Temp. 560
Test Set Pressure 1237 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1237 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELL) WITH 10" TAIL PIPE
GUIDE RING AT +150 NOTCHES
Wyle P.E. 1-30-85 Wyle QC G.W.
Wyle P.M. 1-31-85 Cust. QC N/A
MAX. PRESS
>1325 PSIG
SET PRESS.
1237 PSIG
RESEAT - 1160 PSIG
INLET STEAM PRESS (PSIG)
1300
1200
1100
LIFT
1.10"
PEN OFFSET
1 SEC



Job Number 47447 Customer YANKEE ATOMIC
Date 12/1/84 Run No. 2 Valve S/N 1-MS-V53
Chart Speed 40 mm/Sec Ramp Speed N/A PSI/Sec
Body Temp 269 °F Bonnet Temp 33 °F Steam Temp 555
Test Set Pressure 1243 PSIG Delay Time N/A M/Sec
Post Calib Corr Factor 0 PSIG Stroke Time N/A M/Sec
Corrected Set Pressure 1243 PSIG Response Time N/A M/Sec
Post Test Seat Leakage N/A
Remarks 20" VENT STACK (90° ELL) WITH 10" TAIL PIPE
GUIDE RING SET AT +150 NOTCHES
Wyle PE 1-30-85 Wyle QC G.W. 1/31/85
Wyle PM 1-31-85 Cust. QC N/A
MAX. PRESS - 1289 PSIG
SET PRESS. 1243 PSIG
RESEAT - 1150 PSIG
INLET STEAM PRESSURE (PSIG)
1300
1200
1100
A
B
LIFT 0.50"
PEN OFFSET
1 SEC

MSSV
Duke Power - Blowdown

[redacted]

Duke Power - Conway - Oconee
Al. Haynes - consult

Never full flow test with LVDT instrumentation
No lift instrum. in plant

will add press switch in disch. (to indicate blowdown valve)

welded-in

Ref. to seat plane — lapping of nozzle affects
hard to measure ring sett. on welded-in valve

Duke study to incr. reliability of MSSV's.
- doing refurbishment

Looking at inservice set press. testing

Zahorsky [redacted]

D/4 → Full ~~Life~~ Flow

PSNH → Back pressure effect

Test + supply per customer spec.

R. Wessman + M. Caruso - ORAB 7-2-85

- Pursue ~~notice bulletin~~. GI takes long time. GL + Bulletin means ~~GRGR~~.
- Possible vendor-group investigation?
- OL requirement?

8/31

Al Domerick 2+784
Mark Caruso 27940

[redacted]

Conv. w. Zhorsky:

- not read test reports yet ?!
- ~~high~~ back pressure effect ("blow back") ?

- Rings set based on lower press. ~~tests~~ + tests on smaller valves

- D/A → full flow

- Other tests are per Customer Specs.