JIM 3086 TORUS VYM 99-148

MEMORANDUM

Vermont Yankee Design Engineering

To D.Girroir / M. Dugan **Date** July 21,1998

From J.C. Fitzpatrick / S.D.Goodwin **Group #** VYM 98/132

Subject Summary of ASME Section XI Subsection IWE Torus Shell & Downcomer Inspections Performed During the 1998 Refueling Outage.

REFERENCES

(a) ASME XI, Subsection IWE, Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Plants, 1992 Edition with 1992 Addenda.

COPY → (b) DE&S -Bolton Memo, C.B.Larsen to J.A.Schaefer(VY), subject: Proposed Strategy for Disposition of ASME XI, IWE Findings in Torus, PSD 41/98 Dated February 6,1998.

COPY → (c) Visual and UT Inspection Data Reports, performed on the Torus for IWE inspections (Attachment A)

(d) VY Design Engineering Memo J.C.Fitzpatrick to D.Girroir/M.Dugan, subject: "External UT Locations on Torus Shell for ASME XI Subsection IWE Inspections", VYM 98/56 dated March 31,1998.

(e) YNSD Calculation for Vermont Yankee: VYC-1032: Torus & Vent System Thickness Requirements, Revision 0, dated December 3,1991.

(f) ASME Section III Nuclear Vessels, 1965 (with Winter 1965 Addenda) and ASME Section VIII, Unfired Pressure Vessels, 1965.

GET COPY → (g) VY Event Report No.97-0307, "Torus Shell Corrosion" dated March 1997

(h) Certified Stress Report, Vernon – II, Vermont Yankee Project Containment Vessel, No. 9-6202-II, October 29,1968, by Chicago Bridge & Iron –Oak Brook Engineering.

(i) Draft Report for Evaluation of VY ASME Section XI Subsection IWE 1998 Torus Inspections, dated July 22,1998.

BACKGROUND

IWE inspections were performed on the Torus bottom interior surface and the lower portions of the downcomers during the 1998 refueling outage. These areas are normally submerged and access was provided during the draining of the Torus for installation of new RHR and Core Spray strainers. The inspections were performed in parallel with sandblasting and re-coating the Torus bottom as part of the CS and RHR strainer replacement EDCR .

The minimum design wall thickness for the Torus bottom plates is 0.584 inches. The thickness of the carbon steel plates used to construct the Torus shell was typically supplied with no significant margin over the design thickness. To assure that the Torus shell remained within design specifications, wall thickness was verified as part of the re-coating effort.

The Design Engineering Mechanical Group was asked to provide assistance in developing a scheme for UT inspections on the Torus external shell to support the re-coating effort and to satisfy ASME Section XI, Subsection IWE requirements.

DISCUSSION

Inspections

Reference(b) outlined the proposed strategy for disposition of ASME Section XI, Subsection IWE, findings in the Torus. The general plan was to perform a initial visual inspection, assess the findings, and then formulate a detailed plan to address both the possible wall loss at locations of degraded coating and for long term monitoring of the Torus external shell and vent header corrosion.

The inspection efforts performed were as follows: Visual inspections of the interior surface of the bottom half of the Torus were performed, see reference(c). A limited number of specific locations were identified with surface corrosion and a significant number of previous coating repairs were identified and tabulated on a per bay basis. Three groups of UT data for the Torus bottom shell were taken based on the visual inspections. The first group were full coverage test strips on the bottom of two bays. The purpose of the test strips was to assess variations in plate thickness and to assess the amount of wall loss attributed to the sandblasting efforts.

The second group was a set of permanently marked discrete locations on the exterior of the Torus. These locations are intended for long term thickness measurements to monitor general corrosion of the bottom of the Torus shell. Given that the new coating will mitigate future corrosion, the 16 to 18 discrete locations in each bay will allow for long term UT monitoring for general corrosion of the Torus shell without draining the Torus. The third group are external UT inspections at local areas of coating degradation identified in the "as-found" visual inspections and a sample of the areas accessible from only one side (under the Torus baffle plates).

Evaluation of Data

Reference(e) was developed to provide acceptable corrosion limits for the Torus and vent system. It is based on the analyses and modifications performed by Teledyne Engineering Services (TES) under the GE Mark I Program. The TES acceptance criteria were based on the maximum accident pressure of 44 Psi. Reference(e) did not consider the ASME code design pressure of 56. Psi. V.Y. ER 97-0307, reference (g) was written to reflect the fact that the TES calculation did not consider the ASME code design pressure. The ER also required that VYC-1032, Revision 0 be revised to reflect the 56. Psi. ASME code design pressure.

The thickness data was assessed against original design code requirements and analyses in reference(h). The general area thickness measurements were found to be at code required thickness. No significant margin exists at the Torus bottom center. VYC-1032 is in the process of being revised to reflect the 56. Psi. code design pressure. When the revision is complete, it will provide acceptable corroded thickness for the Torus shell based on the ASME code design pressure.

CONCLUSIONS

Reference(i) summarizes the inspection efforts and evaluation of the UT inspection data. It will be formalized upon completion of the revision to VYC-1032, reference(e). The following conclusions are considered preliminary until the revision to VYC-1032 is complete.

- There were no significant areas of general corrosion/metal loss identified during the 1998 refueling outage. Isolated small areas of surface corrosion and coating damage were observed, documented, and evaluated. No significant wall loss was identified.

- The entire bottom half of the interior surface of the Torus was sandblasted and re-coated during the 1998 refueling outage. Application of the new coating will mitigate future corrosion. Visual inspections performed during future refueling outages under ASME Section XI Subsection IWE requirements will insure the condition of the coating is monitored and repaired as required.

- A permanent set of UT locations has been established on the exterior bottom of the Torus shell to provide a means for monitoring general area wall thickness without draining the Torus.

- The Torus shell thickness at bottom center is at the design thickness. There is no margin for general corrosion at the bottom center of each bay.

- There is margin for localized corrosion on the exterior shell, the vent piping, and downcomers. It is dependent on the size and depth of the corroded area and the location of the corrosion. Calculation VYC-1032 is under revision to reflect the 56. Psi. code design pressure. When the revision is complete it will provide corroded thickness limits and acceptance criteria consistent with the original design code, reference(f).

These appear to conflict ?

James C. Fitzpatrick
Senior Engineer – Mechanical/Structural Dept.

Scott D.Goodwin
Supervisor – Mechanical/Structural Dept.

cc JHCallaghan

Tab	ISI Report No.	Date	Contents
1	YA-VT-11-10	3/24/98	As-found Visual Inspection of: a) Torus interior bottom (below water line). b) Downcomer bottom end, internal & external.
2	N/A	3/35/98	Location and Map of previous underwater coating repairs in bottom of Bay 8.
3	N/A	3/24/98	Location and map of previous underwater coating repairs in bottom of Bay 16.
4	YA-UT-112-104 YA-UT-112-105	4/4/98 4/4/98	Bay 8 Bottom – BEFORE – Sandblasting. (2ft. wide full bay length test strip with 2" grids to monitor effects of coating removal on plate thickness.)
5		4/10/98	Bay 8 Bottom – AFTER – Sandblasting.
6	YA-UT-112-84	4/4/98	Bay 16 Bottom – BEFORE – Sandblasting. (2ft. wide full bay length test strip with 2" grids to monitor effects of coating removal on plate thickness.)
7	YA-UT-112-85`	4/9//98	Bay 16 Bottom – AFTER – Sandblasting.
8			Torus Bottom Plate Long Term Monitoring Locations (16 to 18 per Bay) BEFORE SANDBLASTING
	YA-UT-112-29	3/28/98	Bay 1
	YA-UT-112-30	" "	Bay 2
	YA-UT-112-31	" "	Bay 3
	YA-UT-112-32	" "	Bay 4
	YA-UT-112-33	" "	Bay 5
	YA-UT-112-34	3/27/98	Bay 6
	YA-UT-112-35	" "	Bay 7
	YA-UT-112-36	" "	Bay 8
	YA-UT-112-37	" "	Bay 9
	YA-UT-112-38	" "	Bay 10
	YA-UT-112-39	" "	Bay 11
	YA-UT-112-40	" "	Bay 12
	YA-UT-112-41	3/28/98	Bay 13
	YA-UT-112-42	" "	Bay 14
	YA-UT-112-43	" "	Bay 15
	YA-UT-112-44	" "	Bay 16
	YA-UT-112-45	3/30/98	Bays 2,4,7,14,&15 Confirmatory Readings
	YA-UT-112-96	4/13/98	Bays 2,4,7,10,14, &15 Supplemental Locations (Pts. 17 & 18)
9			Torus Bottom Plate Long Term Monitoring Locations AFTER SANDBLASTING
	YA-UT-112-119	4/22/98	Bays 1 to 8 and 8 to 16
	YA-UT-112-128	5/9/98	Bay 7
10	YA-UT-112-125 YA-UT-112-126	5/8/98 5/8/98	Bay 4: Torus Bottom Plate Thickness Under Baffle Plates. Bay 15: Torus Bottom Plate Thickness Under Baffle Plates.
11	YA-UT-112-127 YA-UT-112-129	5/9/98 5/9/98	Bay 7: Local indications at temporary opening. " " " " "

Tab	ISI Report No.	Date	Contents
12		3/31/98	Bay 1 – Area 1: As-found Local Area UT Examination
13	YA-UT-112-27	3/29/98	Bay 2 – Area 1: As-found Local Area UT Examination
14			Bay 2 – Area 2: As-found Local Area UT Examination
		3/31/98	(6"x6" square area) Pre-Sandblast
	YA-UT-112-131	5/9/98	(6"x6" square area) Post-Sandblast
	YA-UT-112-133	5/12/98	(expanded 12"x12" area) Post-Sandblast.
15	YA-UT-112-26	3/29/98	Bay 5 – Area 1: As-found Local Area UT Examination.
	YA-UT-112-46	3/30/98	Bay 5 – Area 1: Confirmatory Readings
16	YA-UT-112-25	3/29/98	Bay 5 – Area 2: As-found Local Area UT Examination
	YA-UT-112-46	3/30/98	Bay 5 – Area 2: Confirmatory Readings
17	YA-UT-112-67	4/5/98	Bay 5 – Area 1 (Inside) : As-found Local Area UT Examination
	YA-UT-112-68	4/4/98	" " " " " "
18	YA-UT-112-48	3/31/98	Bay 12 – Area 1: As-found Local Area UT Examination.
19	YA-UT-112-24	3/29/98	Bay 12 – Area 2: As-found Local Area UT Examination.
	YA-UT-112-46	3/30/98	Bay 12 – Area 2: Confirmatory Readings (26DL+)
	YA-UT-112-47	3/30/98	Bay 12 – Area 2: Confirmatory Readings (A-Scan)
20		4/1/98	Bay 15 – Area 1: As-found Local Area UT Examination
21		4/1/98	Bay 15 – Area 2: As-found Local Area UT Examination
22			After sandblasting / prior to re-coating: Torus interior Visual Inspections.
	YA-VT-11-25	4/27/98	Torus Bottom Bays 1 to 6, 10 to 16.
	YA-VT-11-27	4/26/98	Torus Bottom Bays 7, 8, & 9
	YA-VT-11-28	4/26/98	Downcomers in Bays 1 to 16.
	YA-VT-11-48	5/6/98	Bay 7 Plate from Torus temporary access.
23	YA-UT-112-123	4/30/98	Local UT Examinations at locations identified as roller lap marks and/or raised ridges in Bays 4,11,12,15, & 16.

Pg 1 of 3

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-133

PLANT VY OUTAGE 20 DRAWING NA REV. NA

SYSTEM TORUS COMPONENT/WELD NO. BAY 2 AREA 2 (EXPANSION) EN NA

LOCATION RB 213'

MATERIAL: CS PRODUCT FORM: PLATE APPROX. THICK.: .6

INSTRUMENT MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

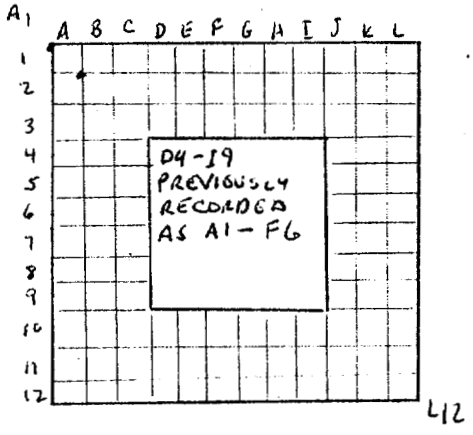
TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 89303 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 SIZE: .312

CAL. BLOCK MATERIAL: CS 93-6691 PRODUCT FORM: STEP WEDGE THICKNESSES: .25, .5, .75, 1.0

CALIBRATION TIMES: INITIAL: 1240 CHECK: NA CHECK: NA CHECK: NA FINAL: 1310

THERM S/N 122927 CAL BLK TEMP 70° COMP TEMP 66°

SKETCH WITH RESULTS:



SEE DATA SHEET # YA-UT-112-131 FOR POST BLAST THICKNESSES in LOCATIONS A1-F6.

5.12.98

Evaluation Required: YES NO

EXAMINER [signature] LEVEL II DATE 5/12/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 5-12-98

COGNIZANT ENGINEER N/A DATE N/A

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Pg 2 of 3

YA-UT-112-133

Component ID: B2A2X
Datafile(s): B2A2X

	A	B	C	D	E	F	G	H	I	J	K	L	Max	Min	Del_T	Ave
00001	0.573	0.570	0.572	0.571	0.573	0.572	0.572	0.571	0.572	0.571	0.573	0.574	0.574	0.570	0.004	0.572
00002	0.570	0.570	0.568	0.571	0.571	0.572	0.570	0.568	0.570	0.569	0.569	0.571	0.572	0.568	0.004	0.570
00003	0.572	0.570	0.571	0.571	0.570	0.572	0.570	0.571	0.570	0.569	0.571	0.570	0.572	0.569	0.003	0.571
00004	0.569	0.569	0.570							0.569	0.569	0.568	0.570	0.568	0.002	0.569
00005	0.572	0.570	0.570							0.569	0.571	0.571	0.572	0.569	0.003	0.570
00006	0.570	0.571	0.571							0.568	0.570	0.571	0.571	0.568	0.003	0.570
00007	0.570	0.572	0.570							0.570	0.569	0.572	0.572	0.569	0.003	0.570
00008	0.572	0.571	0.571							0.571	0.572	0.573	0.573	0.571	0.002	0.572
00009	0.572	0.571	0.571							0.571	0.572	0.573	0.573	0.571	0.002	0.572
00010	0.572	0.572	0.571	0.571	0.571	0.573	0.572	0.572	0.573	0.573	0.572	0.574	0.574	0.571	0.003	0.572
00011	0.571	0.571	0.572	0.571	0.572	0.572	0.573	0.572	0.573	0.572	0.574	0.571	0.574	0.571	0.003	0.572
00012	0.570	0.569	0.571	0.571	0.571	0.572	0.571	0.572	0.572	0.572	0.572	0.572	0.572	0.569	0.003	0.571
Max	0.573	0.572	0.572	0.571	0.573	0.573	0.573	0.572	0.573	0.573	0.574	0.574				
Min	0.569	0.569	0.568	0.571	0.570	0.572	0.570	0.568	0.570	0.568	0.569	0.568				
Del_T	0.004	0.003	0.004	0.000	0.003	0.001	0.003	0.004	0.003	0.005	0.005	0.006				
Ave	0.571	0.570	0.571	0.571	0.571	0.572	0.571	0.571	0.572	0.570	0.571	0.572				

LII 5/12/98

LII 5-12-98

5-12-98

YA-UT-112-133 Pg 3 of 3

STATISTICS

Component ID: B2A2X

Datafile(s): B2A2X

COLUMN:

Lowest Value: 0.568 L

Highest Value: 0.574 L

Lowest Del_T: 0.000 D

Highest Del_T: 0.006 L

ROW:

Lowest Value: 0.568 00006

Highest Value: 0.574 00011

Lowest Del_T: 0.002 00009

Highest Del_T: 0.004 00002

Overall Average Value: 0.571

L-II 5/12/98

L-II 5-12-98

5-12-98

Pg 1 of 3

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-131

PLANT VY CUTAGE 20 DRAWING NA REV. NA

SYSTEM TORUS COMPONENT/WELD NO. BAY 2 AREA 2 EN NA

LOCATION RB 213'

MATERIAL: CS PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT: MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

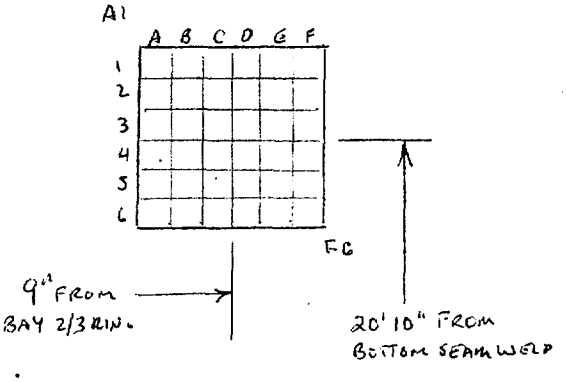
TRANSDUCER MAKE/MODEL: PANAMETRICS SIN 69315 D791-RM MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 SIZE: .312

CAL. BLOCK MATERIAL: CS 93-6691 PRODUCT FORM: STEP WEDGE THICKNESSES: .25, .5, .75, 1.0

CALIBRATION TIMES: INITIAL: 2100 CHECK: NA CHECK: NA CHECK: NA FINAL: 2120

THERMO S/N 162579 CAL BLK TEMP 73° COMP TEMP 70°

SKETCH WITH RESULTS:



Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 5/9/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 5-11-98

COGNIZANT ENGINEER N/A DATE N/A

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

YA-UT-112-131 Pg 2 of 3

Component ID: B2A2AFT
Datafile(s): B2A2AFT

	A	B	C	D	E	F	Max	Min	Del_T	Ave
00001	0.569	0.568	0.569	0.569	0.569	0.568	0.569	0.568	0.001	0.569
00002	0.567	0.568	0.568	0.568	0.568	0.567	0.568	0.567	0.001	0.568
00003	0.569	0.568	0.567	0.568	0.569	0.568	0.569	0.567	0.002	0.568
00004	0.569	0.569	0.569	0.567	0.568	0.568	0.569	0.567	0.002	0.568
00005	0.569	0.570	0.569	0.570	0.569	0.569	0.570	0.569	0.001	0.569
00006	0.569	0.569	0.570	0.569	0.569	0.570	0.570	0.569	0.001	0.569
Max	0.569	0.570	0.570	0.570	0.569	0.570				
Min	0.567	0.568	0.567	0.567	0.568	0.567				
Del_T	0.002	0.002	0.003	0.003	0.001	0.003				
Ave	0.569	0.569	0.569	0.569	0.569	0.568				

TMA Shearer LII 5/9/98

SMP Sanger 5-11-98

YA-UT-112-131 Pg 3 of 3

STATISTICS

Component ID: B2A2AFT

Datafile(s): B2A2AFT

COLUMN:

Lowest Value: 0.567 F

Highest Value: 0.570 F

Lowest Del_T: 0.001 E

Highest Del_T: 0.003 F

ROW:

Lowest Value: 0.567 00004

Highest Value: 0.570 00006

Lowest Del_T: 0.001 00006

Highest Del_T: 0.002 00004

Overall Average Value: 0.569

MA Shearer LII 5/9/98

GMP Sanger 5-11-98

THICKNESS DATA SHEET

DATA SHEET NO. N/A

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 15 AREA 2 EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT MAKE: PANAMETRICS MODEL: 26DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

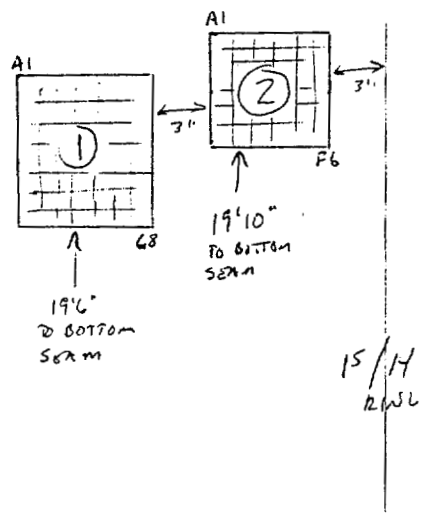
TRANSDUCER MAKE/MODEL: PANAMETRICS S/N 89303 D791-RM MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: .25", .50", .75"

CALIBRATION TIMES: INITIAL: 0300 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 0420

SKETCH WITH RESULTS:

THERMO S/N 162557
CAL BLK TEMP 73°
COMP. TEMP 75°



Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 4/1/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4-1-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) DATE

Component ID: B15A2
Datafile(s): B15A2

	A	B	C	D	E	F	Max	Min	Del_T	Ave
00001	0.601	0.600	0.601	0.597	0.601	0.602	0.602	0.597	0.005	0.600
00002	0.594	0.600	0.601	0.598	0.598	0.603	0.603	0.594	0.009	0.599
00003	0.600	0.600	0.600	0.590	0.599	0.603	0.603	0.590	0.013	0.599
00004	0.599	0.584	0.585	0.600	0.601	0.603	0.603	0.584	0.019	0.595
00005	0.587	0.598	0.599	0.599	0.600	0.543	0.600	0.543	0.057	0.588
00006	0.598	0.596	0.599	0.598	0.598	0.602	0.602	0.596	0.006	0.598

Max	0.601	0.600	0.601	0.600	0.601	0.603
Min	0.587	0.584	0.585	0.590	0.598	0.543
Del_T	0.014	0.016	0.016	0.010	0.003	0.060
Ave	0.596	0.596	0.598	0.597	0.600	0.593

THE LOW READING AT LOCATION F5 IS ISOLATED AND APPEARS TO BE LESS THAN THE DIAMETER OF THE TRANSDUCER (.312")

MASheaw LEF 4/1/98

4.1.98

STATISTICS

Component ID: B15A2

Datafile(s): B15A2

COLUMN:

Lowest Value: 0.543 F

Highest Value: 0.603 F

Lowest Del_T: 0.003 E

Highest Del_T: 0.060 F

ROW:

Lowest Value: 0.543 00005

Highest Value: 0.603 00004

Lowest Del_T: 0.005 00001

Highest Del_T: 0.057 00005

Overall Average Value: 0.597

TMAsheuer LII 4/1/98

SLP Sugr 4.1.98

THICKNESS DATA SHEET

DATA SHEET NO. N/A

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 15 AREA 1 EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT:
MAKE: PANAMETRICS MODEL: 26DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

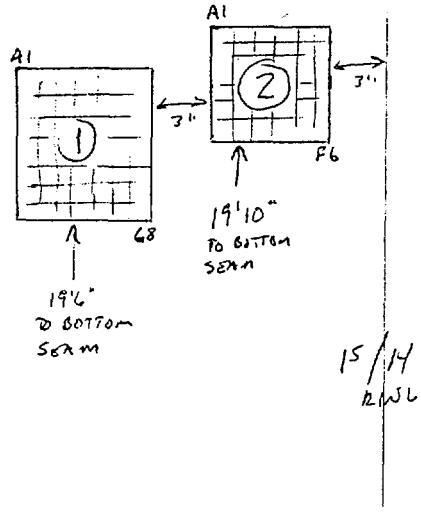
TRANSDUCER
MAKE/MODEL: PANAMETRICS S/N 89303 D791-RM MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK
MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: .125", .50", .75"

CALIBRATION TIMES:
INITIAL: 0300 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 0420

SKETCH WITH RESULTS:

THERMO S/N 162557
CAL BLK TEMP 73°
COMP TEMP 75°



Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 4/1/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4.1.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) DATE

Component ID: B15A1
Datafile(s): B15A1

	A	B	C	D	E	F	G	Max	Min	Del_T	Ave
00001	0.599	0.603	0.603	0.601	0.602	0.600	0.600	0.603	0.599	0.004	0.601
00002	0.601	0.601	0.601	0.602	0.599	0.599	0.601	0.602	0.599	0.003	0.601
00003	0.602	0.602	0.601	0.602	0.600	0.599	0.599	0.602	0.599	0.003	0.601
00004	0.601	0.599	0.601	0.600	0.601	0.597	0.601	0.601	0.597	0.004	0.600
00005	0.603	0.602	0.602	0.602	0.601	0.599	0.598	0.603	0.598	0.005	0.601
00006	0.600	0.601	0.600	0.601	0.600	0.597	0.599	0.601	0.597	0.004	0.600
00007	0.598	0.600	0.601	0.600	0.601	0.597	0.600	0.601	0.597	0.004	0.600
00008	0.601	0.599	0.599	0.602	0.600	0.599	0.599	0.602	0.599	0.003	0.600
Max	0.603	0.603	0.603	0.602	0.602	0.600	0.601				
Min	0.598	0.599	0.599	0.600	0.599	0.597	0.598				
Del_T	0.005	0.004	0.004	0.002	0.003	0.003	0.003				
Ave	0.601	0.601	0.601	0.601	0.601	0.598	0.600				

JMAshcraft - EI 4/1/98

SWD Dugan 4.1.98

STATISTICS

Component ID: B15A1

Datafile(s): B15A1

COLUMN:

Lowest Value: 0.597 F

Highest Value: 0.603 C

Lowest Del_T: 0.002 D

Highest Del_T: 0.005 A

ROW:

Lowest Value: 0.597 00007

Highest Value: 0.603 00005

Lowest Del_T: 0.003 00008

Highest Del_T: 0.005 00005

Overall Average Value: 0.600

TMAshcraft III 4/1/98

SLP Sugar 4-1-98

THICKNESS DATA SHEET

DATA SHEET NO. N/A

PLANT Vermont Yankee OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM Torus COMPONENT/WELD NO. Bay 1 area 1 EN N/A

LOCATION Inside torus Bay 1

MATERIAL: CS PRODUCT FORM: Plate APPROX. THICK.: .584"

INSTRUMENT MAKE: Panametrics MODEL: 26 DL+ SERIAL NO.: 93134807

CRT ☐ DIGITAL ☒ S/N 69315 HORIZONTAL LINEARITY PERFORMED ☐

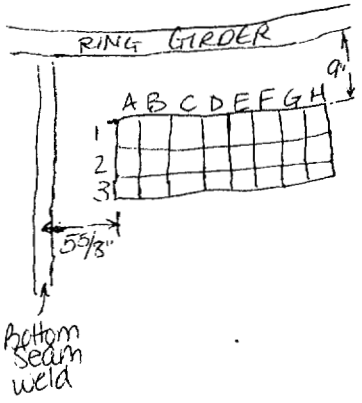
TRANSDUCER MAKE/MODEL: Panametrics D791RM MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: CS S/N 93-6689 PRODUCT FORM: STEP THICKNESSES: .250", .500", .750", 1.0"

CALIBRATION TIMES: INITIAL: 1542 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 1605

SKETCH WITH RESULTS: Thermo S/N 162556 calblk-72°F comp-70°F

Bay 1 area 1 located 9" from 16/1 Ring girder, starting at 55/8" from ℄ seam weld.



Evaluation Required: (YES) NO

EXAMINER Janet L Miles / Jerry [illegible] LEVEL II/II DATE 3/31/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [illegible] DATE 4.1.98

COGNIZANT ENGINEER [illegible] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) DATE

Component ID: BAY1A1
Datafile(s): BAY1A1

	A	B	C	D	E	F	G	H	Max	Min	Del_T	Ave
00001	0.610	0.608	0.608	0.609	0.609	0.607	0.606	0.610	0.610	0.606	0.004	0.608
00002	0.610	0.609	0.609	0.610	0.608	0.609	0.610	0.609	0.610	0.608	0.002	0.609
00003	0.610	0.610	0.612	0.611	0.615	0.612	0.612	0.612	0.615	0.610	0.005	0.612
Max	0.610	0.610	0.612	0.611	0.615	0.612	0.612	0.612				
Min	0.610	0.608	0.608	0.609	0.608	0.607	0.606	0.609				
Del_T	0.000	0.002	0.004	0.002	0.007	0.005	0.006	0.003				
Ave	0.610	0.609	0.610	0.610	0.611	0.609	0.609	0.610				

Janet L Miles II 3/31/98

Steve Sugar 4-1-98

STATISTICS

Component ID: BAY1A1

Datafile(s): BAY1A1

COLUMN:

Lowest Value: 0.606 G

Highest Value: 0.615 E

Lowest Del_T: 0.000 A

Highest Del_T: 0.007 E

ROW:

Lowest Value: 0.606 00001

Highest Value: 0.615 00003

Lowest Del_T: 0.002 00002

Highest Del_T: 0.005 00003

Overall Average Value: 0.610

Janet K Miller II 3/31/98

Steve Sugar 4.1.98

THICKNESS DATA SHEET

DATA SHEET NO. N/A

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 2 AREA 2 EN

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT:
MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

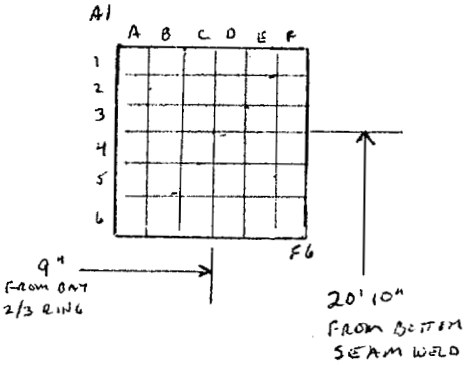
TRANSDUCER
MAKE/MODEL: PANAMETRICS S/N 89303 D791-RM MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK
MATERIAL: 4340 S/N 97-6691 PRODUCT FORM: STEPWEDGE THICKNESSES: .25, .50, .75

CALIBRATION TIMES:
INITIAL: 2030 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 2140

SKETCH WITH RESULTS:

THERMAL S/N 162557
CAL BLK TEMP 72°
COMP TEMP 75°



Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 3/31/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4-1-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) DATE

Component ID: B2A2
Datafile(s): B2A2

	A	B	C	D	E	F	Max	Min	Del_T	Ave
00001	0.570	0.571	0.571	0.570	0.570	0.571	0.571	0.570	0.001	0.571
00002	0.569	0.570	0.572	0.570	0.568	0.571	0.572	0.568	0.004	0.570
00003	0.569	0.568	0.568	0.570	0.571	0.570	0.571	0.568	0.003	0.569
00004	0.570	0.570	0.570	0.567	0.570	0.569	0.570	0.567	0.003	0.569
00005	0.571	0.573	0.572	0.571	0.573	0.569	0.573	0.569	0.004	0.572
00006	0.572	0.572	0.572	0.570	0.570	0.570	0.572	0.570	0.002	0.571
Max	0.572	0.573	0.572	0.571	0.573	0.571				
Min	0.569	0.568	0.568	0.567	0.568	0.569				
Del_T	0.003	0.005	0.004	0.004	0.005	0.002				
Ave	0.570	0.571	0.571	0.570	0.570	0.570				

MA Shearer LII 3/31/98

4.1.98

STATISTICS

Component ID: B2A2

Datafile(s): B2A2

COLUMN:

Lowest Value: 0.567 D

Highest Value: 0.573 E

Lowest Del_T: 0.002 F

Highest Del_T: 0.005 E

ROW:

Lowest Value: 0.567 00004

Highest Value: 0.573 00005

Lowest Del_T: 0.001 00001

Highest Del_T: 0.004 00005

Overall Average Value: 0.570

TMA Shearer LII 3/31/98

GLP Sugar 4.1.98

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-27

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY Z, AREA 1 EN N/A

LOCATION Rx Bldg 213' Torus Bottom Exterior

MATERIAL: CS PRODUCT FORM: PLATE APPROX. THICK.: 0.6 inches

INSTRUMENT: MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: Panametrics/D791-RM/69318 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5 MHz SIZE: 0.312"

CAL. BLOCK MATERIAL: CS SN: 93-6689 PRODUCT FORM: STEPWEDGE THICKNESSES: 0.250"–1.000

CALIBRATION TIMES: INITIAL: 04:20 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 06:15

SKETCH WITH RESULTS: THERMOMETER 162557 CAL BLOCK TEMP: 70°F Part Temp: 67°F

1" grids

A1-F6

Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 3/29/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 3.30.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B2A1
Datafile(s): B2A1

	A	B	C	D	E	F	Max	Min	Del_T	Ave
00001	0.608	0.607	0.608	0.608	0.591	0.609	0.609	0.591	0.018	0.605
00002	0.605	0.604	0.606	0.600	0.609	0.607	0.609	0.600	0.009	0.605
00003	0.603	0.605	0.602	0.603	0.608	0.605	0.608	0.602	0.006	0.604
00004	0.603	0.605	0.605	0.608	0.609	0.606	0.609	0.603	0.006	0.606
00005	0.606	0.608	0.608	0.607	0.608	0.609	0.609	0.606	0.003	0.608
00006	0.605	0.602	0.605	0.606	0.605	0.607	0.607	0.602	0.005	0.605
Max	0.608	0.608	0.608	0.608	0.609	0.609				
Min	0.603	0.602	0.602	0.600	0.591	0.605				
Del_T	0.005	0.006	0.006	0.008	0.018	0.004				
Ave	0.605	0.605	0.606	0.605	0.605	0.607				

Charles P. Cot
3/29/98

3-30-98

STATISTICS

Component ID: B2A1

Datafile(s): B2A1

Charles P. Cote
3/29/98

COLUMN:

Lowest Value: 0.591 E

Highest Value: 0.609 F

Lowest Del_T: 0.004 F

Highest Del_T: 0.018 E

SUP Sanger 3.30.98

ROW:

Lowest Value: 0.591 00001

Highest Value: 0.609 00005

Lowest Del_T: 0.003 00005

Highest Del_T: 0.018 00001

Overall Average Value: 0.606

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-26

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 5, AREA 1 EN N/A

LOCATION Rx Bldg. 213' TORUS Bottom Exterior

MATERIAL: CS PRODUCT FORM: PLATE APPROX. THICK.: 0.6 inches

INSTRUMENT MAKE: Panametrics MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: Panametrics/D791-RM/69318 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5 MHz SIZE: 0.312"

CAL. BLOCK MATERIAL: CS SN: 93-6689 PRODUCT FORM: STEPWEDGE THICKNESSES: 0.250" - 1.000"

CALIBRATION TIMES: INITIAL: 04:20 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 06:15

SKETCH WITH RESULTS: Thermometer 162557 Cal block temp: 70°F part temp: 67°F

1" grids

A1-013

Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 3/29/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 3.30.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B5A1
Datafile(s): B5A1

98TORUS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Max	Min	Del_T	Ave
00001	0.597	0.590	0.600	0.593	0.600	0.590	0.592	0.600	0.600	0.599	0.598	0.594	0.600	0.595	0.599	0.600	0.590	0.010	0.596
00002	0.598	0.596	0.597	0.587	0.591	0.595	0.590	0.589	0.599	0.594	0.593	0.596	0.594	0.597	0.592	0.599	0.587	0.012	0.594
00003	0.600	0.596	0.597	0.595	0.595	0.596	0.599	0.596	0.596	0.594	0.596	0.595	0.599	0.602	0.599	0.602	0.594	0.008	0.597
00004	0.601	0.601	0.598	0.587	0.593	0.585	0.597	0.597	0.598	0.598	0.599	0.598	0.594	0.597	0.597	0.601	0.585	0.016	0.596
00005	0.599	0.600	0.587	0.595	0.591	0.598	0.590	0.585	0.596	0.599	0.599	0.599	0.597	0.593	0.594	0.600	0.585	0.015	0.595
00006	0.594	0.598	0.597	0.589	0.582*	0.594	0.593	0.594	0.595	0.596	0.594	0.593	0.592	0.594	0.599	0.599	0.582	0.017	0.594
00007	0.600	0.601	0.600	0.597	0.598	0.599	0.597	0.598	0.595	0.595	0.597	0.597	0.599	0.600	0.594	0.601	0.594	0.007	0.598
00008	0.600	0.599	0.598	0.601	0.595	0.596	0.598	0.598	0.595	0.595	0.594	0.594	0.595	0.596	0.595	0.601	0.594	0.007	0.597
00009	0.597	0.597	0.594	0.601	0.602	0.594	0.597	0.594	0.596	0.602	0.596	0.597	0.595	0.598	0.599	0.602	0.594	0.008	0.597
00010	0.594	0.597	0.594	0.598	0.600	0.593	0.596	0.596	0.598	0.598	0.597	0.593	0.597	0.599	0.597	0.600	0.593	0.007	0.596
00011	0.597	0.599	0.600	0.601	0.599	0.596	0.595	0.596	0.596	0.599	0.599	0.596	0.599	0.596	0.594	0.601	0.594	0.007	0.597
00012	0.599	0.598	0.594	0.598	0.594	0.595	0.594	0.594	0.593	0.593	0.597	0.591	0.599	0.595	0.595	0.599	0.591	0.008	0.595
00013	0.595	0.598	0.592	0.597	0.595	0.593	0.598	0.594	0.593	0.596	0.594	0.593	0.593	0.592	0.592	0.598	0.592	0.006	0.594
Max	0.601	0.601	0.600	0.601	0.602	0.599	0.599	0.600	0.600	0.602	0.599	0.599	0.600	0.602	0.599				
Min	0.594	0.590	0.587	0.587	0.582	0.585	0.590	0.585	0.593	0.593	0.593	0.591	0.592	0.592	0.592				
Del_T	0.007	0.011	0.013	0.014	0.020	0.014	0.009	0.015	0.007	0.009	0.006	0.008	0.008	0.010	0.007				
Ave	0.598	0.598	0.596	0.595	0.595	0.594	0.595	0.595	0.596	0.597	0.596	0.595	0.596	0.596	0.596				

Need both data sheets.

Marlin P. Cotts
3/29/98

* LOCATION E-6 RECHECKED AND FOUND TO BE .586". SEE DATA SHEET # VA-UT-UZ-46.

3.30.98

STATISTICS

Component ID: B5A1

Datafile(s): B5A1

COLUMN:

Lowest Value: 0.582 E

Highest Value: 0.602 N

Lowest Del_T: 0.006 K

Highest Del_T: 0.020 E

ROW:

Lowest Value: 0.582 00006

Highest Value: 0.602 00009

Lowest Del_T: 0.006 00013

Highest Del_T: 0.017 00006

Overall Average Value: 0.596

Charles P. Cotter
3/29/98

3.30.98

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-25

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAYS AREA 2 EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93129407

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 69315 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: .25, .50, .75

CALIBRATION TIMES: INITIAL: 0305 CHECK: 0430 CHECK: 0530 CHECK: 0600 FINAL: 0630

SKETCH WITH RESULTS:

THERMO S/N 162557
CAL BLK TEMP 70°
COMP TEMP 67°

Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 3/25/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 3.30-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B5A2
Datafile(s): B5A2

98TORUS

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Max	Min	Del_T	Ave
00001	0.596	0.595	0.595	0.595	0.595	0.594	0.596	0.595	0.596	0.597	0.596	0.587	0.588	0.596	0.597	0.592	0.596	0.595	0.596	0.594	0.595	0.595	0.595	0.596	0.596	0.597	0.587	0.010	0.595
00002	0.596	0.595	0.596	0.596	0.596	0.597	0.596	0.595	0.596	0.597	0.592	0.586	0.595	0.595	0.596	0.596	0.596	0.595	0.596	0.596	0.595	0.596	0.596	0.595	0.596	0.597	0.586	0.011	0.595
00003	0.596	0.596	0.597	0.597	0.597	0.595	0.595	0.596	0.596	0.595	0.586	0.596	0.597	0.597	0.597	0.598	0.598	0.596	0.590	0.596	0.598	0.597	0.596	0.598	0.597	0.598	0.586	0.012	0.596
00004	0.597	0.596	0.597	0.596	0.596	0.596	0.596	0.595	0.596	0.598	0.586	0.596	0.596	0.595	0.596	0.596	0.596	0.594	0.596	0.597	0.595	0.595	0.596	0.596	0.597	0.598	0.586	0.012	0.596
00005	0.595	0.595	0.597	0.596	0.596	0.598	0.596	0.596	0.595	0.595	0.595	0.594	0.597	0.594	0.596	0.597	0.596	0.596	0.595	0.595	0.596	0.598	0.598	0.597	0.597	0.598	0.594	0.004	0.596
00006	0.597	0.596	0.596	0.595	0.595	0.596	0.596	0.595	0.551*	0.596	0.591	0.596	0.595	0.596	0.596	0.595	0.597	0.596	0.597	0.594	0.597	0.596	0.598	0.598	0.596	0.598	0.551	0.047	0.594
00007	0.595	0.595	0.595	0.595	0.595	0.595	0.596	0.595	0.595	0.596	0.595	0.595	0.596	0.595	0.595	0.596	0.596	0.596	0.595	0.595	0.595	0.596	0.597	0.598	0.595	0.598	0.595	0.003	0.595
00008	0.596	0.595	0.595	0.596	0.596	0.594	0.594	0.593	0.594	0.597	0.594	0.594	0.596	0.597	0.597	0.597	0.595	0.597	0.594	0.597	0.594	0.596	0.596	0.596	0.594	0.597	0.593	0.004	0.595
00009	0.595	0.595	0.595	0.594	0.595	0.590	0.597	0.595	0.595	0.594	0.594	0.594	0.595	0.597	0.598	0.596	0.598	0.597	0.595	0.595	0.598	0.596	0.597	0.597	0.596	0.598	0.590	0.008	0.596
00010	0.598	0.596	0.594	0.596	0.597	0.596	0.596	0.596	0.597	0.597	0.597	0.598	0.596	0.596	0.597	0.598	0.597	0.596	0.596	0.598	0.596	0.598	0.597	0.596	0.596	0.598	0.594	0.004	0.597
00011	0.595	0.596	0.595	0.595	0.596	0.597	0.597	0.596	0.598	0.598	0.594	0.594	0.594	0.595	0.597	0.597	0.597	0.596	0.597	0.597	0.596	0.595	0.596	0.595	0.596	0.598	0.594	0.004	0.596
00012	0.596	0.596	0.597	0.596	0.597	0.596	0.596	0.596	0.597	0.596	0.596	0.596	0.597	0.596	0.598	0.596	0.596	0.598	0.594	0.597	0.596	0.596	0.596	0.594	0.596	0.598	0.594	0.004	0.596
00013	0.596	0.597	0.596	0.597	0.598	0.596	0.596	0.584	0.593	0.586	0.597	0.597	0.597	0.596	0.597	0.596	0.597	0.597	0.595	0.595	0.596	0.596	0.596	0.597	0.596				

TMAShew LEI 3/29/98

Need both data sheets.

* LOCATION I-6 RECHECKED AND FOUND TO BE .593". SEE DATA SHEET # YA-UT-112-46

SWD 3.30.98

																	0.597	0.597	0.595	0.595	0.596	0.596	0.596	0.597	0.596	0.598	0.584	0.014	0.595
00014	0.595	0.597	0.595	0.595	0.597	0.596	0.594	0.598	0.595	0.597	0.597	0.596	0.597	0.598	0.598	0.597	0.598	0.599	0.598	0.598	0.599	0.597	0.597	0.598	0.599	0.599	0.594	0.005	0.597
00015	0.597	0.598	0.598	0.596	0.594	0.596	0.596	0.596	0.595	0.595	0.593	0.597	0.596	0.596	0.596	0.589	0.596	0.596	0.596	0.596	0.596	0.597	0.596	0.597	0.595	0.598	0.589	0.009	0.596
00016	0.596	0.597	0.598	0.597	0.597	0.596	0.596	0.596	0.596	0.597	0.596	0.598	0.598	0.597	0.597	0.597	0.598	0.597	0.598	0.595	0.598	0.596	0.598	0.596	0.595	0.598	0.595	0.003	0.597
00017	0.594	0.595	0.596	0.597	0.597	0.596	0.596	0.596	0.598	0.597	0.597	0.596	0.596	0.597	0.597	0.596	0.598	0.597	0.597	0.597	0.597	0.597	0.597	0.598	0.598	0.598	0.594	0.004	0.597
00018	0.596	0.596	0.596	0.596	0.595	0.595	0.595	0.595	0.595	0.593	0.596	0.597	0.597	0.598	0.596	0.596	0.597	0.597	0.597	0.597	0.596	0.598	0.595	0.597	0.598	0.598	0.593	0.005	0.596
00019	0.595	0.597	0.595	0.596	0.596	0.598	0.596	0.594	0.593	0.598	0.595	0.595	0.595	0.596	0.598	0.597	0.597	0.596	0.596	0.597	0.597	0.596	0.597	0.597	0.597	0.598	0.593	0.005	0.596
00020	0.595	0.595	0.595	0.596	0.595	0.596	0.596	0.596	0.597	0.597	0.596	0.595	0.595	0.596	0.597	0.596	0.597	0.596	0.596	0.596	0.597	0.595	0.596	0.596	0.595	0.597	0.595	0.002	0.596
00021	0.596	0.596	0.595	0.595	0.597	0.596	0.595	0.596	0.597	0.598	0.595	0.596	0.595	0.596	0.597	0.597	0.596	0.596	0.595	0.597	0.596	0.595	0.596	0.596	0.596	0.598	0.595	0.003	0.596
00022	0.596	0.595	0.595	0.596	0.595	0.595	0.596	0.590	0.596	0.596	0.593	0.595	0.595	0.597	0.594	0.597	0.597	0.595	0.595	0.595	0.596	0.595	0.596	0.596	0.595	0.597	0.590	0.007	0.595
00023	0.596	0.580	0.595	0.597	0.595	0.597	0.596	0.598	0.596	0.596	0.596	0.596	0.596	0.596	0.596	0.595	0.596	0.596	0.595	0.595	0.595	0.596	0.595	0.596	0.597	0.598	0.580	0.018	0.595
00024	0.596	0.597	0.596	0.596	0.594	0.594	0.595	0.596	0.595	0.596	0.595	0.595	0.596	0.586	0.595	0.594	0.596	0.596	0.595	0.595	0.596	0.596	0.596	0.596	0.596	0.597	0.586	0.011	0.595
00025	0.596	0.597	0.594	0.593	0.596	0.597	0.593	0.595	0.596	0.597	0.596	0.596	0.596	0.595	0.597	0.592	0.596	0.596	0.596	0.596	0.596	0.595	0.596	0.595	0.596	0.597	0.592	0.005	0.596
00026	0.595	0.597	0.596	0.596	0.596	0.595	0.596	0.597	0.596	0.596	0.595	0.596	0.597	0.597	0.594	0.597	0.596	0.597	0.598	0.596	0.597	0.597	0.597	0.596	0.595				

3/27/98 3.30.98

														0.596	0.597	0.596	0.596	0.595	0.596	0.597	0.597	0.594	0.597	0.596	0.597	0.598	0.596	0.597	0.597	0.597	0.596	0.595	0.598	0.594	0.004	0.596
Max	0.598	0.598	0.598	0.597	0.598	0.598	0.597	0.598	0.598	0.598	0.597	0.598	0.598	0.598	0.598	0.598	0.598	0.599	0.598	0.598	0.599	0.598	0.598	0.598	0.599									
Min	0.594	0.580	0.594	0.593	0.594	0.590	0.593	0.584	0.551	0.586	0.586	0.586	0.588	0.586	0.594	0.589	0.595	0.594	0.590	0.594	0.594	0.595	0.595	0.594	0.594									
Del_T	0.004	0.018	0.004	0.004	0.004	0.008	0.004	0.014	0.047	0.012	0.011	0.012	0.010	0.012	0.004	0.009	0.003	0.005	0.008	0.004	0.005	0.003	0.003	0.004	0.005									
Ave	0.596	0.595	0.596	0.596	0.596	0.596	0.596	0.595	0.594	0.596	0.594	0.595	0.596	0.596	0.596	0.596	0.597	0.596	0.596	0.596	0.596	0.596	0.596	0.596	0.596									

LEH 3/29/98

Component ID: B5A2
Datafile(s): B5A2

	Z	Max	Min	Del_T	Ave
00001	0.596	0.596	0.596	0.000	0.596
00002	0.596	0.596	0.596	0.000	0.596
00003	0.596	0.596	0.596	0.000	0.596
00004	0.596	0.596	0.596	0.000	0.596
00005	0.596	0.596	0.596	0.000	0.596
00006	0.597	0.597	0.597	0.000	0.597
00007	0.595	0.595	0.595	0.000	0.595
00008	0.596	0.596	0.596	0.000	0.596
00009	0.596	0.596	0.596	0.000	0.596
00010	0.596	0.596	0.596	0.000	0.596
00011	0.596	0.596	0.596	0.000	0.596
00012	0.595	0.595	0.595	0.000	0.595
00013	0.597	0.597	0.597	0.000	0.597
00014	0.598	0.598	0.598	0.000	0.598
00015	0.596	0.596	0.596	0.000	0.596
00016	0.595	0.595	0.595	0.000	0.595
00017	0.596	0.596	0.596	0.000	0.596
00018	0.596	0.596	0.596	0.000	0.596
00019	0.595	0.595	0.595	0.000	0.595
00020	0.596	0.596	0.596	0.000	0.596
00021	0.595	0.595	0.595	0.000	0.595
00022	0.596	0.596	0.596	0.000	0.596
00023	0.596	0.596	0.596	0.000	0.596
00024	0.595	0.595	0.595	0.000	0.595
00025	0.596	0.596	0.596	0.000	0.596
00026	0.597	0.597	0.597	0.000	0.597

Max	0.598
Min	0.595
Del_T	0.003
Ave	0.596

LEL 3/25/98 3.30.98

Component ID: B5A2

Datafile(s): B5A2

COLUMN:

Lowest Value: 0.551 I

Highest Value: 0.599 Y

Lowest Del_T: 0.003 Z

Highest Del_T: 0.047 I

ROW:

Lowest Value: 0.551 00006

Highest Value: 0.599 00014

Lowest Del_T: 0.002 00020

Highest Del_T: 0.047 00006

Overall Average Value: 0.596

LII 3/25/98 3.30.98

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-48

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 12 (AREA 1) EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580"

INSTRUMENT: MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 9313 4807

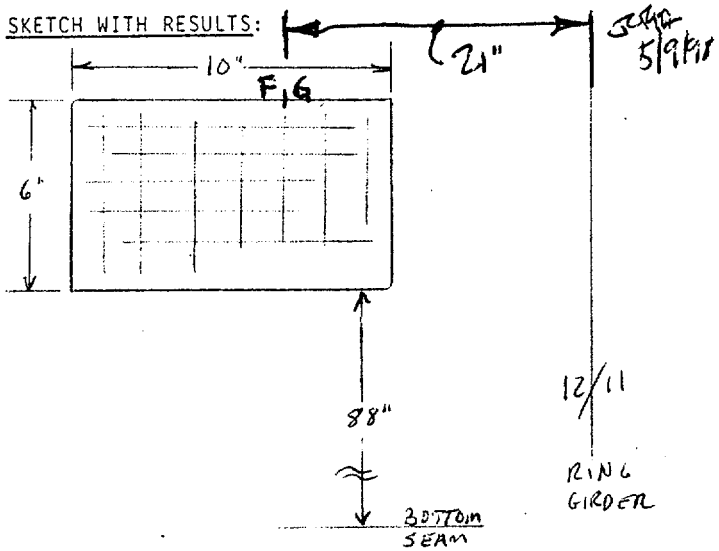
CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 89303 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: 4340 S/N 93-6691 PRODUCT FORM: STEPWEDGE THICKNESSES: .25, .5, .75

CALIBRATION TIMES: INITIAL: 0120 CHECK: 0155 CHECK: N/A CHECK: N/A FINAL: 0250

SKETCH WITH RESULTS:



THERMO S/N 162557
CAL BLK TEMP 77°
COMP TEMP 69°

NOTE: IDENTIFIED AS AREA 1 ON YA-VT-11-10 5/9/98.

Evaluation Required: (YES) NO

EXAMINER M. Sheare LEVEL II DATE 3/31/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) DATE 3.31.98

COGNIZANT ENGINEER DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B12A3
Datafile(s): B12A3

	A	B	C	D	E	F	G	H	I	J	Max	Min	Del_T	Ave
00001	0.591	0.590	0.593	0.593	0.591	0.593	0.592	0.593	0.592	0.593	0.593	0.590	0.003	0.592
00002	0.592	0.591	0.592	0.591	0.592	0.592	0.594	0.591	0.592	0.590	0.594	0.590	0.004	0.592
00003	0.593	0.592	0.590	0.591	0.590	0.594	0.593	0.591	0.593	0.591	0.594	0.590	0.004	0.592
00004	0.592	0.591	0.593	0.592	0.592	0.592	0.591	0.590	0.590	0.591	0.593	0.590	0.003	0.591
00005	0.592	0.593	0.593	0.592	0.591	0.594	0.592	0.591	0.593	0.593	0.594	0.591	0.003	0.592
00006	0.593	0.591	0.591	0.591	0.595	0.592	0.591	0.591	0.592	0.591	0.595	0.591	0.004	0.592

Max	0.593	0.593	0.593	0.593	0.595	0.594	0.594	0.593	0.593	0.593
Min	0.591	0.590	0.590	0.591	0.590	0.592	0.591	0.590	0.590	0.590
Del_T	0.002	0.003	0.003	0.002	0.005	0.002	0.003	0.003	0.003	0.003
Ave	0.592	0.591	0.592	0.592	0.592	0.593	0.592	0.591	0.592	0.591

M A Sheaman LH 3/31/98

SWP Dugan 3-31-98

STATISTICS

Component ID: B12A3

Datafile(s): B12A3

COLUMN:

Lowest Value: 0.590 J

Highest Value: 0.595 E

Lowest Del_T: 0.002 F

Highest Del_T: 0.005 E

ROW:

Lowest Value: 0.590 00004

Highest Value: 0.595 00006

Lowest Del_T: 0.003 00005

Highest Del_T: 0.004 00006

Overall Average Value: 0.592

MASheen LII 3/31/98

SWPSingh 3.31.98

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-24

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 12 AREA 2 EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT: MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93129407

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 69315 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: .25, .50, .75

CALIBRATION TIMES: INITIAL: 0305 CHECK: 0430 CHECK: 0530 CHECK: 0600 FINAL: 0630

SKETCH WITH RESULTS:

THERMO S/N 162557
CAL BLK TEMP 70°
COMP TEMP 67°

Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 3/28/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 3.30.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B12A2
Datafile(s): B12A2

98TORUS

	A	B	C	D	E	F	G	H	I	J*	K*	L*	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Max	Min	Del_T	Ave
00001	0.615	0.615	0.616	0.613	0.611	0.609	0.609	0.608	0.601	0.571	0.581	0.569	0.587	0.588	0.587	0.589	0.589	0.587	0.588	0.589	0.590	0.589	0.590	0.588	0.590	0.616	0.569	0.047	0.595
00002	0.615	0.614	0.613	0.613	0.612	0.610	0.611	0.608	0.597	0.580	0.582	0.574	0.588	0.587	0.586	0.589	0.589	0.589	0.588	0.588	0.588	0.589	0.589	0.588	0.589	0.615	0.574	0.041	0.595
00003	0.617	0.614	0.613	0.614	0.610	0.609	0.609	0.608	0.601	0.581	0.581	0.586	0.587	0.585	0.586	0.589	0.589	0.589	0.589	0.588	0.589	0.589	0.589	0.588	0.588	0.617	0.581	0.036	0.596
00004	0.617	0.614	0.608	0.611	0.611	0.612	0.607	0.609	0.600	0.583	0.582	0.584	0.587	0.586	0.585	0.584	0.587	0.588	0.589	0.588	0.587	0.589	0.588	0.590	0.589	0.617	0.582	0.035	0.595
00005	0.619	0.614	0.596	0.597	0.609	0.598	0.603	0.593	0.606	0.585	0.582	0.586	0.587	0.588	0.586	0.587	0.588	0.587	0.588	0.588	0.589	0.588	0.589	0.588	0.589	0.619	0.582	0.037	0.593
00006	0.617	0.615	0.611	0.610	0.612	0.610	0.607	0.605	0.603	0.582	0.585	0.586	0.588	0.588	0.588	0.587	0.590	0.588	0.587	0.588	0.589	0.589	0.591	0.589	0.588	0.617	0.582	0.035	0.596
00007	0.617	0.618	0.617	0.612	0.613	0.611	0.612	0.610	0.600	0.580	0.582	0.587	0.588	0.588	0.589	0.588	0.587	0.587	0.586	0.587	0.587	0.588	0.589	0.590	0.590	0.618	0.580	0.038	0.596
00008	0.617	0.614	0.616	0.614	0.612	0.614	0.610	0.610	0.604	0.583	0.587	0.585	0.588	0.588	0.589	0.589	0.588	0.588	0.588	0.588	0.589	0.590	0.591	0.590	0.589	0.617	0.583	0.034	0.597
00009	0.616	0.613	0.613	0.612	0.611	0.611	0.610	0.609	0.601	0.592	0.582	0.584	0.586	0.588	0.588	0.588	0.587	0.586	0.586	0.588	0.589	0.588	0.588	0.587	0.589	0.616	0.582	0.034	0.596
00010	0.616	0.613	0.614	0.612	0.612	0.605	0.605	0.602	0.602	0.587	0.579	0.588	0.587	0.586	0.586	0.588	0.587	0.589	0.588	0.588	0.588	0.586	0.588	0.588	0.587	0.616	0.579	0.037	0.595
00011	0.613	0.613	0.613	0.612	0.611	0.600	0.590	0.597	0.594	0.588	0.582	0.588	0.588	0.587	0.587	0.590	0.588	0.589	0.590	0.590	0.590	0.588	0.590	0.589	0.589	0.613	0.582	0.031	0.594
00012	0.616	0.613	0.612	0.612	0.611	0.609	0.610	0.603	0.599	0.586	0.585	0.587	0.588	0.587	0.589	0.590	0.590	0.590	0.589	0.588	0.590	0.589	0.588	0.590	0.590	0.616	0.585	0.031	0.596
Max	0.619	0.618	0.617	0.614	0.613	0.614	0.612	0.610	0.606	0.592	0.587	0.588	0.588	0.588	0.589	0.590	0.590	0.590	0.590	0.590	0.590	0.590	0.591	0.590	0.590				
Min	0.613	0.613	0.596	0.597	0.609	0.598	0.590	0.593	0.594	0.571	0.579	0.569	0.586	0.585	0.585	0.584	0.587	0.586	0.586	0.587	0.587	0.586	0.588	0.587	0.587				
Del_T	0.006	0.005	0.021	0.017	0.004	0.016	0.022	0.017	0.012	0.021	0.008	0.019	0.002	0.003	0.004	0.006	0.003	0.004	0.004	0.003	0.003	0.004	0.003	0.003	0.003				
Ave	0.616	0.614	0.612	0.611	0.611	0.608	0.607	0.605	0.601	0.583	0.582	0.584	0.587	0.587	0.587	0.588	0.588	0.588	0.588	0.588	0.589	0.588	0.589	0.589	0.589				

LII 3/29/98 3.30.98

* LOCATIONS BELOW .584" WERE RECHECKED. SEE DATA SHEETS
#YA-UT-112-46 FOR RESULTS.
YA-UT-112-47

STATISTICS

Component ID: B12A2

Datafile(s): B12A2

COLUMN:

Lowest Value: 0.569 L

Highest Value: 0.619 A

Lowest Del_T: 0.002 M

Highest Del_T: 0.022 G

ROW:

Lowest Value: 0.569 00001

Highest Value: 0.619 00005

Lowest Del_T: 0.031 00012

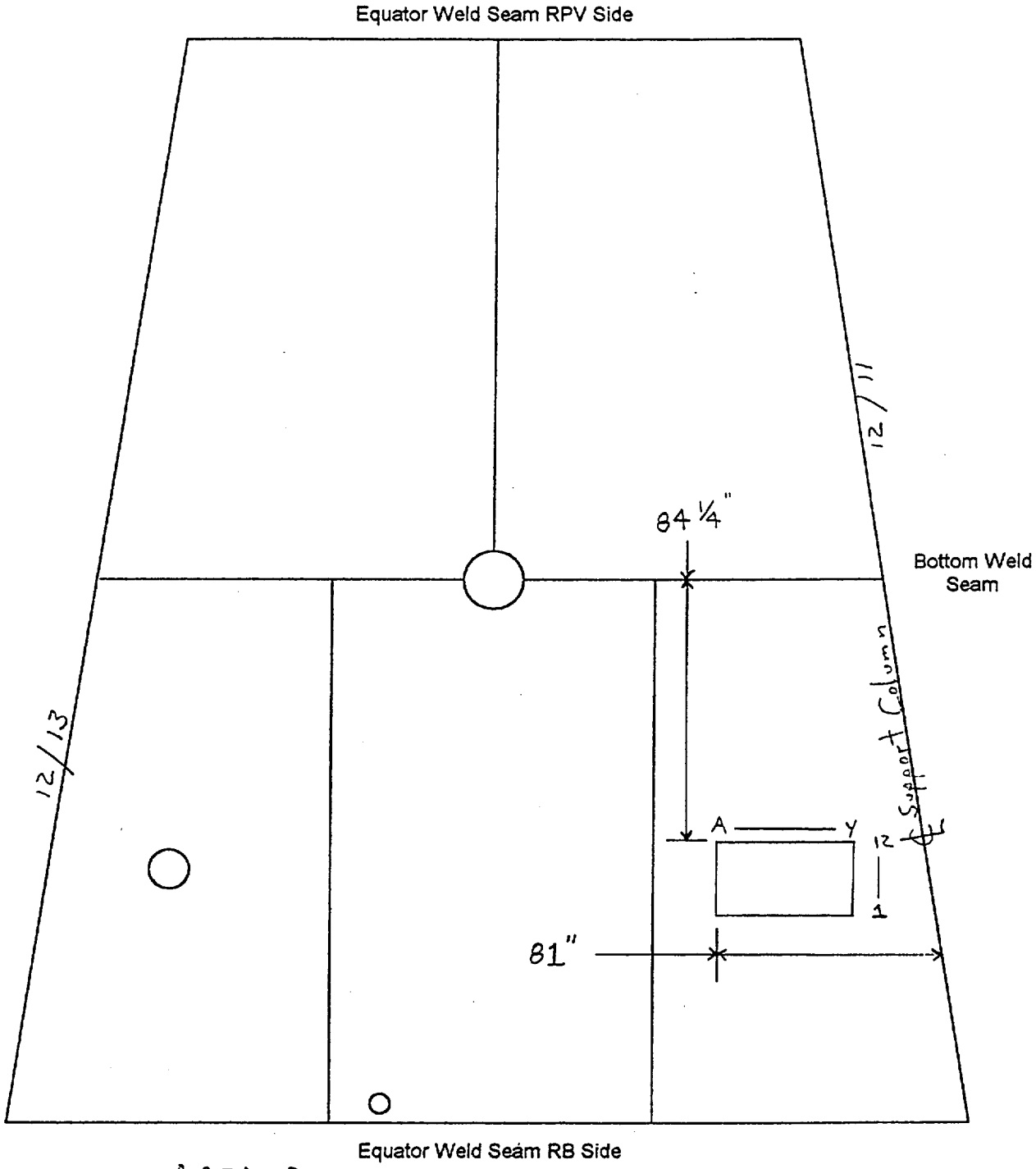
Highest Del_T: 0.047 00001

Overall Average Value: 0.595

3/29/98 3.30.98

Torus Rollout - Bay 12

Bottom Half - Shell Exterior



Notes: BAY 12, AREA 2

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-28

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY12 AREA 1 * EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .580

INSTRUMENT MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93129407

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 69315 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: .25, .50, .75

CALIBRATION TIMES: INITIAL: 0305 CHECK: 0430 CHECK: 0530 CHECK: 0600 FINAL: 0630

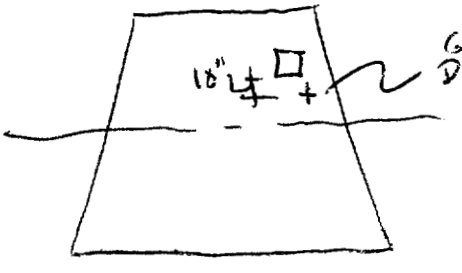
SKETCH WITH RESULTS:

THERMO S/N 162557
CAL BLK TEMP 70°
COMP TEMP 67°

~~APPROX. LOCATION OF SEAM IN BAY 12 21" FROM 4/12 RING GIRDER AND 81" FROM BOTTOM SEAM, TRAP~~

IGNORE JCP 5/9/98.

* EXTRA LOCATION INSIDE TORUS ℄



GRID DATA PT. 12/16 JCP

Evaluation Required: (YES) NO

EXAMINER MASheem LEVEL II DATE 3/28/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) SWPSong DATE 3-30-98

COGNIZANT ENGINEER JCP DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B12A1
Datafile(s): B12A1

	A	B	C	D	E	Max	Min	Del_T	Ave
00001	0.607	0.605	0.608	0.607	0.610	0.610	0.605	0.005	0.607
00002	0.605	0.605	0.605	0.607	0.604	0.607	0.604	0.003	0.605
00003	0.604	0.605	0.606	0.606	0.605	0.606	0.604	0.002	0.605
00004	0.606	0.606	0.603	0.605	0.604	0.606	0.603	0.003	0.605
00005	0.605	0.604	0.605	0.605	0.605	0.605	0.604	0.001	0.605
00006	0.602	0.606	0.605	0.604	0.605	0.606	0.602	0.004	0.604
Max	0.607	0.606	0.608	0.607	0.610				
Min	0.602	0.604	0.603	0.604	0.604				
Del_T	0.005	0.002	0.005	0.003	0.006				
Ave	0.605	0.605	0.605	0.606	0.606				

LII 3/29/98

3.30-98

STATISTICS

Component ID: B12A1

Datafile(s): B12A1

COLUMN:

Lowest Value: 0.602 A

Highest Value: 0.610 E

Lowest Del_T: 0.002 B

Highest Del_T: 0.006 E

ROW:

Lowest Value: 0.602 00006

Highest Value: 0.610 00001

Lowest Del_T: 0.001 00005

Highest Del_T: 0.005 00001

MASheen LEI 3/29/98

3.30.98

Overall Average Value: 0.605

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-46

PLANT V.Y. OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 5 AREA 1+2, BAY 12 AREA 2 EN N/A

LOCATION R.B. 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: 0.6"

INSTRUMENT: MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 69315 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: 0.25" - 1.0"

CALIBRATION TIMES: INITIAL: 1028 CHECK: 1117 CHECK: 1132 CHECK: N/A FINAL: 1205

SKETCH WITH RESULTS:

THERMOMETER S/N - 162556

CAL BLOCK TEMP - 75°F

COMP. TEMP - 70°F

BAY 5 AREA 1 - E-6 - .586"

BAY 5 AREA 2 - I-6 - .593"

BAY 12 AREA 2 -	J-1 - .571"	J-7 - .580"	K-4 - .582"	K-11 - .582"
	J-2 - .580"	J-8 - .583"	K-5 - .582"	L-1 - .570"
	J-3 - .581"	K-1 - .581"	K-7 - .582"	L-2 - .575"
	J-4 - .583"	K-2 - .580"	K-8 - .582"	
	J-6 - .582"	K-3 - .581"	K-9 - .581"	

NOTE: BAY 12 AREA 2 READINGS WERE TAKEN FROM THE FIRST SIGNAL OF A SPLIT SIGNAL BACK REFLECTION.

Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 3-30-98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 3.30.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-47

PLANT VERMONT YANKEE OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. TORUS BAY 12 AREA 2 EN N/A

LOCATION 213' R B UNDER TORUS

MATERIAL: CS PRODUCT FORM: PLATE APPROX. THICK.: .584"

INSTRUMENT MAKE: STAVELEY MODEL: SONIC 136 SERIAL NO.: 934K

CRT ☐ DIGITAL ☐ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: KBA MSEB4 S/N 57462-07466 MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 4.0MHz SIZE: 35x10mm

CAL. BLOCK MATERIAL: CS S/N 93-6689 PRODUCT FORM: STEPWEDGE THICKNESSES: .25", .50", .75"

CALIBRATION TIMES:
INITIAL: 1620 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 1720

SKETCH WITH RESULTS:

Cal blk temp - 75°F
Comp temp - 70°F
thermo. S/N - 162556

BAY 12 AREA 2 RDGS RE-VERIFIED WITH A-SCAN, 1/2" SCREEN READING .25" TO .75".

J-1 - .580"/.630"
J-2 - .580"/.670"
J-3 - .585"
J-4 - .580"/.680"
J-6 - .585"
J-7 - .590"
J-8 - .590"
K-1 - .585"
K-2 - .580"/.650"
K3 - .580"/.650"
K-4 - .580"/.660"
K-5 - .580"/.660"
K-7 - .585"/.660"
K-8 - .585"/.670"
K-9 - .580"/.650"
K-11 - .580"/.660"
L-1 - .570"/.640"
L-2 - .570"/.650"

Evaluation Required: (YES) NO

EXAMINER Janet L Miles LEVEL II DATE 3/30/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 3-30-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-68

PLANT VY OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 5 AREA 1 (INSIDE) EN N/A

LOCATION TORUS BAY 5

MATERIAL: C/S PRODUCT FORM: PLATE APPROX. THICK.: 0.600

INSTRUMENT MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ■ HORIZONTAL LINEARITY PERFORMED ☐

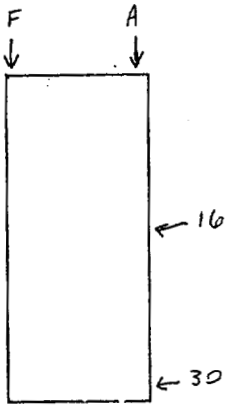
TRANSDUCER MAKE/MODEL: PANAMETRICS D790SM/69395 MODE: ■ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5 MHz SIZE: 0.312"

CAL. BLOCK MATERIAL: C/S PRODUCT FORM: STEPWEDGE THICKNESSES: 0.199" – 0.897"

CALIBRATION TIMES: INITIAL: 0515 CHECK: N/A CHECK: N/A CHECK: N/A FINAL: 0705

SKETCH WITH RESULTS: Thermometer 162579 Part temp: 70°F CalBlock temp: 73°F

A16 – F30



Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 4-4-98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4-7-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B5A1INB
Datafile(s): B5A1INB

	A	B	C	D	E	F	Max	Min	Del_T	Ave
00016	0.586	0.594	0.589	0.633	0.633	0.636	0.636	0.586	0.050	0.612
00017	0.593	0.591	0.594	0.632	0.634	0.634	0.634	0.591	0.043	0.613
00018	0.592	0.592	0.584	0.630	0.635	0.644	0.644	0.584	0.060	0.613
00019	0.590	0.591	0.589	0.634	0.636	0.640	0.640	0.589	0.051	0.613
00020	0.591	0.591	0.590	0.636	0.635	0.642	0.642	0.590	0.052	0.614
00021	0.591	0.590	0.588	0.637	0.638	0.640	0.640	0.588	0.052	0.614
00022	0.598	0.590	0.583	0.623	0.637	0.640	0.640	0.583	0.057	0.612
00023	0.589	0.589	0.586	0.623	0.633	0.642	0.642	0.586	0.056	0.610
00024	0.592	0.593	0.589	0.636	0.640	0.641	0.641	0.589	0.052	0.615
00025	0.588	0.587	0.587	0.634	0.636	0.642	0.642	0.587	0.055	0.612
00026	0.588	0.587	0.584	0.626	0.640	0.641	0.641	0.584	0.057	0.611
00027	0.585	0.586	0.583	0.620	0.636	0.641	0.641	0.583	0.058	0.608
00028	0.583	0.587	0.586	0.634	0.638	0.644	0.644	0.583	0.061	0.612
00029	0.595	0.592	0.591	0.635	0.636	0.643	0.643	0.591	0.052	0.615
00030	0.592	0.591	0.590	0.633	0.641	0.643	0.643	0.590	0.053	0.615
Max	0.598	0.594	0.594	0.637	0.641	0.644				
Min	0.583	0.586	0.583	0.620	0.633	0.634				
Del_T	0.015	0.008	0.011	0.017	0.008	0.010				
Ave	0.590	0.590	0.588	0.631	0.637	0.641				

Charles P. Cole
4-6-98

STATISTICS

Component ID: B5A1INB

Datafile(s): B5A1INB

Charles P. Otto
4-6-98

COLUMN:

Lowest Value: 0.583 C

Highest Value: 0.644 F

Lowest Del_T: 0.008 E

Highest Del_T: 0.017 D

ROW:

Lowest Value: 0.583 00028

Highest Value: 0.644 00028

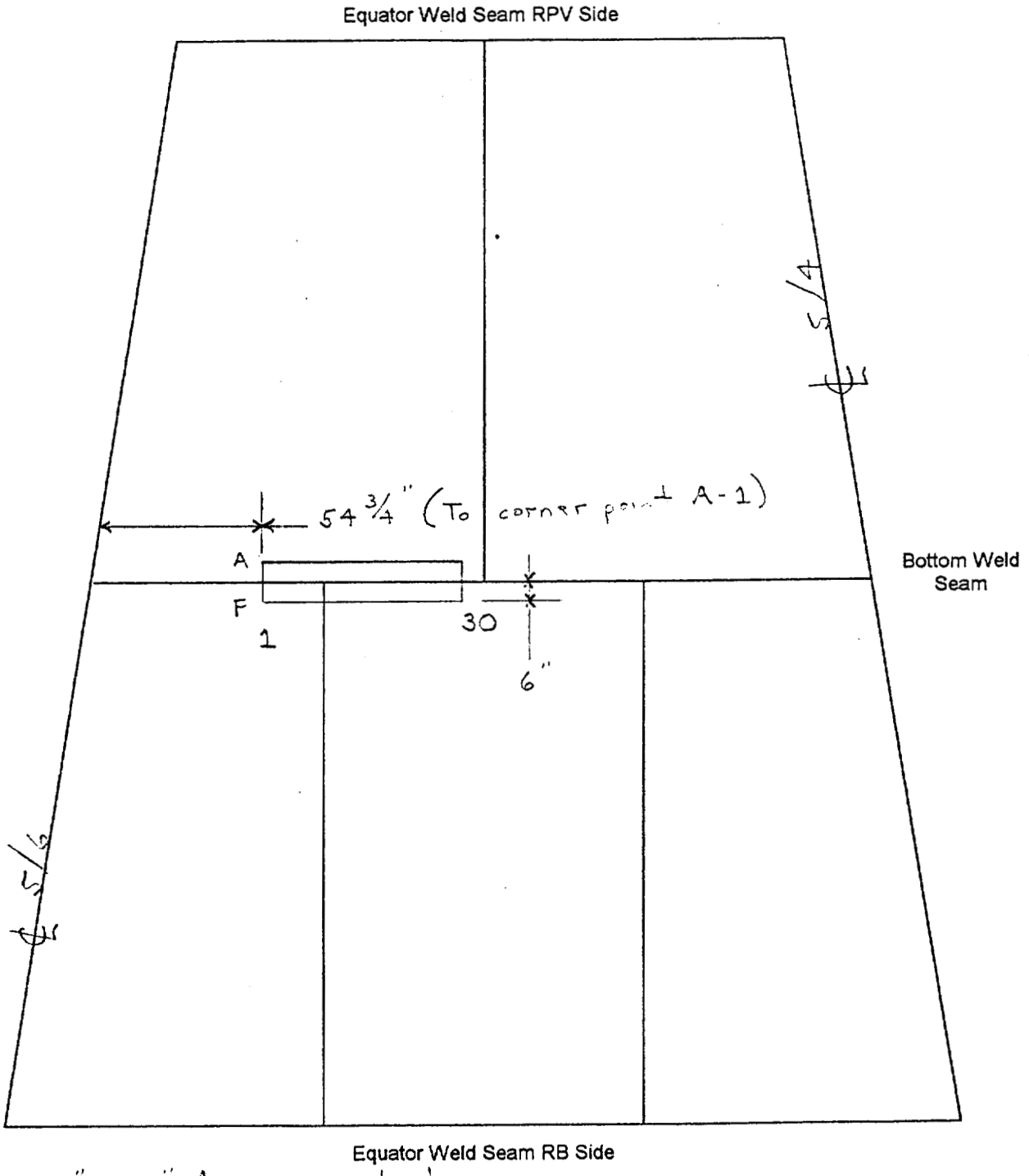
Lowest Del_T: 0.043 00017

Highest Del_T: 0.061 00028

Overall Average Value: 0.613

Torus Rollout - Bay 5

Bottom Half - Shell Interior



Notes: 60" x 12" Area, marked in 2" Grid

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-67

PLANT VY OUTAGE 20 DRAWING NA REV. NA

SYSTEM TORUS COMPONENT/WELD NO. BAY 5 AREA 1 (INSIDE) EN N/A

LOCATION RB 213'

MATERIAL: CARBON STEEL PRODUCT FORM: PLATE APPROX. THICK.: .6

INSTRUMENT:
MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93129307

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

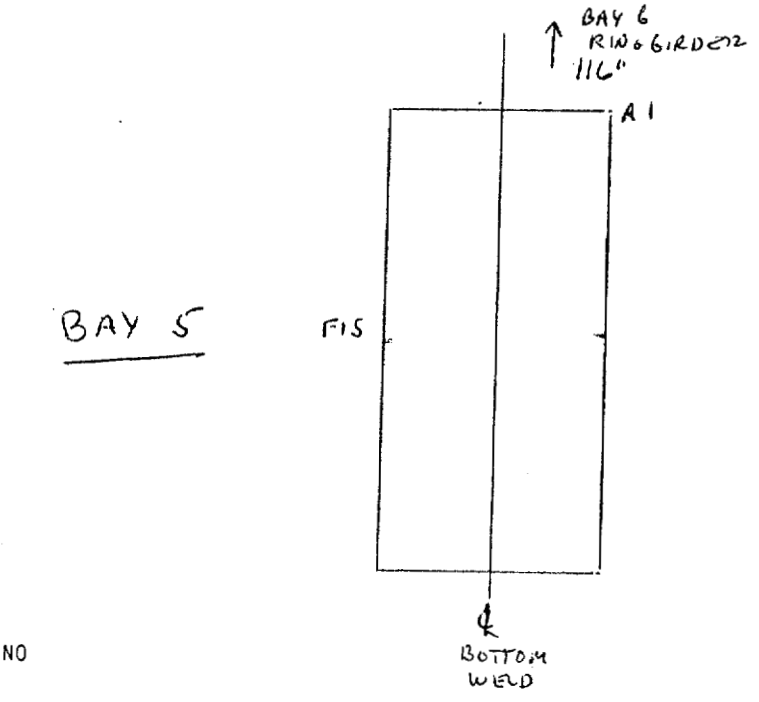
TRANSDUCER
MAKE/MODEL: PANAMETRICS S/N 69311 D791-RM MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK
MATERIAL: 4340 S/N 93-6689 PRODUCT FORM: STEP WEDGE THICKNESSES: .25, .5, .75

CALIBRATION TIMES:
INITIAL: 0515 CHECK: N/A CHECK: NA CHECK: NA FINAL: 0705

SKETCH WITH RESULTS:

THERMO S/N 162579
CAL BLK TEMP 73°
COMP TEM 70°



Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 4/5/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4-7-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Component ID: B5A1INA
Datafile(s): B5A1INA

	A	B	C	D	E	F	Max	Min	Del_T	Ave
00001	0.599	0.599	0.603	0.616	0.618	0.617	0.618	0.599	0.019	0.609
00002	0.600	0.600	0.599	0.616	0.615	0.621	0.621	0.599	0.022	0.609
00003	0.602	0.599	0.603	0.619	0.620	0.622	0.622	0.599	0.023	0.611
00004	0.602	0.600	0.596	0.620	0.619	0.623	0.623	0.596	0.027	0.610
00005	0.601	0.602	0.605	0.622	0.628	0.626	0.628	0.601	0.027	0.614
00006	0.600	0.600	0.599	0.626	0.625	0.628	0.628	0.599	0.029	0.613
00007	0.602	0.600	0.603	0.627	0.627	0.629	0.629	0.600	0.029	0.615
00008	0.604	0.599	0.602	0.626	0.630	0.632	0.632	0.599	0.033	0.615
00009	0.605	0.601	0.603	0.630	0.631	0.631	0.631	0.601	0.030	0.617
00010	0.604	0.600	0.597	0.629	0.630	0.633	0.633	0.597	0.036	0.615
00011	0.602	0.599	0.598	0.632	0.630	0.634	0.634	0.598	0.036	0.616
00012	0.599	0.598	0.599	0.628	0.628	0.635	0.635	0.598	0.037	0.615
00013	0.597	0.595	0.599	0.632	0.635	0.635	0.635	0.595	0.040	0.615
00014	0.597	0.598	0.597	0.630	0.634	0.636	0.636	0.597	0.039	0.615
00015	0.593	0.596	0.598	0.624	0.634	0.634	0.634	0.593	0.041	0.613
Max	0.605	0.602	0.605	0.632	0.635	0.636				
Min	0.593	0.595	0.596	0.616	0.615	0.617				
Del_T	0.012	0.007	0.009	0.016	0.020	0.019				
Ave	0.600	0.599	0.600	0.625	0.627	0.629				

TMA Shearer 2 II 4/5/98

Component ID: B5A1INA

Datafile(s): B5A1INA

COLUMN:

Lowest Value: 0.593 A

Highest Value: 0.636 F

Lowest Del_T: 0.007 B

Highest Del_T: 0.020 E

ROW:

Lowest Value: 0.593 00015

Highest Value: 0.636 00014

Lowest Del_T: 0.019 00001

Highest Del_T: 0.041 00015

Overall Average Value: 0.613

T M Shearer LII 4/5/98

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-104

PLANT VY OUTAGE RF 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 8 EN N/A

LOCATION BOTTOM OF TORUS, EXAMINED A66 THRU L118.

MATERIAL: CS PRODUCT FORM: WROUGHT APPROX. THICK.: 0.6"

INSTRUMENT MAKE: PANAMETRICS MODEL: 26DL+ SERIAL NO.:

CRT ☐ DIGITAL ☒ HORIZONTAL LINEARITY PERFORMED ☐

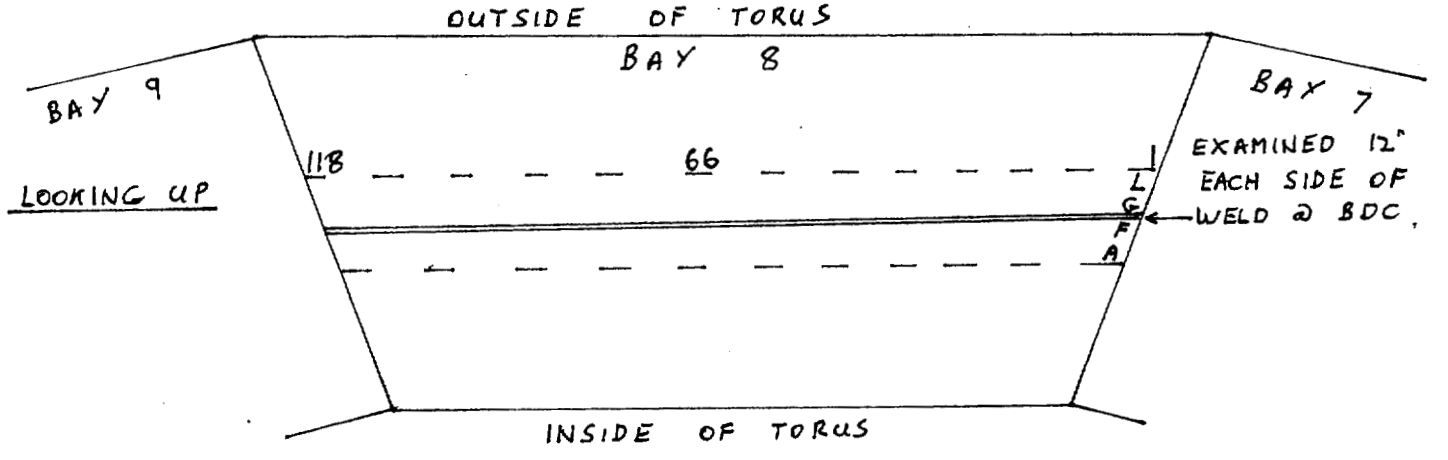
TRANSDUCER MAKE/MODEL: PANAMETRICS D791 RM SN: 69318 MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: CS PRODUCT FORM: 4-STEP THICKNESSES: .25"/.5"/.75"/1.0"

CALIBRATION TIMES: INITIAL: 0900 CHECK: 1015 CHECK: N/A CHECK: N/A FINAL: 1120

SKETCH WITH RESULTS:

- OBSTRUCTIONS DUE TO BAY CONFIGURATION



Evaluation Required: (YES) NO (2" SQUARE GRIDS)

EXAMINER Simon Gothers LEVEL II DATE 4-4-98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4.15-98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-105

PLANT V.Y. OUTAGE RF 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 8 EN N/A

LOCATION BOTTOM OF TORUS, EXAMINED A-1 THRU L-65

MATERIAL: CS PRODUCT FORM: WROUGHT APPROX. THICK.: .60"

INSTRUMENT:
MAKE: PANAMETRICS MODEL: 26 DL + SERIAL NO.: 93129307

CRT ☐ DIGITAL ☒ HORIZONTAL LINEARITY PERFORMED ☐

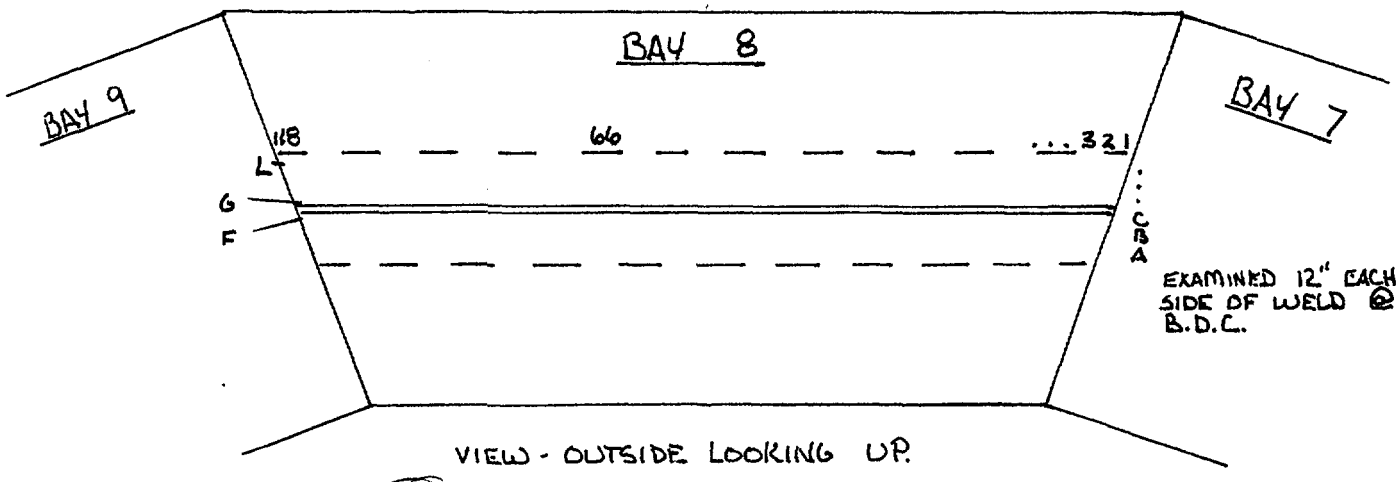
TRANSDUCER
MAKE/MODEL: PANAMETRICS/D791 RM SN # 69315 MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHZ SIZE: .312"

CAL. BLOCK
MATERIAL: CS PRODUCT FORM: 4-STEP THICKNESSES: .250"/.500"/.750"

CALIBRATION TIMES:
INITIAL: 0820 CHECK: 1005 CHECK: N/A CHECK: N/A FINAL: 1050

SKETCH WITH RESULTS:

- OBSTRUCTIONS DUE TO BAY CONFIGURATION.



Evaluation Required: (YES) NO

2" SQUARE GRIDS.

EXAMINER [signature] LEVEL II DATE 4-4-98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4.15.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

Bay 8 Bottom Prior to Blasting

Bay 8												
	A	B	C	D	E	F	G	H	I	J	K	L
1	0	0	0	0	0	0	0.589	0.59	0.598	0.602	0.594	0.591
2	0.591	0.595	0.599	0.599	0.587	0.586	0.595	0.594	0.609	0.609	0.603	0.606
3	0.577	0.601	0.602	0.601	0.597	0.597	0.607	0.604	0.607	0.609	0.609	0.609
4	0.597	0.601	0.591	0.601	0.599	0.59	0.607	0.606	0.609	0.609	0.608	0.609
5	0.602	0.603	0.602	0.601	0.596	0.581	0.608	0.607	0.61	0.61	0.609	0.608
6	0.603	0.604	0.603	0.602	0.601	0.594	0.606	0.599	0.611	0.591	0.61	0.609
7	0.604	0.602	0.604	0.604	0.601	0.603	0.605	0.605	0.611	0.609	0.609	0.608
8	0.603	0.604	0.604	0.604	0.601	0.598	0.606	0.597	0.609	0.609	0.608	0.608
9	0.606	0.606	0.604	0.604	0.606	0.602	0.606	0.608	0.609	0.609	0.597	0.608
10	0.606	0.606	0.606	0.607	0.604	0.604	0.594	0.604	0.61	0.608	0.608	0.609
11	0.607	0.606	0.606	0.606	0.607	0.603	0.602	0.601	0.611	0.607	0.608	0.609
12	0.606	0.606	0.606	0.606	0.603	0.603	0.602	0.605	0.609	0.608	0.607	0.608
13	0.606	0.59	0.606	0.606	0.598	0.599	0.591	0.599	0.607	0.607	0.608	0.608
14	0.599	0.597	0.594	0.605	0.604	0.606	0.601	0.606	0.606	0.605	0.605	0.607
15	0.604	0.604	0.608	0.607	0.603	0.607	0.604	0.606	0.607	0.605	0.605	0.606
16	0.607	0.608	0.608	0.607	0.606	0.601	0.606	0.606	0.602	0.606	0.606	0.606
17	0.609	0.601	0.602	0.584	0.584	0.598	0.597	0.59	0.585	0.604	0.604	0.604
18	0.608	0.606	0.601	0.601	0.602	0.606	0.592	0.597	0.573	0.598	0.605	0.605
19	0.609	0.607	0.608	0.608	0.608	0.604	0.595	0.592	0.598	0.604	0.605	0.603
20	0.608	0.608	0.589	0.61	0.605	0.585	0.593	0.588	0.603	0.603	0.601	0.601
21	0.608	0.608	0.608	0.609	0.601	0.6	0.592	0.6	0.604	0.602	0.603	0.603
22	0.609	0.609	0.607	0.609	0.601	0.599	0.599	0.6	0.599	0.601	0.6	0.601
23	0.609	0.609	0.609	0.609	0.592	0.605	0.602	0.599	0.601	0.601	0.6	0.593
24	0.608	0.609	0.608	0.597	0.599	0.591	0.597	0.597	0.585	0.598	0.597	0.589
25	0.611	0.611	0.609	0.606	0.598	0.594	0.596	0.598	0.598	0.597	0.596	0.594
26	0.611	0.611	0.609	0.605	0.598	0.596	0.593	0.591	0.591	0.596	0.594	0.591
27	0.61	0.61	0.611	0.611	0.609	0.606	0.586	0.579	0.579	0.574	0.581	0.585
28	0.608	0.609	0.609	0.608	0.608	0.604	0.586	0.592	0.594	0.594	0.592	0.594
29	0.61	0.61	0.609	0.61	0.607	0.606	0.599	0.597	0.598	0.596	0.598	0.598
30	0.609	0.609	0.609	0.609	0.596	0.598	0.588	0.596	0.599	0.598	0.599	0.594
31	0.608	0.609	0.61	0.611	0.606	0.6	0.602	0.6	0.601	0.601	0.601	0.6
32	0.61	0.608	0.607	0.609	0.602	0.601	0.602	0.603	0.604	0.604	0.602	0.602
33	0.609	0.609	0.612	0.609	0.602	0.606	0.591	0.596	0.607	0.605	0.604	0.604
34	0.609	0.607	0.608	0.609	0.603	0.595	0.596	0.602	0.61	0.607	0.605	0.609
35	0.608	0.609	0.608	0.609	0.609	0.594	0.59	0.609	0.609	0.609	0.608	0.608
36	0.607	0.607	0.609	0.604	0.607	0.589	0.609	0.597	0.609	0.608	0.608	0.607
37	0.609	0.608	0.607	0.608	0.599	0.593	0.609	0.612	0.611	0.608	0.608	0.611
38	0.608	0.609	0.609	0.609	0.598	0.6	0.611	0.613	0.615	0.612	0.614	0.612
39	0.592	0.609	0.607	0.608	0.607	0.592	0.605	0.614	0.614	0.615	0.615	0.614
40	0.607	0.607	0.607	0.606	0.603	0.582	0.601	0.605	0.614	0.614	0.614	0.613
41	0.608	0.606	0.608	0.607	0.603	0.579	0.599	0.609	0.617	0.614	0.614	0.614
42	0.607	0.607	0.607	0.607	0.606	0.601	0.6	0.605	0.619	0.618	0.618	0.615
43	0.606	0.606	0.606	0.605	0.604	0.599	0.596	0.599	0.616	0.619	0.618	0.617
44	0.605	0.606	0.602	0.602	0.604	0.604	0.609	0.612	0.622	0.618	0.618	0.619
45	0.604	0.604	0.599	0.604	0.603	0.601	0.619	0.618	0.613	0.621	0.618	0.62
46	0.602	0.603	0.597	0.604	0.603	0.601	0.618	0.614	0.614	0.621	0.621	0.621
47	0.602	0.604	0.604	0.604	0.604	0.601	0.62	0.616	0.618	0.617	0.618	0.621
48	0.603	0.603	0.602	0.603	0.606	0.602	0.612	0.623	0.62	0.61	0.62	0.623
49	0.602	0.602	0.605	0.602	0.602	0.597	0.612	0.608	0.61	0.623	0.624	0.624

Bay 8 Bottom Prior to Blasting

50	0.602	0.603	0.604	0.601	0.592	0.587	0.62	0.623	0.624	0.624	0.623	0.626
51	0.599	0.601	0.599	0.601	0.593	0.591	0.613	0.618	0.618	0.624	0.626	0.625
52	0.599	0.601	0.598	0.601	0.598	0.591	0.613	0.624	0.624	0.625	0.626	0.627
53	0.6	0.6	0.597	0.603	0.596	0.594	0.625	0.626	0.623	0.621	0.624	0.627
54	0.599	0.595	0.596	0.597	0.596	0.596	0.62	0.623	0.621	0.623	0.624	0.626
55	0.595	0.595	0.596	0.596	0.594	0.595	0.625	0.619	0.623	0.609	0.624	0.624
56	0.591	0.593	0.594	0.594	0.592	0.591	0.614	0.621	0.62	0.61	0.622	0.623
57	0.592	0.594	0.594	0.59	0.581	0.586	0.61	0.612	0.624	0.625	0.622	0.626
58	0.591	0.593	0.592	0.592	0.587	0.586	0.615	0.622	0.626	0.621	0.625	0.625
59	0.594	0.594	0.595	0.594	0.593	0.596	0.627	0.632	0.626	0.626	0.625	0.627
60	0.594	0.594	0.595	0.592	0.593	0.593	0.625	0.63	0.626	0.625	0.626	0.627
61	0.597	0.595	0.596	0.596	0.579	0.546	0.619	0.626	0.627	0.624	0.624	0.626
62	0.593	0.599	0.597	0.599	0.566	0.571	0.624	0.624	0.628	0.626	0.626	0.627
63	0.599	0.599	0.599	0.598	0.594	0.592	0.618	0.625	0.627	0.624	0.627	0.628
64	0.599	0.599	0.6	0.599	0.589	0.578	0.618	0.626	0.625	0.625	0.626	0.628
65	0.602	0.602	0.602	0.601	0.596	0.593	0.63	0.624	0.624	0.628	0.629	0.626
66	0.598	0.596	0.597	0.599	0.591	0.601	0.627	0.623	0.62	0.627	0.626	0.62
67	0.595	0.593	0.602	0.603	0.601	0.586	0.625	0.623	0.622	0.623	0.594	0.626
68	0.602	0.603	0.601	0.6	0.596	0.588	0.624	0.623	0.622	0.621	0.624	0.626
69	0.594	0.602	0.601	0.601	0.596	0.598	0.624	0.625	0.625	0.622	0.628	0.64
70	0.6	0.604	0.598	0.602	0.601	0.592	0.623	0.623	0.622	0.625	0.623	0.626
71	0.604	0.604	0.606	0.604	0.602	0.603	0.625	0.622	0.623	0.621	0.625	0.627
72	0.603	0.606	0.606	0.605	0.602	0.6	0.623	0.623	0.625	0.622	0.624	0.627
73	0.604	0.601	0.602	0.601	0.598	0.6	0.62	0.617	0.623	0.621	0.623	0.625
74	0.602	0.602	0.6	0.586	0.597	0.603	0.613	0.62	0.608	0.62	0.621	0.624
75	0.609	0.604	0.6	0.604	0.601	0.601	0.616	0.611	0.606	0.603	0.62	0.619
76	0.606	0.604	0.607	0.607	0.604	0.605	0.611	0.618	0.622	0.621	0.619	0.62
77	0.606	0.606	0.607	0.605	0.599	0.606	0.618	0.618	0.618	0.616	0.618	0.618
78	0.605	0.605	0.606	0.605	0.605	0.601	0.612	0.618	0.618	0.615	0.618	0.615
79	0.608	0.607	0.608	0.606	0.606	0.605	0.615	0.609	0.614	0.62	0.615	0.617
80	0.605	0.605	0.605	0.606	0.605	0.603	0.606	0.61	0.615	0.613	0.615	0.617
81	0.61	0.607	0.609	0.609	0.601	0.578	0.617	0.614	0.617	0.615	0.615	0.614
82	0.611	0.608	0.608	0.609	0.599	0.583	0.593	0.613	0.613	0.613	0.612	0.616
83	0.61	0.607	0.61	0.608	0.6	0.586	0.594	0.613	0.613	0.612	0.613	0.616
84	0.608	0.609	0.609	0.605	0.598	0.584	0.603	0.608	0.609	0.609	0.612	0.61
85	0.606	0.609	0.605	0.608	0.591	0.589	0.574	0.609	0.61	0.608	0.609	0.61
86	0.611	0.61	0.607	0.607	0.599	0.6	0.589	0.604	0.606	0.609	0.608	0.608
87	0.61	0.611	0.608	0.606	0.591	0.597	0.607	0.608	0.604	0.606	0.607	0.602
88	0.608	0.608	0.61	0.608	0.604	0.596	0.603	0.608	0.607	0.606	0.606	0.598
89	0.609	0.609	0.607	0.606	0.604	0.592	0.602	0.606	0.607	0.602	0.604	0.603
90	0.61	0.607	0.61	0.606	0.609	0.589	0.575	0.598	0.589	0.587	0.602	0.596
91	0.606	0.609	0.608	0.607	0.603	0.594	0.571	0.575	0.574	0.567	0.562	0.588
92	0.611	0.61	0.609	0.61	0.609	0.595	0.561	0.558	0.575	0.566	0.579	0.569
93	0.61	0.608	0.609	0.609	0.603	0.576	0.578	0.581	0.576	0.579	0.582	0.581
94	0.61	0.605	0.609	0.609	0.606	0.591	0.582	0.582	0.579	0.585	0.582	0.578
95	0.609	0.61	0.604	0.608	0.608	0.606	0.581	0.584	0.581	0.581	0.583	0.584
96	0.61	0.613	0.61	0.609	0.596	0.605	0.57	0.572	0.582	0.581	0.567	0.582
97	0.615	0.609	0.608	0.608	0.576	0.592	0.561	0.563	0.583	0.582	0.585	0.582
98	0.61	0.609	0.608	0.607	0.607	0.606	0.573	0.568	0.588	0.583	0.585	0.585
99	0.608	0.61	0.61	0.593	0.606	0.604	0.582	0.584	0.583	0.585	0.583	0.583
100	0.609	0.608	0.606	0.587	0.598	0.598	0.578	0.588	0.584	0.586	0.588	0.587

Bay 8 Bottom Prior to Blasting

101	0.608	0.609	0.586	0.609	0.605	0.6	0.577	0.587	0.584	0.586	0.584	0.588
102	0.609	0.609	0.607	0.606	0.608	0.584	0.584	0.581	0.585	0.585	0.587	0.588
103	0.605	0.608	0.606	0.606	0.604	0.59	0.556	0.587	0.587	0.588	0.585	0.588
104	0.606	0.608	0.609	0.607	0.605	0.578	0.571	0.578	0.583	0.587	0.583	0.586
105	0.602	0.607	0.606	0.605	0.589	0.588	0.585	0.576	0.586	0.589	0.587	0.586
106	0.603	0.606	0.607	0.605	0.605	0.601	0.584	0.587	0.57	0.585	0.584	0.586
107	0.607	0.604	0.607	0.603	0.593	0.595	0.584	0.588	0.586	0.586	0.587	0.588
108	0.606	0.606	0.604	0.603	0.602	0.604	0.588	0.586	0.589	0.587	0.587	0.585
109	0.605	0.607	0.59	0.575	0.602	0.607	0.587	0.589	0.56	0.572	0.587	0.587
110	0.605	0.604	0.6	0.592	0.599	0.605	0.586	0.584	0.567	0.573	0.585	0.583
111	0.607	0.605	0.605	0.607	0.606	0.6	0.585	0.585	0.585	0.588	0.586	0.588
112	0.609	0.606	0.603	0.602	0.598	0.604	0.584	0.587	0.588	0.587	0.586	0.589
113	0.605	0.607	0.604	0.602	0.594	0.593	0.561	0.564	0.589	0.587	0.587	0.587
114	0.604	0.604	0.601	0.605	0.6	0.603	0.573	0.564	0.588	0.586	0.591	0.586
115	0.6	0.601	0.596	0.602	0.602	0.594	0.582	0.585	0.588	0.589	0.589	0.59
116	0.609	0.602	0.59	0.602	0.601	0.6	0.569	0.584	0.586	0.586	0.59	0.589
117	0	0	0	0.602	0.598	0.602	0.584	0.579	0.586	0.59	0.587	0.587
118	0	0	0	0	0	0	0	0	0.599	0.598	0.592	0.596

THICKNESS DATA SHEET

DATA SHEET NO. N/A

PLANT VY OUTAGE 20 DRAWING NA REV. NA

SYSTEM TORUS COMPONENT/WELD NO. TORUS BOTTOM BAY 8 EN NA

LOCATION RB 213'

MATERIAL: CS PRODUCT FORM: PLATE APPROX. THICK.: .6"

INSTRUMENT: MAKE: PANAMETRICS MODEL: 26 DL PLUS SERIAL NO.: 93134807

CRT ☐ DIGITAL ☑ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 89303 MODE: ☑ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHz SIZE: .312"

CAL. BLOCK MATERIAL: CS E/R 1-1 PRODUCT FORM: STEPWEDGE THICKNESSES: .4, .5, .6, .7, .8

CALIBRATION TIMES: INITIAL: 2055 CHECK: 2145 CHECK: 2305 CHECK: 0045 FINAL: 0230

SKETCH WITH RESULTS:

THERMO S/N 162579
CAL BLK TEMP 70°
COMP TEMP 71°

MIN .528"
MAX .626"
AVERAGE .600"

Evaluation Required: (YES) NO

EXAMINER [signature] LEVEL II DATE 4/10/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4-10-98

COGNIZANT ENGINEER [signature] DATE 5/4/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

BAY 8 AFTER BLASTING

B8BOT-	A	B	C	D	E	F	G	H	I	J	K	L
1	NA	NA	NA	NA	NA	NA	0.577	0.585	0.603	0.604	0.586	0.588
2	0.586	0.588	0.594	0.594	0.582	0.583	0.593	0.590	0.606	0.606	0.601	0.603
3	0.573	0.586	0.597	0.596	0.594	0.592	0.603	0.599	0.605	0.607	0.606	0.608
4	0.595	0.600	0.597	0.599	0.597	0.585	0.603	0.602	0.605	0.606	0.608	0.606
5	0.600	0.599	0.600	0.600	0.578	0.574	0.604	0.603	0.607	0.606	0.606	0.606
6	0.600	0.601	0.600	0.601	0.588	0.585	0.599	0.597	0.607	0.606	0.607	0.607
7	0.600	0.601	0.600	0.602	0.599	0.594	0.597	0.598	0.606	0.604	0.604	0.605
8	0.600	0.600	0.600	0.604	0.597	0.594	0.601	0.597	0.604	0.606	0.607	0.606
9	0.603	0.602	0.603	0.603	0.600	0.597	0.599	0.600	0.607	0.608	0.596	0.606
10	0.602	0.602	0.602	0.602	0.599	0.597	0.591	0.601	0.607	0.607	0.605	0.606
11	0.602	0.601	0.603	0.602	0.601	0.599	0.599	0.600	0.605	0.605	0.604	0.605
12	0.602	0.599	0.603	0.603	0.601	0.596	0.596	0.600	0.603	0.606	0.605	0.605
13	0.599	0.591	0.594	0.603	0.584	0.588	0.593	0.589	0.604	0.605	0.605	0.605
14	0.597	0.597	0.591	0.603	0.601	0.602	0.602	0.602	0.601	0.603	0.604	0.605
15	0.603	0.603	0.601	0.602	0.600	0.598	0.599	0.602	0.605	0.604	0.603	0.603
16	0.607	0.606	0.602	0.583	0.598	0.602	0.603	0.606	0.601	0.606	0.606	0.604
17	0.609	0.602	0.596	0.581	0.579	0.598	0.593	0.592	0.586	0.591	0.600	0.601
18	0.606	0.605	0.598	0.591	0.600	0.602	0.588	0.597	0.571	0.593	0.603	0.603
19	0.607	0.606	0.605	0.600	0.605	0.602	0.590	0.589	0.595	0.601	0.602	0.602
20	0.606	0.605	0.603	0.603	0.588	0.584	0.588	0.594	0.596	0.600	0.601	0.599
21	0.607	0.605	0.607	0.604	0.601	0.594	0.587	0.597	0.599	0.600	0.601	0.601
22	0.607	0.606	0.605	0.604	0.599	0.595	0.596	0.596	0.598	0.598	0.597	0.600
23	0.606	0.606	0.606	0.606	0.598	0.594	0.594	0.597	0.598	0.599	0.598	0.589
24	0.607	0.608	0.605	0.606	0.599	0.598	0.595	0.597	0.596	0.597	0.596	0.587
25	0.608	0.608	0.608	0.604	0.595	0.589	0.594	0.596	0.597	0.596	0.595	0.594
26	0.610	0.610	0.605	0.603	0.595	0.584	0.588	0.582	0.591	0.592	0.590	0.591
27	0.607	0.607	0.605	0.605	0.605	0.601	0.580	0.580	0.574	0.574	0.580	0.586
28	0.607	0.607	0.606	0.606	0.606	0.601	0.580	0.587	0.592	0.589	0.592	0.594
29	0.607	0.607	0.608	0.607	0.603	0.603	0.594	0.595	0.596	0.594	0.595	0.597
30	0.607	0.606	0.606	0.607	0.590	0.597	0.584	0.592	0.597	0.598	0.597	0.595
31	0.605	0.606	0.605	0.605	0.599	0.594	0.596	0.598	0.599	0.598	0.598	0.599
32	0.609	0.607	0.606	0.606	0.598	0.599	0.598	0.602	0.602	0.603	0.601	0.599
33	0.607	0.606	0.609	0.608	0.601	0.604	0.587	0.595	0.602	0.602	0.602	0.603
34	0.606	0.607	0.607	0.605	0.594	0.591	0.598	0.598	0.599	0.606	0.605	0.605
35	0.608	0.607	0.606	0.604	0.607	0.590	0.589	0.593	0.607	0.604	0.605	0.606
36	0.606	0.606	0.604	0.604	0.602	0.588	0.605	0.595	0.605	0.605	0.606	0.607

LII 4/10/98

BAY 8 AFTER BLASTING

B8BOT-	A	B	C	D	E	F	G	H	I	J	K	L
37	0.607	0.607	0.607	0.606	0.600	0.591	0.599	0.608	0.608	0.608	0.606	0.610
38	0.606	0.606	0.607	0.608	0.599	0.587	0.602	0.612	0.611	0.612	0.613	0.610
39	0.604	0.603	0.603	0.605	0.605	0.591	0.606	0.614	0.613	0.611	0.611	0.612
40	0.605	0.605	0.604	0.604	0.601	0.592	0.597	0.602	0.611	0.611	0.612	0.613
41	0.607	0.605	0.604	0.605	0.599	0.578	0.600	0.610	0.614	0.614	0.615	0.614
42	0.606	0.606	0.605	0.603	0.601	0.594	0.599	0.603	0.615	0.617	0.618	0.613
43	0.602	0.603	0.604	0.604	0.603	0.596	0.595	0.597	0.615	0.616	0.616	0.618
44	0.603	0.603	0.598	0.599	0.597	0.598	0.604	0.609	0.616	0.616	0.617	0.617
45	0.603	0.601	0.589	0.589	0.598	0.601	0.600	0.600	0.592	0.619	0.618	0.619
46	0.601	0.600	0.598	0.602	0.602	0.600	0.617	0.616	0.614	0.616	0.618	0.617
47	0.600	0.600	0.601	0.600	0.601	0.597	0.617	0.614	0.618	0.616	0.616	0.619
48	0.599	0.601	0.599	0.600	0.600	0.600	0.611	0.621	0.617	0.607	0.619	0.621
49	0.600	0.599	0.601	0.599	0.602	0.596	0.606	0.608	0.607	0.621	0.623	0.621
50	0.597	0.597	0.599	0.596	0.591	0.585	0.619	0.621	0.621	0.623	0.622	0.625
51	0.597	0.596	0.596	0.598	0.590	0.589	0.611	0.616	0.616	0.623	0.621	0.623
52	0.596	0.594	0.596	0.596	0.593	0.593	0.603	0.619	0.624	0.622	0.621	0.624
53	0.595	0.593	0.595	0.596	0.595	0.585	0.617	0.622	0.619	0.620	0.621	0.623
54	0.595	0.594	0.595	0.593	0.594	0.591	0.619	0.620	0.619	0.621	0.624	0.625
55	0.593	0.591	0.593	0.593	0.591	0.591	0.619	0.615	0.620	0.610	0.622	0.624
56	0.590	0.592	0.587	0.591	0.591	0.585	0.608	0.619	0.620	0.604	0.621	0.624
57	0.587	0.588	0.589	0.588	0.573	0.580	0.600	0.608	0.624	0.621	0.623	0.624
58	0.587	0.588	0.588	0.588	0.574	0.582	0.611	0.622	0.623	0.621	0.623	0.620
59	0.593	0.595	0.595	0.592	0.586	0.582	0.621	0.625	0.623	0.621	0.624	0.625
60	0.591	0.590	0.590	0.587	0.587	0.589	0.623	0.622	0.625	0.624	0.623	0.624
61	0.594	0.592	0.593	0.590	0.528	0.535	0.615	0.621	0.626	0.622	0.623	0.624
62	0.589	0.592	0.592	0.593	0.565	0.566	0.615	0.622	0.624	0.623	0.624	0.625
63	0.594	0.592	0.591	0.593	0.589	0.578	0.614	0.623	0.623	0.622	0.622	0.626
64	0.597	0.593	0.596	0.594	0.574	0.573	0.616	0.622	0.624	0.623	0.625	0.625
65	0.598	0.594	0.594	0.592	0.594	0.593	0.623	0.623	0.619	0.622	0.624	0.623
66	0.598	0.594	0.596	0.593	0.593	0.595	0.620	0.621	0.617	0.620	0.621	0.620
67	0.591	0.591	0.600	0.598	0.598	0.582	0.618	0.621	0.621	0.624	0.589	0.626
68	0.599	0.598	0.596	0.596	0.592	0.580	0.623	0.619	0.620	0.623	0.624	0.626
69	0.590	0.598	0.601	0.594	0.595	0.585	0.624	0.622	0.621	0.621	0.624	0.625
70	0.600	0.601	0.598	0.600	0.600	0.591	0.623	0.620	0.619	0.624	0.623	0.620
71	0.602	0.600	0.600	0.594	0.596	0.598	0.617	0.618	0.617	0.621	0.622	0.622
72	0.603	0.602	0.602	0.599	0.600	0.598	0.617	0.619	0.620	0.619	0.621	0.622

WA Shea LII 4/10/98

BAY 8 AFTER BLASTING

B8BOT-	A	B	C	D	E	F	G	H	I	J	K	L
73	0.601	0.601	0.598	0.598	0.597	0.599	0.613	0.616	0.619	0.619	0.621	0.620
74	0.602	0.602	0.592	0.581	0.599	0.597	0.613	0.613	0.603	0.618	0.618	0.617
75	0.605	0.604	0.600	0.597	0.592	0.599	0.615	0.606	0.605	0.597	0.618	0.617
76	0.602	0.603	0.602	0.602	0.604	0.602	0.609	0.608	0.617	0.619	0.618	0.619
77	0.605	0.604	0.604	0.602	0.599	0.599	0.609	0.614	0.617	0.616	0.617	0.617
78	0.605	0.603	0.603	0.602	0.602	0.595	0.611	0.614	0.615	0.612	0.612	0.614
79	0.606	0.606	0.604	0.604	0.601	0.600	0.608	0.605	0.610	0.615	0.612	0.614
80	0.604	0.603	0.605	0.603	0.588	0.586	0.601	0.606	0.611	0.610	0.612	0.612
81	0.604	0.605	0.606	0.605	0.589	0.575	0.609	0.609	0.611	0.613	0.613	0.612
82	0.607	0.607	0.606	0.606	0.599	0.581	0.588	0.607	0.608	0.611	0.610	0.612
83	0.607	0.607	0.606	0.604	0.596	0.585	0.590	0.609	0.611	0.609	0.609	0.610
84	0.606	0.604	0.606	0.608	0.598	0.582	0.598	0.608	0.608	0.607	0.610	0.608
85	0.605	0.607	0.604	0.605	0.590	0.591	0.574	0.600	0.606	0.606	0.604	0.605
86	0.604	0.604	0.604	0.604	0.589	0.585	0.587	0.597	0.605	0.604	0.603	0.604
87	0.606	0.604	0.606	0.605	0.589	0.595	0.600	0.603	0.603	0.602	0.603	0.597
88	0.605	0.607	0.605	0.603	0.603	0.592	0.593	0.602	0.601	0.600	0.600	0.580
89	0.607	0.604	0.605	0.601	0.603	0.585	0.592	0.601	0.602	0.600	0.599	0.601
90	0.609	0.607	0.604	0.605	0.603	0.581	0.569	0.587	0.587	0.586	0.593	0.594
91	0.606	0.605	0.608	0.606	0.602	0.593	0.562	0.567	0.574	0.568	0.559	0.584
92	0.608	0.606	0.609	0.606	0.606	0.590	0.558	0.558	0.571	0.563	0.575	0.567
93	0.608	0.607	0.607	0.607	0.601	0.576	0.578	0.577	0.575	0.578	0.579	0.579
94	0.606	0.604	0.604	0.606	0.602	0.586	0.573	0.579	0.574	0.583	0.581	0.573
95	0.605	0.604	0.604	0.603	0.603	0.601	0.577	0.581	0.580	0.579	0.581	0.578
96	0.606	0.605	0.605	0.604	0.584	0.604	0.560	0.569	0.582	0.581	0.565	0.580
97	0.607	0.605	0.604	0.594	0.577	0.590	0.559	0.557	0.582	0.582	0.584	0.578
98	0.607	0.604	0.604	0.603	0.602	0.603	0.566	0.563	0.582	0.580	0.581	0.580
99	0.605	0.604	0.603	0.594	0.598	0.599	0.580	0.583	0.581	0.584	0.584	0.581
100	0.606	0.605	0.604	0.590	0.595	0.593	0.572	0.586	0.584	0.585	0.584	0.583
101	0.604	0.602	0.586	0.604	0.602	0.595	0.573	0.580	0.582	0.584	0.583	0.583
102	0.603	0.605	0.603	0.589	0.602	0.578	0.578	0.576	0.584	0.580	0.583	0.586
103	0.603	0.605	0.605	0.603	0.602	0.586	0.555	0.585	0.586	0.585	0.584	0.585
104	0.606	0.604	0.604	0.602	0.596	0.572	0.569	0.575	0.582	0.583	0.584	0.585
105	0.603	0.603	0.604	0.602	0.581	0.581	0.575	0.573	0.584	0.586	0.586	0.585
106	0.603	0.604	0.603	0.600	0.599	0.595	0.580	0.587	0.566	0.585	0.585	0.584
107	0.605	0.603	0.603	0.598	0.588	0.589	0.583	0.586	0.586	0.586	0.586	0.587
108	0.605	0.606	0.603	0.598	0.601	0.601	0.587	0.586	0.585	0.584	0.587	0.585

M. Shearer LII 4/10/98

BAY 8 AFTER BLASTING

B8BOT-	A	B	C	D	E	F	G	H	I	J	K	L
109	0.601	0.601	0.588	0.571	0.599	0.597	0.584	0.586	0.558	0.567	0.585	0.586
110	0.603	0.600	0.593	0.588	0.597	0.601	0.584	0.583	0.565	0.570	0.585	0.584
111	0.603	0.601	0.602	0.601	0.601	0.601	0.582	0.583	0.582	0.585	0.586	0.584
112	0.603	0.602	0.594	0.601	0.596	0.600	0.581	0.583	0.585	0.585	0.582	0.583
113	0.602	0.599	0.601	0.602	0.589	0.587	0.558	0.563	0.585	0.585	0.585	0.585
114	0.601	0.599	0.597	0.599	0.595	0.597	0.572	0.559	0.584	0.586	0.586	0.584
115	0.597	0.601	0.595	0.600	0.600	0.598	0.581	0.580	0.584	0.587	0.586	0.587
116	0.601	0.592	0.589	0.598	0.593	0.599	0.562	0.584	0.585	0.584	0.587	0.588
117	NA	NA	NA	0.598	0.596	0.600	0.575	0.581	0.578	0.588	0.586	0.584
118	NA	NA	NA	NA	NA	NA	NA	NA	0.594	0.594	0.589	0.589

TWSheu LII 4/10/98

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BAY 8 BOTTOM PRIOR TO BLASTING

1	A	B	C	D	E	F	G	H	I	J	K	L
50	0.602	0.603	0.604	0.601	0.592	0.587	0.62	0.623	0.624	0.624	0.623	0.626
51	0.599	0.601	0.599	0.601	0.593	0.591	0.613	0.618	0.618	0.624	0.626	0.625
52	0.599	0.601	0.598	0.601	0.598	0.591	0.613	0.624	0.624	0.625	0.626	0.627
53	0.6	0.6	0.597	0.603	0.596	0.594	0.625	0.626	0.623	0.621	0.624	0.627
54	0.599	0.595	0.596	0.597	0.596	0.596	0.62	0.623	0.621	0.623	0.624	0.626
55	0.595	0.595	0.596	0.596	0.594	0.595	0.625	0.619	0.623	0.609	0.624	0.624
56	0.591	0.593	0.594	0.594	0.592	0.591	0.614	0.621	0.62	0.61	0.622	0.623
57	0.592	0.594	0.594	0.59	0.581	0.586	0.61	0.612	0.624	0.625	0.622	0.626
58	0.591	0.593	0.592	0.592	0.587	0.586	0.615	0.622	0.626	0.621	0.625	0.625
59	0.594	0.594	0.595	0.594	0.593	0.596	0.627	0.632	0.626	0.626	0.625	0.627
60	0.594	0.594	0.595	0.592	0.593	0.593	0.625	0.63	0.626	0.625	0.626	0.627
61	0.597	0.595	0.596	0.596	0.579	0.546	0.619	0.626	0.627	0.624	0.624	0.626
62	0.593	0.599	0.597	0.599	0.566	0.571	0.624	0.624	0.628	0.626	0.626	0.627
63	0.599	0.599	0.599	0.598	0.594	0.592	0.618	0.625	0.627	0.624	0.627	0.628
64	0.599	0.599	0.6	0.599	0.589	0.578	0.618	0.626	0.625	0.625	0.626	0.628
65	0.602	0.602	0.602	0.601	0.596	0.593	0.63	0.624	0.624	0.628	0.629	0.626
66	0.598	0.596	0.597	0.599	0.591	0.601	0.627	0.623	0.62	0.627	0.626	0.62
67	0.595	0.593	0.602	0.603	0.601	0.586	0.625	0.623	0.622	0.623	0.594	0.626
68	0.602	0.603	0.601	0.6	0.596	0.588	0.624	0.623	0.622	0.621	0.624	0.626
69	0.594	0.602	0.601	0.601	0.596	0.598	0.624	0.625	0.625	0.622	0.628	0.64
70	0.6	0.604	0.598	0.602	0.601	0.592	0.623	0.623	0.622	0.625	0.623	0.626
71	0.604	0.604	0.606	0.604	0.602	0.603	0.625	0.622	0.623	0.621	0.625	0.627
72	0.603	0.606	0.606	0.605	0.602	0.6	0.623	0.623	0.625	0.622	0.624	0.627
73	0.604	0.601	0.602	0.601	0.598	0.6	0.62	0.617	0.623	0.621	0.623	0.625
74	0.602	0.602	0.6	0.586	0.597	0.603	0.613	0.62	0.608	0.62	0.621	0.624
75	0.609	0.604	0.6	0.604	0.601	0.601	0.616	0.611	0.606	0.603	0.62	0.619
76	0.606	0.604	0.607	0.607	0.604	0.605	0.611	0.618	0.622	0.621	0.619	0.62
77	0.606	0.606	0.607	0.605	0.599	0.606	0.618	0.618	0.618	0.616	0.618	0.618
78	0.605	0.605	0.606	0.605	0.605	0.601	0.612	0.618	0.618	0.615	0.618	0.615
79	0.608	0.607	0.608	0.606	0.606	0.605	0.615	0.609	0.614	0.62	0.615	0.617
80	0.605	0.605	0.605	0.606	0.605	0.603	0.606	0.61	0.615	0.613	0.615	0.617
81	0.61	0.607	0.609	0.609	0.601	0.578	0.617	0.614	0.617	0.615	0.615	0.614
82	0.611	0.608	0.608	0.609	0.599	0.583	0.593	0.613	0.613	0.613	0.612	0.616
83	0.61	0.607	0.61	0.608	0.6	0.586	0.594	0.613	0.613	0.612	0.613	0.616
84	0.608	0.609	0.609	0.605	0.598	0.584	0.603	0.608	0.609	0.609	0.612	0.61
85	0.606	0.609	0.605	0.608	0.591	0.589	0.574	0.609	0.61	0.608	0.609	0.61
86	0.611	0.61	0.607	0.607	0.599	0.6	0.589	0.604	0.606	0.609	0.608	0.608
87	0.61	0.611	0.608	0.606	0.591	0.597	0.607	0.608	0.604	0.606	0.607	0.602
88	0.608	0.608	0.61	0.608	0.604	0.596	0.603	0.608	0.607	0.606	0.606	0.598
89	0.609	0.609	0.607	0.606	0.604	0.592	0.602	0.606	0.607	0.602	0.604	0.603
90	0.61	0.607	0.61	0.606	0.609	0.589	0.575	0.598	0.589	0.587	0.602	0.596
91	0.606	0.609	0.608	0.607	0.603	0.594	0.571	0.575	0.574	0.567	0.562	0.588
92	0.611	0.61	0.609	0.61	0.609	0.595	0.561	0.558	0.575	0.566	0.579	0.569
93	0.61	0.608	0.609	0.609	0.603	0.576	0.578	0.581	0.576	0.579	0.582	0.581
94	0.61	0.605	0.609	0.609	0.606	0.591	0.582	0.582	0.579	0.585	0.582	0.578
95	0.609	0.61	0.604	0.608	0.608	0.606	0.581	0.584	0.581	0.581	0.583	0.584
96	0.61	0.613	0.61	0.609	0.596	0.605	0.57	0.572	0.582	0.581	0.567	0.582
97	0.615	0.609	0.608	0.608	0.576	0.592	0.561	0.563	0.583	0.582	0.585	0.582
98	0.61	0.609	0.608	0.607	0.607	0.606	0.573	0.568	0.588	0.583	0.585	0.585
99	0.608	0.61	0.61	0.593	0.606	0.604	0.582	0.584	0.583	0.585	0.583	0.583

BAY 8 BOTTOM PRIOR TO BLASTING

1	A	B	C	D	E	F	G	H	I	J	K	L
100	0.609	0.608	0.606	0.587	0.598	0.598	0.578	0.588	0.584	0.586	0.588	0.587
101	0.608	0.609	0.586	0.609	0.605	0.6	0.577	0.587	0.584	0.586	0.584	0.588
102	0.609	0.609	0.607	0.606	0.608	0.584	0.584	0.581	0.585	0.585	0.587	0.588
103	0.605	0.608	0.606	0.606	0.604	0.59	0.556	0.587	0.587	0.588	0.585	0.588
104	0.606	0.608	0.609	0.607	0.605	0.578	0.571	0.578	0.583	0.587	0.583	0.586
105	0.602	0.607	0.606	0.605	0.589	0.588	0.585	0.576	0.586	0.589	0.587	0.586
106	0.603	0.606	0.607	0.605	0.605	0.601	0.584	0.587	0.57	0.585	0.584	0.586
107	0.607	0.604	0.607	0.603	0.593	0.595	0.584	0.588	0.586	0.586	0.587	0.588
108	0.606	0.606	0.604	0.603	0.602	0.604	0.588	0.586	0.589	0.587	0.587	0.585
109	0.605	0.607	0.59	0.575	0.602	0.607	0.587	0.589	0.56	0.572	0.587	0.587
110	0.605	0.604	0.6	0.592	0.599	0.605	0.586	0.584	0.567	0.573	0.585	0.583
111	0.607	0.605	0.605	0.607	0.606	0.6	0.585	0.585	0.585	0.588	0.586	0.588
112	0.609	0.606	0.603	0.602	0.598	0.604	0.584	0.587	0.588	0.587	0.586	0.589
113	0.605	0.607	0.604	0.602	0.594	0.593	0.561	0.564	0.589	0.587	0.587	0.587
114	0.604	0.604	0.601	0.605	0.6	0.603	0.573	0.564	0.588	0.586	0.591	0.586
115	0.6	0.601	0.596	0.602	0.602	0.594	0.582	0.585	0.588	0.589	0.589	0.59
116	0.609	0.602	0.59	0.602	0.601	0.6	0.569	0.584	0.586	0.586	0.59	0.589
117	0	0	0	0.602	0.598	0.602	0.584	0.579	0.586	0.59	0.587	0.587
118	0	0	0	0	0	0	0	0	0.599	0.598	0.592	0.596

BAY 8 BOTTOM PRIOR TO BLASTING

BAY 8												
	A	B	C	D	E	F	G	H	I	J	K	L
1	0	0	0	0	0	0	0.589	0.59	0.598	0.602	0.594	0.591
2	0.591	0.595	0.599	0.599	0.587	0.586	0.595	0.594	0.609	0.609	0.603	0.606
3	0.577	0.601	0.602	0.601	0.597	0.597	0.607	0.604	0.607	0.609	0.609	0.609
4	0.597	0.601	0.591	0.601	0.599	0.59	0.607	0.606	0.609	0.609	0.608	0.609
5	0.602	0.603	0.602	0.601	0.596	0.581	0.608	0.607	0.61	0.61	0.609	0.608
6	0.603	0.604	0.603	0.602	0.601	0.594	0.606	0.599	0.611	0.591	0.61	0.609
7	0.604	0.602	0.604	0.604	0.601	0.603	0.605	0.605	0.611	0.609	0.609	0.608
8	0.603	0.604	0.604	0.604	0.601	0.598	0.606	0.597	0.609	0.609	0.608	0.608
9	0.606	0.606	0.604	0.604	0.606	0.602	0.606	0.608	0.609	0.609	0.597	0.608
10	0.606	0.606	0.606	0.607	0.604	0.604	0.594	0.604	0.61	0.608	0.608	0.609
11	0.607	0.606	0.606	0.606	0.607	0.603	0.602	0.601	0.611	0.607	0.608	0.609
12	0.606	0.606	0.606	0.606	0.603	0.603	0.602	0.605	0.609	0.608	0.607	0.608
13	0.606	0.59	0.606	0.606	0.598	0.599	0.591	0.599	0.607	0.607	0.608	0.608
14	0.599	0.597	0.594	0.605	0.604	0.606	0.601	0.606	0.606	0.605	0.605	0.607
15	0.604	0.604	0.608	0.607	0.603	0.607	0.604	0.606	0.607	0.605	0.605	0.606
16	0.607	0.608	0.608	0.607	0.606	0.601	0.606	0.606	0.602	0.606	0.606	0.606
17	0.609	0.601	0.602	0.584	0.584	0.598	0.597	0.59	0.585	0.604	0.604	0.604
18	0.608	0.606	0.601	0.601	0.602	0.606	0.592	0.597	0.573	0.598	0.605	0.605
19	0.609	0.607	0.608	0.608	0.608	0.604	0.595	0.592	0.598	0.604	0.605	0.603
20	0.608	0.608	0.589	0.61	0.605	0.585	0.593	0.588	0.603	0.603	0.601	0.601
21	0.608	0.608	0.608	0.609	0.601	0.6	0.592	0.6	0.604	0.602	0.603	0.603
22	0.609	0.609	0.607	0.609	0.601	0.599	0.599	0.6	0.599	0.601	0.6	0.601
23	0.609	0.609	0.609	0.609	0.592	0.605	0.602	0.599	0.601	0.601	0.6	0.593
24	0.608	0.609	0.608	0.597	0.599	0.591	0.597	0.597	0.585	0.598	0.597	0.589
25	0.611	0.611	0.609	0.606	0.598	0.594	0.596	0.598	0.598	0.597	0.596	0.594
26	0.611	0.611	0.609	0.605	0.598	0.596	0.593	0.591	0.591	0.596	0.594	0.591
27	0.61	0.61	0.611	0.611	0.609	0.606	0.586	0.579	0.579	0.574	0.581	0.585
28	0.608	0.609	0.609	0.608	0.608	0.604	0.586	0.592	0.594	0.594	0.592	0.594
29	0.61	0.61	0.609	0.61	0.607	0.606	0.599	0.597	0.598	0.596	0.598	0.598
30	0.609	0.609	0.609	0.609	0.596	0.598	0.588	0.596	0.599	0.598	0.599	0.594
31	0.608	0.609	0.61	0.611	0.606	0.6	0.602	0.6	0.601	0.601	0.601	0.6
32	0.61	0.608	0.607	0.609	0.602	0.601	0.602	0.603	0.604	0.604	0.602	0.602
33	0.609	0.609	0.612	0.609	0.602	0.606	0.591	0.596	0.607	0.605	0.604	0.604
34	0.609	0.607	0.608	0.609	0.603	0.595	0.596	0.602	0.61	0.607	0.605	0.609
35	0.608	0.609	0.608	0.609	0.609	0.594	0.59	0.609	0.609	0.609	0.608	0.608
36	0.607	0.607	0.609	0.604	0.607	0.589	0.609	0.597	0.609	0.608	0.608	0.607
37	0.609	0.608	0.607	0.608	0.599	0.593	0.609	0.612	0.611	0.608	0.608	0.611
38	0.608	0.609	0.609	0.609	0.598	0.6	0.611	0.613	0.615	0.612	0.614	0.612
39	0.592	0.609	0.607	0.608	0.607	0.592	0.605	0.614	0.614	0.615	0.615	0.614
40	0.607	0.607	0.607	0.606	0.603	0.582	0.601	0.605	0.614	0.614	0.614	0.613
41	0.608	0.606	0.608	0.607	0.603	0.579	0.599	0.609	0.617	0.614	0.614	0.614
42	0.607	0.607	0.607	0.607	0.606	0.601	0.6	0.605	0.619	0.618	0.618	0.615
43	0.606	0.606	0.606	0.605	0.604	0.599	0.596	0.599	0.616	0.619	0.618	0.617
44	0.605	0.606	0.602	0.602	0.604	0.604	0.609	0.612	0.622	0.618	0.618	0.619
45	0.604	0.604	0.599	0.604	0.603	0.601	0.619	0.618	0.613	0.621	0.618	0.62
46	0.602	0.603	0.597	0.604	0.603	0.601	0.618	0.614	0.614	0.621	0.621	0.621
47	0.602	0.604	0.604	0.604	0.604	0.601	0.62	0.616	0.618	0.617	0.618	0.621
48	0.603	0.603	0.602	0.603	0.606	0.602	0.612	0.623	0.62	0.61	0.62	0.623
49	0.602	0.602	0.605	0.602	0.602	0.597	0.612	0.608	0.61	0.623	0.624	0.624

0926

956

1020

1042

G I

Prior to Blasting

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-84

PLANT V. Y. OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 16 EN N/A

LOCATION BOTTOM OF TORUS, BAY 16

MATERIAL: C/S PRODUCT FORM: WROUGHT APPROX. THICK.: 0.60"

INSTRUMENT MAKE: PANAMETRICS MODEL: 26 DL+ SERIAL NO.: 93134807

CRT ☐ DIGITAL ☒ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791 RM S/N 69311 MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHZ SIZE: .312"

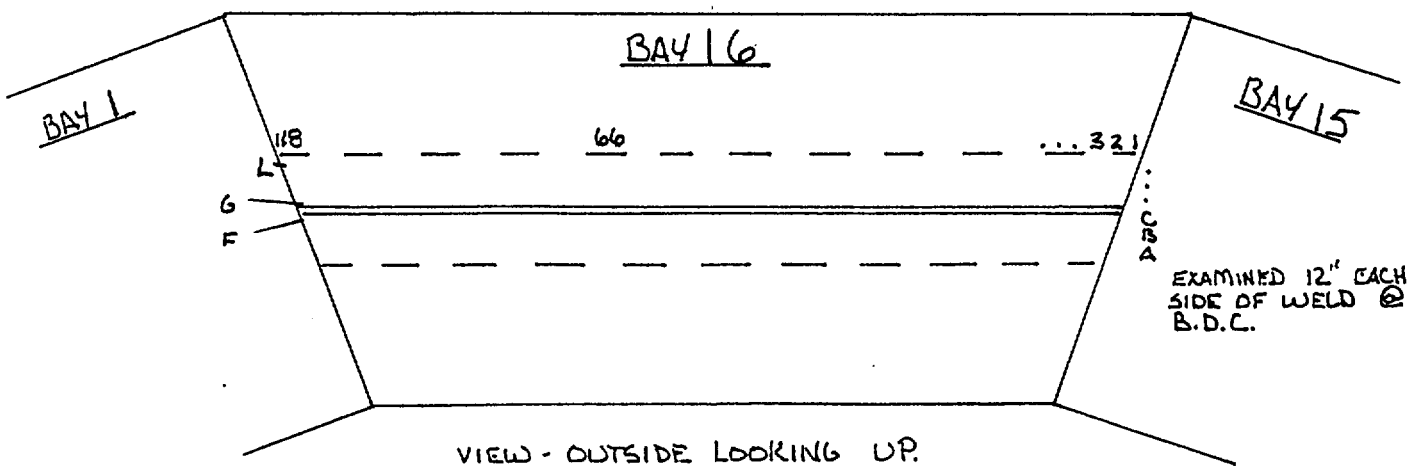
CAL. BLOCK MATERIAL: C/S PRODUCT FORM: STEPWEDGE THICKNESSES: .25", .50", .75"

CALIBRATION TIMES: INITIAL: 0848 CHECK: 1026 CHECK: 1210 CHECK: 1340 FINAL: 1456

THERMOMETER S/N - 162556 CAL BLOCK - 73°F COMP. - 70°F

SKETCH WITH RESULTS:

OBSTRUCTIONS DUE TO BAY CONFIGURATION.



Evaluation Required: (YES) NO

EXAMINER [signature] Janet K Miller LEVEL II DATE 4-4-98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4.4.98

COGNIZANT ENGINEER [signature] DATE 5/9/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

BAY16-	A	B	C	D	E	F	G	H	I	J	K	L
1	0	0	0	0	0	0	0.634	0.598	0.605	0.608	0.604	0.602
2	0.595	0.593	0.59	0.595	0.596	0.599	0.601	0.604	0.596	0.589	0.603	0.61
3	0.599	0.601	0.601	0.602	0.578	0.598	0.597	0.603	0.604	0.594	0.605	0.613
4	0.601	0.601	0.604	0.591	0.595	0.596	0.609	0.612	0.611	0.606	0.607	0.612
5	0.601	0.602	0.603	0.589	0.581	0.592	0.606	0.61	0.609	0.607	0.611	0.613
6	0.602	0.603	0.594	0.595	0.595	0.6	0.615	0.605	0.612	0.611	0.614	0.611
7	0.603	0.604	0.605	0.597	0.605	0.604	0.603	0.603	0.615	0.609	0.612	0.612
8	0.604	0.607	0.592	0.606	0.603	0.599	0.611	0.612	0.601	0.609	0.612	0.614
9	0.607	0.607	0.607	0.608	0.603	0.602	0.606	0.622	0.605	0.605	0.614	0.611
10	0.606	0.607	0.593	0.603	0.608	0.6	0.614	0.597	0.607	0.609	0.612	0.612
11	0.61	0.601	0.604	0.61	0.605	0.613	0.609	0.605	0.615	0.614	0.615	0.61
12	0.607	0.611	0.61	0.611	0.609	0.597	0.608	0.618	0.615	0.608	0.609	0.614
13	0.611	0.61	0.609	0.611	0.612	0.606	0.605	0.612	0.612	0.607	0.613	0.614
14	0.611	0.61	0.607	0.606	0.612	0.605	0.601	0.62	0.612	0.615	0.615	0.613
15	0.61	0.612	0.614	0.6	0.613	0.614	0.61	0.608	0.611	0.612	0.611	0.61
16	0.611	0.612	0.61	0.611	0.615	0.615	0.612	0.613	0.612	0.613	0.613	0.611
17	0.612	0.614	0.609	0.607	0.613	0.614	0.612	0.611	0.614	0.606	0.608	0.612
18	0.615	0.612	0.614	0.613	0.613	0.607	0.611	0.616	0.617	0.612	0.611	0.612
19	0.614	0.615	0.614	0.617	0.614	0.615	0.609	0.61	0.617	0.61	0.611	0.61
20	0.613	0.614	0.613	0.614	0.61	0.603	0.606	0.606	0.608	0.616	0.615	0.61
21	0.613	0.614	0.614	0.613	0.613	0.611	0.592	0.606	0.609	0.609	0.608	0.601
22	0.612	0.614	0.612	0.617	0.613	0.604	0.602	0.61	0.606	0.609	0.606	0.606
23	0.615	0.616	0.613	0.614	0.616	0.632	0.598	0.634	0.607	0.61	0.608	0.608
24	0.611	0.616	0.614	0.613	0.614	0.609	0.599	0.605	0.605	0.606	0.604	0.618
25	0.612	0.613	0.613	0.613	0.612	0.605	0.605	0.601	0.604	0.605	0.606	0.605
26	0.613	0.611	0.614	0.614	0.617	0.601	0.628	0.602	0.603	0.605	0.603	0.608
27	0.615	0.612	0.614	0.615	0.605	0.604	0.597	0.596	0.601	0.598	0.606	0.586
28	0.614	0.615	0.615	0.618	0.613	0.606	0.605	0.598	0.599	0.599	0.589	0.621
29	0.59	0.614	0.617	0.614	0.602	0.606	0.604	0.595	0.6	0.598	0.597	0.592
30	0.613	0.614	0.614	0.63	0.603	0.602	0.591	0.59	0.6	0.599	0.597	0.599
31	0.614	0.616	0.614	0.614	0.606	0.613	0.605	0.601	0.602	0.6	0.599	0.599
32	0.611	0.613	0.615	0.611	0.615	0.615	0.606	0.602	0.602	0.601	0.6	0.599
33	0.614	0.613	0.613	0.615	0.617	0.608	0.604	0.608	0.604	0.603	0.602	0.617
34	0.614	0.611	0.613	0.614	0.609	0.604	0.602	0.605	0.607	0.607	0.609	0.607
35	0.614	0.613	0.616	0.61	0.61	0.61	0.598	0.61	0.609	0.605	0.609	0.607
36	0.613	0.613	0.617	0.617	0.614	0.614	0.612	0.611	0.611	0.611	0.61	0.611

BAY16-	A	B	C	D	E	F	G	H	I	J	K	L
37	0.613	0.615	0.614	0.614	0.616	0.605	0.604	0.613	0.618	0.61	0.611	0.613
38	0.614	0.615	0.614	0.644	0.612	0.603	0.611	0.615	0.615	0.613	0.609	0.614
39	0.614	0.616	0.616	0.621	0.612	0.598	0.611	0.611	0.612	0.614	0.617	0.613
40	0.612	0.614	0.613	0.614	0.61	0.604	0.603	0.613	0.617	0.613	0.614	0.613
41	0.616	0.613	0.612	0.613	0.609	0.61	0.612	0.617	0.611	0.615	0.619	0.615
42	0.613	0.613	0.629	0.612	0.609	0.61	0.616	0.616	0.616	0.615	0.614	0.614
43	0.611	0.611	0.611	0.612	0.609	0.606	0.617	0.616	0.617	0.617	0.616	0.615
44	0.611	0.611	0.611	0.613	0.611	0.6	0.613	0.62	0.618	0.618	0.617	0.618
45	0.612	0.613	0.613	0.613	0.608	0.618	0.611	0.619	0.62	0.622	0.619	0.619
46	0.611	0.615	0.613	0.611	0.612	0.595	0.615	0.619	0.621	0.619	0.617	0.618
47	0.61	0.61	0.611	0.612	0.608	0.594	0.611	0.619	0.62	0.619	0.621	0.621
48	0.609	0.61	0.61	0.605	0.608	0.599	0.616	0.648	0.62	0.62	0.621	0.622
49	0.608	0.608	0.606	0.604	0.607	0.603	0.615	0.61	0.62	0.619	0.619	0.619
50	0.607	0.609	0.611	0.605	0.605	0.602	0.614	0.622	0.621	0.647	0.616	0.618
51	0.607	0.611	0.611	0.609	0.609	0.603	0.611	0.622	0.62	0.617	0.621	0.618
52	0.609	0.609	0.597	0.594	0.607	0.604	0.618	0.626	0.625	0.608	0.62	0.619
53	0.608	0.608	0.596	0.597	0.607	0.589	0.619	0.622	0.613	0.607	0.621	0.619
54	0.61	0.606	0.606	0.606	0.597	0.592	0.616	0.624	0.622	0.622	0.621	0.618
55	0.611	0.606	0.605	0.607	0.604	0.594	0.619	0.623	0.622	0.62	0.62	0.62
56	0.606	0.603	0.6	0.599	0.606	0.6	0.624	0.618	0.624	0.621	0.62	0.621
57	0.604	0.606	0.596	0.604	0.597	0.606	0.613	0.612	0.622	0.622	0.622	0.621
58	0.593	0.601	0.595	0.597	0.596	0.598	0.614	0.622	0.622	0.625	0.621	0.621
59	0.603	0.587	0.622	0.595	0.59	0.596	0.618	0.622	0.623	0.621	0.622	0.62
60	0.599	0.584	0.592	0.585	0.593	0.611	0.622	0.624	0.625	0.621	0.62	0.621
61	0.601	0.601	0.593	0.598	0.599	0.601	0.607	0.619	0.62	0.62	0.619	0.618
62	0.601	0.604	0.605	0.596	0.605	0.604	0.616	0.622	0.622	0.619	0.619	0.62
63	0.603	0.601	0.603	0.602	0.602	0.597	0.621	0.621	0.622	0.621	0.622	0.62
64	0.601	0.581	0.604	0.601	0.597	0.601	0.614	0.621	0.624	0.619	0.619	0.621
65	0.605	0.579	0.601	0.604	0.609	0.608	0.619	0.622	0.62	0.619	0.619	0.617
66	0.605	0.603	0.603	0.604	0.607	0.605	0.621	0.621	0.621	0.619	0.619	0.617
67	0.602	0.603	0.604	0.604	0.608	0.606	0.622	0.622	0.621	0.619	0.617	0.618
68	0.602	0.58	0.603	0.605	0.608	0.607	0.611	0.62	0.617	0.62	0.612	0.617
69	0.603	0.603	0.605	0.609	0.611	0.599	0.615	0.611	0.613	0.618	0.618	0.617
70	0.62	0.589	0.597	0.6	0.608	0.604	0.61	0.612	0.566	0.614	0.617	0.616
71	0.6	0.623	0.594	0.609	0.612	0.605	0.608	0.606	0.614	0.587	0.613	0.614
72	0.601	0.606	0.605	0.605	0.612	0.602	0.612	0.614	0.617	0.617	0.614	0.616

BAY16-	A	B	C	D	E	F	G	H	I	J	K	L
73	0.604	0.604	0.606	0.608	0.609	0.611	0.605	0.617	0.617	0.615	0.616	0.618
74	0.604	0.603	0.604	0.602	0.61	0.606	0.607	0.616	0.617	0.616	0.614	0.614
75	0.605	0.606	0.601	0.6	0.606	0.603	0.615	0.613	0.615	0.613	0.613	0.613
76	0.605	0.604	0.605	0.608	0.61	0.6	0.612	0.616	0.614	0.616	0.614	0.613
77	0.607	0.606	0.608	0.61	0.614	0.61	0.601	0.608	0.614	0.616	0.609	0.611
78	0.605	0.605	0.608	0.609	0.61	0.604	0.604	0.606	0.611	0.61	0.607	0.609
79	0.609	0.603	0.607	0.609	0.61	0.602	0.601	0.605	0.61	0.61	0.606	0.609
80	0.604	0.608	0.608	0.609	0.605	0.611	0.597	0.611	0.606	0.608	0.605	0.607
81	0.607	0.608	0.608	0.602	0.61	0.612	0.597	0.609	0.603	0.608	0.607	0.605
82	0.607	0.608	0.608	0.609	0.611	0.606	0.604	0.608	0.594	0.605	0.606	0.605
83	0.606	0.607	0.603	0.607	0.609	0.612	0.603	0.606	0.612	0.606	0.602	0.603
84	0.607	0.606	0.608	0.61	0.589	0.603	0.597	0.605	0.607	0.604	0.603	0.603
85	0.606	0.608	0.607	0.604	0.611	0.611	0.603	0.602	0.603	0.601	0.602	0.603
86	0.606	0.611	0.607	0.611	0.61	0.615	0.605	0.602	0.601	0.607	0.6	0.602
87	0.607	0.608	0.608	0.61	0.612	0.615	0.596	0.598	0.601	0.605	0.609	0.6
88	0.607	0.608	0.608	0.61	0.612	0.605	0.591	0.59	0.597	0.598	0.597	0.597
89	0.605	0.607	0.608	0.61	0.604	0.6	0.587	0.588	0.597	0.596	0.594	0.593
90	0.608	0.605	0.607	0.613	0.614	0.598	0.585	0.592	0.593	0.594	0.593	0.591
91	0.608	0.604	0.606	0.607	0.608	0.606	0.583	0.582	0.588	0.594	0.595	0.584
92	0.605	0.606	0.606	0.609	0.611	0.603	0.574	0.584	0.572	0.574	0.582	0.589
93	0.605	0.604	0.607	0.597	0.612	0.629	0.58	0.586	0.585	0.584	0.583	0.583
94	0.605	0.606	0.608	0.612	0.61	0.611	0.577	0.571	0.586	0.584	0.584	0.585
95	0.605	0.604	0.607	0.608	0.607	0.614	0.573	0.58	0.585	0.584	0.585	0.582
96	0.604	0.605	0.605	0.61	0.609	0.599	0.584	0.587	0.585	0.584	0.583	0.584
97	0.605	0.605	0.605	0.606	0.609	0.601	0.585	0.583	0.579	0.577	0.585	0.584
98	0.6	0.604	0.605	0.605	0.605	0.598	0.587	0.586	0.629	0.584	0.585	0.586
99	0.604	0.606	0.596	0.607	0.598	0.604	0.588	0.587	0.585	0.585	0.586	0.586
100	0.588	0.589	0.595	0.592	0.604	0.605	0.592	0.583	0.583	0.588	0.585	0.584
101	0.602	0.603	0.601	0.603	0.601	0.599	0.586	0.579	0.574	0.571	0.587	0.586
102	0.602	0.601	0.604	0.604	0.597	0.596	0.577	0.583	0.578	0.586	0.585	0.589
103	0.601	0.601	0.602	0.604	0.605	0.597	0.566	0.573	0.573	0.586	0.586	0.586
104	0.601	0.601	0.603	0.606	0.601	0.595	0.598	0.582	0.589	0.586	0.586	0.586
105	0.601	0.6	0.601	0.603	0.603	0.599	0.587	0.583	0.587	0.587	0.589	0.588
106	0.6	0.6	0.601	0.603	0.602	0.603	0.578	0.58	0.589	0.598	0.588	0.588
107	0.602	0.601	0.602	0.605	0.619	0.608	0.585	0.587	0.58	0.587	0.59	0
108	0.603	0.602	0.602	0.603	0.606	0.596	0.588	0.588	0.588	0.588	0.588	0.589

BAY16-	A	B	C	D	E	F	G	H	I	J	K	L
109	0.6	0.599	0.601	0.603	0.604	0.601	0.588	0.588	0.587	0.588	0.589	0.586
110	0.599	0.599	0.6	0.589	0.605	0.602	0.571	0.589	0.589	0.587	0.586	0.589
111	0.598	0.6	0.599	0.596	0.593	0.587	0.576	0.58	0.587	0.587	0.588	0.586
112	0.599	0.598	0.599	0.6	0.606	0.596	0.577	0.579	0.587	0.588	0.584	0.588
113	0.598	0.598	0.598	0.594	0.597	0.606	0.589	0.585	0.587	0.588	0.587	0.587
114	0.596	0.597	0.597	0.612	0.603	0.602	0.591	0.588	0.586	0.581	0.587	0.585
115	0.591	0.589	0.597	0.598	0.6	0.598	0.583	0.587	0.588	0.591	0.588	0.592
116	0.573	0.595	0.588	0.59	0.583	0.598	0.583	0.589	0.589	0.587	0.587	0.59
117	0	0	0.592	0.588	0.59	0.59	0.578	0.581	0.596	0.592	0.591	0.59
118	0	0	0	0	0	0	0	0.599	0.589	0.585	0.584	0.591

1 of 2

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-85

PLANT V. Y. OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 16 A-1 THRU L-69 EN N/A

LOCATION BOTTOM OF TORUS, RB 232'

MATERIAL: C/S PRODUCT FORM: WROUGHT APPROX. THICK.: 0.6"

INSTRUMENT MAKE: PANAMETRICS MODEL: 26 DL+ SERIAL NO.: 93134807

CRT ☐ DIGITAL ☒ HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: PANAMETRICS D791-RM S/N 69315 MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 MHZ SIZE: .312

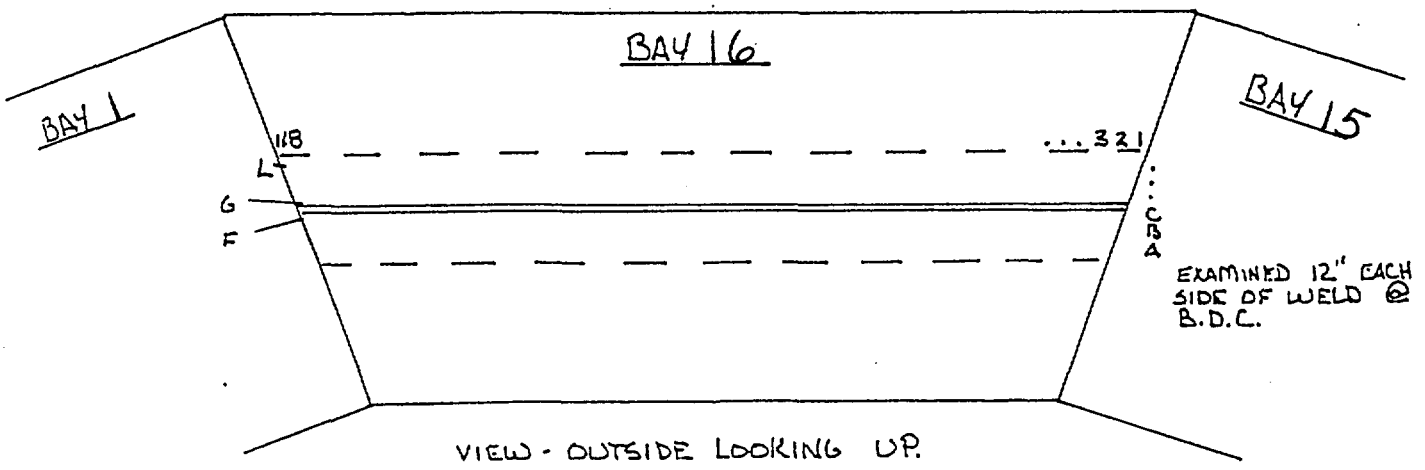
CAL. BLOCK MATERIAL: C/S PRODUCT FORM: STEPWEDGE THICKNESSES: .25", .50", .75", 1.0"

CALIBRATION TIMES: INITIAL: 0918 CHECK: 1115 CHECK: 1229 CHECK: 1310 FINAL: 1426

THERMOMETER - 162579 COMP - 73°F CAL BLOCK - 75°F

SKETCH WITH RESULTS:

OBSTRUCTIONS DUE TO BAY CONFIGURATION.



Evaluation Required: (YES) NO

* EXAM AFTER SAND BLAST

EXAMINER Jerry Myl LEVEL II DATE 4-9-98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) SMPSing DATE 4-10-98

COGNIZANT ENGINEER JCW DATE 5/9/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

292

THICKNESS DATA SHEET

DATA SHEET NO. YA-UT-112-85

PLANT Vermont Yankee OUTAGE 20 DRAWING N/A REV. N/A

SYSTEM TORUS COMPONENT/WELD NO. BAY 16 A-70 thru L-118 EN N/A

LOCATION TORUS Room RB 232'

MATERIAL: CS PRODUCT FORM: WROUGHT APPROX. THICK.: .584"

INSTRUMENT MAKE: Panametrics MODEL: 26 DL+ SERIAL NO.: 93129207

CRT ☐ DIGITAL ☒ S/N 69318 HORIZONTAL LINEARITY PERFORMED ☐

TRANSDUCER MAKE/MODEL: Panametrics D791 MODE: ☒ PITCH/CATCH ☐ PULSE/ECHO FREQUENCY: 5.0 SIZE: .312"

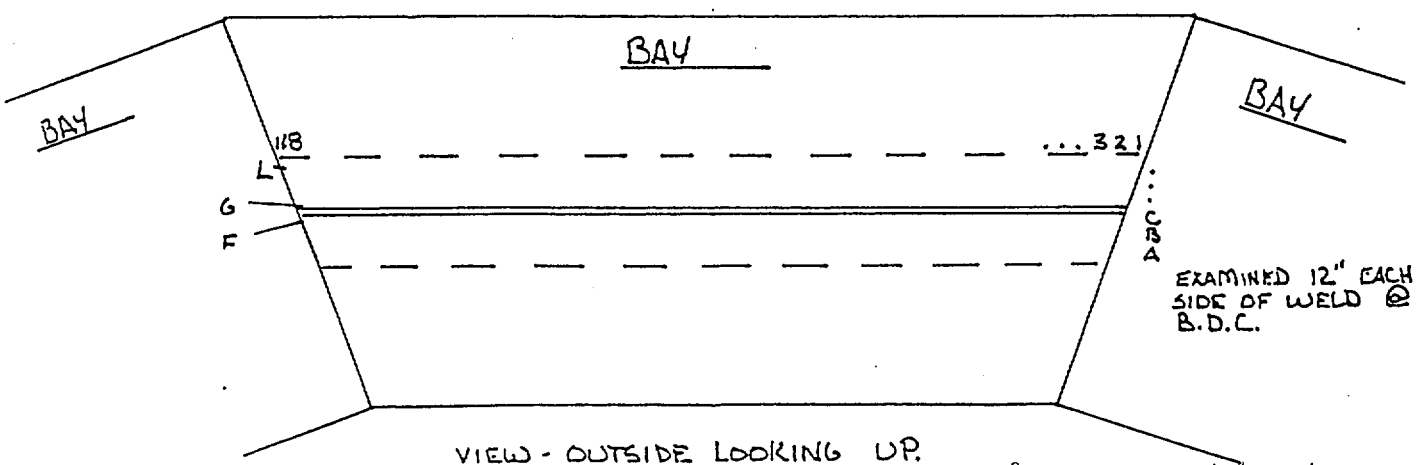
CAL. BLOCK MATERIAL: CS EC 1-1 PRODUCT FORM: STEPWEDGE THICKNESSES: .401", .501", .601", .701"

CALIBRATION TIMES: INITIAL: 0934 CHECK: 1113 CHECK: 1226 CHECK: N/A FINAL: 1357

Thermo S/N 162579 Cal BLK 72° Comp 73°

SKETCH WITH RESULTS:

OBSTRUCTIONS DUE TO BAY CONFIGURATION.



VIEW - OUTSIDE LOOKING UP.

Evaluation Required: (YES) NO * exams after sand blast

EXAMINER Janet L Miles LEVEL II DATE 4/9/98

EXAM AGENCY (Optional) N/A DATE N/A

ISI COORDINATOR (Optional) [signature] DATE 4.10.98

COGNIZANT ENGINEER [signature] DATE 5/8/98

QA (Optional) N/A DATE N/A

ANII (Optional) N/A DATE N/A

TORUS BAY 16 AFTER BLASTING

BAY16												
	A	B	C	D	E	F	G	H	I	J	K	L
1	0	0	0	0	0	0	0.602	0.601	0.603	0.605	0.604	0.599
2	0.6	0.599	0.586	0.588	0.589	0.597	0.591	0.594	0.601	0.605	0.61	0.607
3	0.598	0.6	0.6	0.585	0.591	0.591	0.606	0.613	0.611	0.605	0.609	0.611
4	0.6	0.6	0.601	0.587	0.587	0.592	0.603	0.603	0.607	0.602	0.606	0.607
5	0.6	0.601	0.586	0.585	0.587	0.589	0.608	0.606	0.613	0.606	0.612	0.614
6	0.602	0.603	0.601	0.599	0.581	0.589	0.604	0.605	0.607	0.609	0.612	0.612
7	0.604	0.604	0.602	0.592	0.598	0.6	0.602	0.602	0.6	0.607	0.612	0.61
8	0.604	0.606	0.605	0.604	0.6	0.603	0.609	0.608	0.601	0.607	0.61	0.61
9	0.604	0.605	0.6	0.604	0.605	0.591	0.603	0.612	0.584	0.609	0.61	0.612
10	0.605	0.605	0.598	0.607	0.607	0.597	0.605	0.596	0.606	0.592	0.611	0.611
11	0.606	0.606	0.599	0.602	0.606	0.599	0.601	0.598	0.605	0.603	0.605	0.611
12	0.609	0.607	0.608	0.605	0.603	0.597	0.599	0.6	0.606	0.602	0.607	0.608
13	0.608	0.61	0.609	0.608	0.611	0.6	0.604	0.607	0.609	0.604	0.61	0.61
14	0.611	0.611	0.597	0.606	0.611	0.6	0.6	0.605	0.605	0.608	0.609	0.608
15	0.61	0.61	0.611	0.604	0.612	0.605	0.598	0.61	0.608	0.609	0.61	0.61
16	0.61	0.611	0.609	0.607	0.612	0.604	0.609	0.61	0.61	0.608	0.61	0.61
17	0.611	0.612	0.607	0.604	0.612	0.606	0.609	0.609	0.607	0.605	0.607	0.609
18	0.611	0.612	0.611	0.611	0.607	0.607	0.611	0.611	0.609	0.607	0.61	0.611
19	0.613	0.613	0.613	0.612	0.612	0.609	0.606	0.609	0.609	0.609	0.608	0.609
20	0.603	0.613	0.614	0.612	0.609	0.601	0.605	0.606	0.61	0.61	0.607	0.608
21	0.613	0.614	0.612	0.614	0.609	0.603	0.591	0.601	0.609	0.607	0.608	0.608
22	0.613	0.615	0.614	0.612	0.613	0.599	0.588	0.605	0.607	0.606	0.607	0.606
23	0.613	0.615	0.613	0.613	0.612	0.591	0.588	0.601	0.607	0.607	0.606	0.607
24	0.614	0.614	0.613	0.612	0.61	0.592	0.603	0.603	0.603	0.605	0.605	0.603
25	0.614	0.614	0.612	0.612	0.605	0.608	0.596	0.603	0.604	0.604	0.603	0.602
26	0.614	0.615	0.614	0.612	0.604	0.595	0.597	0.596	0.604	0.603	0.602	0.581
27	0.613	0.613	0.614	0.614	0.604	0.599	0.589	0.59	0.595	0.591	0.595	0.576
28	0.613	0.615	0.616	0.613	0.603	0.6	0.583	0.593	0.596	0.591	0.595	0.574
29	0.614	0.614	0.615	0.611	0.603	0.599	0.59	0.589	0.598	0.597	0.596	0.583
30	0.614	0.615	0.614	0.613	0.605	0.598	0.59	0.589	0.601	0.599	0.601	0.598
31	0.615	0.616	0.613	0.606	0.608	0.596	0.601	0.603	0.594	0.6	0.602	0.6
32	0.616	0.615	0.616	0.611	0.613	0.608	0.604	0.604	0.603	0.602	0.604	0.603
33	0.616	0.615	0.616	0.615	0.603	0.601	0.601	0.607	0.604	0.605	0.606	0.604
34	0.618	0.615	0.613	0.615	0.603	0.601	0.594	0.605	0.608	0.606	0.608	0.607
35	0.616	0.617	0.616	0.611	0.608	0.598	0.607	0.609	0.608	0.608	0.607	0.609
36	0.616	0.615	0.615	0.604	0.605	0.61	0.598	0.606	0.608	0.609	0.609	0.608
37	0.613	0.614	0.616	0.614	0.611	0.602	0.6	0.608	0.608	0.608	0.607	0.607
38	0.614	0.612	0.613	0.612	0.611	0.597	0.604	0.61	0.612	0.612	0.611	0.612
39	0.615	0.614	0.613	0.611	0.603	0.594	0.606	0.605	0.612	0.611	0.612	0.612
40	0.614	0.613	0.613	0.612	0.605	0.606	0.6	0.603	0.603	0.614	0.612	0.613
41	0.612	0.613	0.609	0.608	0.607	0.602	0.607	0.613	0.614	0.614	0.614	0.615
42	0.611	0.613	0.612	0.61	0.609	0.609	0.614	0.615	0.617	0.616	0.615	0.616
43	0.612	0.613	0.612	0.615	0.611	0.604	0.608	0.615	0.617	0.616	0.617	0.615
44	0.613	0.613	0.614	0.612	0.607	0.595	0.609	0.614	0.614	0.616	0.616	0.615
45	0.612	0.614	0.614	0.613	0.606	0.581	0.611	0.616	0.617	0.618	0.616	0.615
46	0.611	0.612	0.612	0.611	0.605	0.59	0.611	0.619	0.618	0.62	0.619	0.618
47	0.612	0.612	0.613	0.609	0.6	0.596	0.609	0.62	0.616	0.617	0.619	0.619
48	0.61	0.609	0.612	0.607	0.604	0.596	0.61	0.613	0.613	0.617	0.618	0.619
49	0.609	0.61	0.605	0.604	0.603	0.603	0.607	0.613	0.619	0.618	0.619	0.619

TORUS BAY 16 AFTER BLASTING

1	A	B	C	D	E	F	G	H	I	J	K	L
50	0.61	0.61	0.601	0.601	0.602	0.6	0.615	0.619	0.619	0.62	0.619	0.617
51	0.608	0.607	0.605	0.605	0.601	0.595	0.609	0.613	0.619	0.619	0.618	0.617
52	0.608	0.609	0.597	0.594	0.601	0.594	0.615	0.615	0.608	0.608	0.617	0.619
53	0.607	0.601	0.589	0.595	0.599	0.597	0.616	0.613	0.594	0.609	0.619	0.619
54	0.605	0.604	0.603	0.598	0.588	0.588	0.616	0.621	0.622	0.62	0.62	0.62
55	0.604	0.604	0.603	0.599	0.601	0.594	0.618	0.621	0.622	0.62	0.621	0.622
56	0.604	0.603	0.592	0.595	0.595	0.614	0.619	0.621	0.621	0.622	0.619	0.619
57	0.602	0.6	0.596	0.594	0.594	0.611	0.609	0.621	0.619	0.62	0.619	0.618
58	0.59	0.595	0.593	0.596	0.596	0.596	0.611	0.619	0.621	0.62	0.621	0.62
59	0.593	0.591	0.576	0.587	0.595	0.593	0.612	0.621	0.621	0.62	0.621	0.62
60	0.594	0.585	0.585	0.571	0.584	0.586	0.61	0.613	0.623	0.618	0.62	0.62
61	0.599	0.598	0.588	0.588	0.598	0.603	0.617	0.619	0.621	0.619	0.619	0.62
62	0.602	0.601	0.602	0.588	0.6	0.604	0.613	0.622	0.62	0.62	0.619	0.62
63	0.601	0.601	0.603	0.604	0.596	0.6	0.619	0.62	0.62	0.621	0.621	0.618
64	0.602	0.601	0.59	0.598	0.593	0.589	0.614	0.618	0.62	0.618	0.623	0.621
65	0.599	0.594	0.6	0.604	0.606	0.605	0.612	0.62	0.62	0.618	0.619	0.618
66	0.604	0.601	0.603	0.602	0.606	0.6	0.617	0.623	0.618	0.618	0.618	0.619
67	0.602	0.604	0.602	0.605	0.605	0.606	0.607	0.619	0.619	0.618	0.617	0.617
68	0.602	0.602	0.603	0.585	0.607	0.601	0.608	0.62	0.619	0.617	0.618	0.618
69	0.601	0.598	0.601	0.604	0.606	0.603	0.61	0.617	0.612	0.618	0.618	0.616
70	0.595	0.591	0.588	0.591	0.599	0.599	0.607	0.603	0.604	0.607	0.611	0.616
71	0.589	0.594	0.582	0.582	0.597	0.591	0.603	0.607	0.582	0.604	0.608	0.609
72	0.595	0.598	0.597	0.598	0.588	0.597	0.613	0.609	0.607	0.601	0.607	0.609
73	0.606	0.602	0.607	0.603	0.602	0.601	0.604	0.612	0.611	0.607	0.609	0.606
74	0.612	0.601	0.598	0.616	0.602	0.597	0.605	0.606	0.663	0.608	0.606	0.606
75	0.605	0.607	0.606	0.599	0.601	0.6	0.608	0.631	0.627	0.604	0.622	0.606
76	0.619	0.607	0.601	0.6	0.601	0.596	0.307	0.606	0.606	0.607	0.605	0.608
77	0.607	0.597	0.599	0.601	0.602	0.589	0.596	0.632	0.59	0.639	0.606	0.605
78	0.599	0.598	0.601	0.6	0.596	0.598	0.605	0.598	0.602	0.607	0.695	0.612
79	0.599	0.601	0.6	0.606	0.597	0.599	0.594	0.596	0.606	0.621	0.618	0.604
80	0.608	0.596	0.603	0.598	0.596	0.607	0.598	0.614	0.606	0.614	0.569	0.597
81	0.6	0.609	0.615	0.6	0.628	0.608	0.594	0.617	0.601	0.611	0.652	0.586
82	0.603	0.604	0.618	0.602	0.604	0.62	0.6	0.627	0.598	0.597	0.599	0.6
83	0.599	0.597	0.605	0.603	0.59	0.599	0.6	0.597	0.6	0.596	0.596	0.598
84	0.599	0.599	0.6	0.608	0.584	0.598	0.607	0.596	0.606	0.604	0.595	0.602
85	0.601	0.606	0.604	0.601	0.601	0.612	0.622	0.596	0.594	0.593	0.595	0.596
86	0.605	0.601	0.602	0.602	0.604	0.604	0.595	0.592	0.594	0.592	0.592	0.593
87	0.616	0.601	0.6	0.602	0.622	0.612	0.585	0.587	0.597	0.596	0.593	0.594
88	0.6	0.599	0.613	0.601	0.591	0.6	0.584	0.596	0.593	0.59	0.589	0.587
89	0.599	0.601	0.602	0.606	0.6	0.597	0.58	0.578	0.594	0.591	0.589	0.587
90	0.603	0.612	0.617	0.613	0.605	0.596	0.606	0.591	0.592	0.589	0.592	0.584
91	0.593	0.615	0.608	0.604	0.61	0.604	0.586	0.579	0.58	0.572	0.586	0.582
92	0.601	0.601	0.602	0.606	0.608	0.597	0.577	0.584	0.578	0.577	0.578	0.575
93	0.601	0.603	0.606	0.599	0.605	0.608	0.576	0.577	0.58	0.58	0.581	0.581
94	0.597	0.598	0.602	0.601	0.603	0.606	0.573	0.573	0.577	0.577	0.578	0.579
95	0.598	0.597	0.6	0.603	0.597	0.588	0.569	0.573	0.579	0.577	0.579	0.581
96	0.6	0.63	0.594	0.6	0.601	0.584	0.582	0.578	0.577	0.579	0.581	0.577
97	0.6	0.599	0.599	0.601	0.601	0.597	0.593	0.575	0.574	0.574	0.582	0.583
98	0.594	0.594	0.585	0.6	0.6	0.592	0.577	0.579	0.582	0.578	0.579	0.578
99	0.595	0.594	0.595	0.599	0.588	0.588	0.578	0.579	0.579	0.577	0.58	0.582

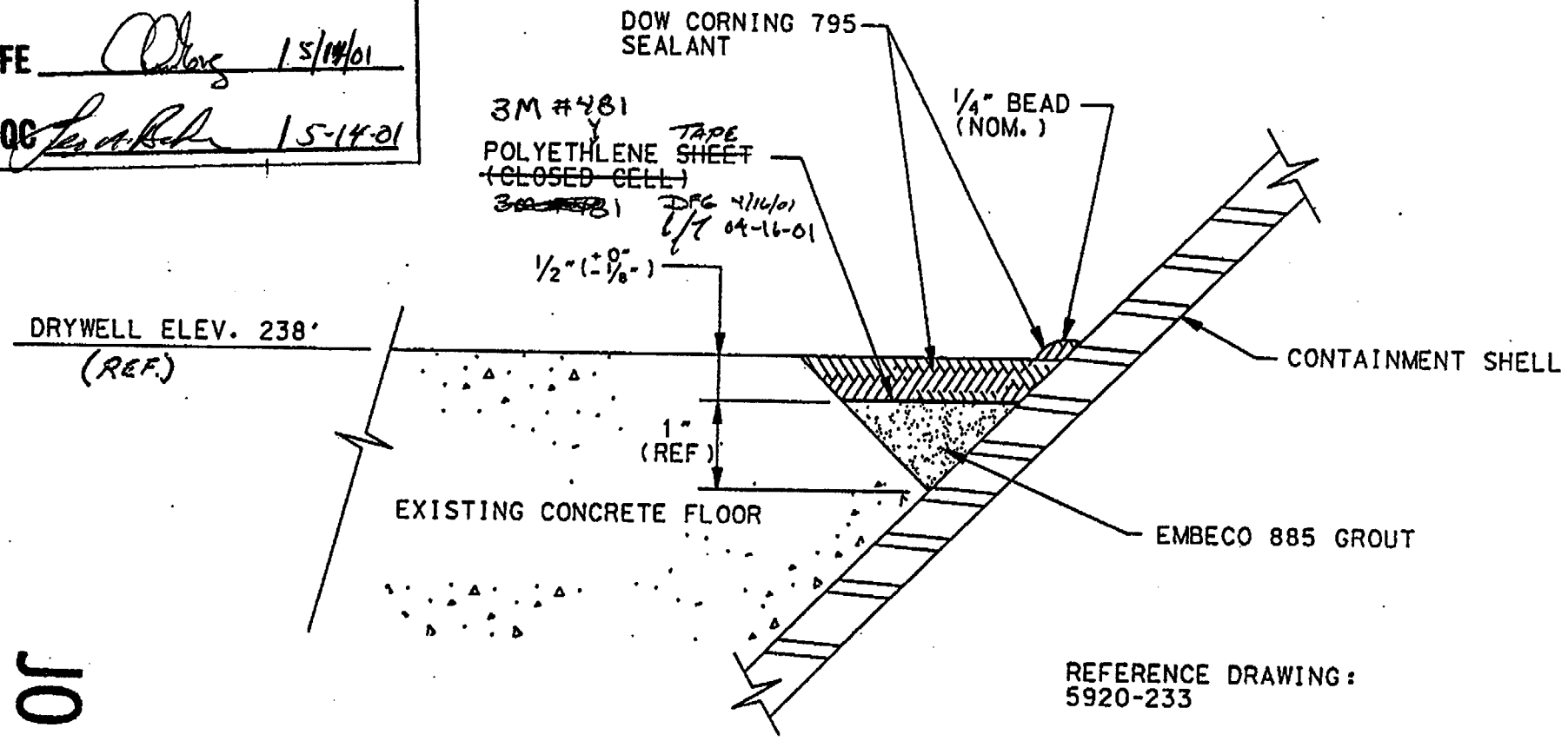
TORUS BAY 16 AFTER BLASTING

1	A	B	C	D	E	F	G	H	I	J	K	L
100	0.593	0.595	0.587	0.588	0.597	0.603	0.578	0.577	0.581	0.579	0.581	0.577
101	0.599	0.592	0.592	0.589	0.6	0.597	0.581	0.576	0.57	0.571	0.582	0.581
102	0.595	0.596	0.595	0.597	0.594	0.595	0.577	0.581	0.579	0.582	0.579	0.579
103	0.594	0.595	0.598	0.595	0.595	0.587	0.559	0.579	0.576	0.58	0.585	0.586
104	0.6	0.596	0.594	0.603	0.603	0.601	0.574	0.578	0.584	0.584	0.581	0.583
105	0.592	0.597	0.601	0.597	0.597	0.595	0.581	0.577	0.584	0.583	0.581	0.582
106	0.598	0.596	0.594	0.598	0.599	0.592	0.571	0.579	0.578	0.571	0.582	0.576
107	0.595	0.598	0.598	0.598	0.587	0.599	0.574	0.579	0.581	0.585	0.578	0.581
108	0.596	0.595	0.595	0.595	0.6	0.595	0.587	0.581	0.584	0.586	0.584	0.582
109	0.591	0.593	0.597	0.602	0.596	0.602	0.582	0.582	0.588	0.581	0.584	0.583
110	0.604	0.641	0.592	0.588	0.597	0.594	0.571	0.584	0.581	0.584	0.588	0.586
111	0.594	0.596	0.593	0.588	0.597	0.587	0.58	0.58	0.579	0.58	0.582	0.584
112	0.595	0.595	0.591	0.594	0.59	0.586	0.576	0.584	0.589	0.581	0.582	0.587
113	0.593	0.592	0.603	0.594	0.597	0.595	0.582	0.59	0.58	0.584	0.588	0.584
114	0.597	0.597	0.586	0.585	0.595	0.589	0.6	0.583	0.584	0.579	0.591	0.606
115	0.6	0.591	0.592	0.597	0.593	0.591	0.574	0.583	0.583	0.577	0.584	0.582
116	0.583	0.587	0.583	0.586	0.575	0.582	0.582	0.581	0.584	0.585	0.583	0.579
117	0	0	0.592	0.584	0.581	0.585	0.579	0.614	0.587	0.59	0.588	0.584
118	0	0	0	0	0	0	0	0.595	0.582	0.578	0.581	0.586

AS-BUILT VERIFIED

NPSFE [signature] 5/14/01

NPSQC [signature] 5-14-01



DRYWELL SEAL DETAIL

THIS CHANGE FOR MM# 00-010 ONLY

INDICATES CHANGE

DF Bain 7/20/00

KFB 7/27/00

JO FILE

RECEIVED APR 25 2001

Duke Engineering & Services. A Duke Energy Company — Solomon Pond Park, 400 Donald Lynch Boulevard, Marlborough, MA	DRAWN BY	TITLE: DRYWELL SEAL DETAIL	
	CHECKED BY		
FOR: VERMONT YANKEE NUCLEAR POWER STATION, VERNON, VERMONT	APPROVED BY	JOB NO.	5920-12789

o:\vermont yankee\vy minor mod\2000 modifications\5920-4...

Vermont Yankee
Visual Examination Report Form
VT-1, Containment Surfaces (IWE)

Data Sheet No: 8045-01-010

Work Order No.: 00-5037

Procedure No/Rev.: NE 8045 REV. 1

Page 1 of 1 Date: 5-1-01

Component

Component ID: DRYWELL INTERIOR MOISTURE BARRIER System: PRIMARY CONTAINMENT

Drawing No/Rev.: 6202-2 REV. 0 LOCATION: ELEV. 238' VENT LINE AREAS X-5B, C, D, E

Visual Aids			Illumination Level Check		
■ Mirror	■ Illumination Card/No. VY8			Time	Date
■ Light Source (Describe)	■ Other: DEARMAN UNDERCUT GUAGE		Initial PRE 213 FC	8:05 AM	5-1-01
Method	**Photo**	**Sketch**	Intermediate	N/A	N/A
■ Direct	■ None	■ None	Intermediate	N/A	N/A
☐ Remote	☐ Attached	☐ Attached	Final POST 178 FC	9:15 AM	5-1-01

Remote Examination Conditions/Equipment Remarks Light Meter Used No. 812153 Due 4-13-02

	Acceptable	Recordable	N/A	Remarks/Observations
Cracks/Linears			J.E. 5-1-01	NOTE: AUGMENTED UT-1 INSP.
Physical Damage		J.E. 5-1-01		performed to ASCERTAIN NO
Corrosion		J.E. 5-1-01		Further degredation to
Erosion			J.E. 5-1-01	base metal has occured on
Gouges			J.E. 5-1-01	AREAS documented on Report
Wear			J.E. 5-1-01	YA-IWE-UT-188. Conditions
Arc Strikes			J.E. 5-1-01	ARE the SAME. See report
Other (Explain)			J.E. 5-1-01	YA-IWE-UT-188. No Further degredation measured.

Examiner: Ted El-Hajj Level: II Date: 5-1-01

Examiner: N/A Level: N/A Date: N/A

Reviewer: [signature] Date: 5/2/01

Reviewer: N/A Date: N/A

ANII: [signature] Date: 5-2-01

Evaluation Required?

☐ Yes ☒ No

Data Sheet No.: 8053-01-063
Procedure No/Rev. NE 8053 Rev 0/LPC #1
Page 1 of 2 Date: 5/8/01
Work Order Number: 00-005037-000

Thickness Calibration Data Sheet

Component * ISIE EXAM CATEGORY E-C GWO 5-10-01

Component ID: Drywell Seal Area * System: Drywell
Drawing Number/Rev.: 6202-2 Rev0 Plant Location: Drywell elev. 238
Material: C/S Product Form: Wrought Nominal Thickness: 1.000/2.500

Instrument

Instrument Make: Panametrics Instrument Model: 26 DL Plus Instrument S/N: 93129307

Instrument Display: CRT ( ) Digital (✓) Horizontal Linearity Performed?: Yes ( ) No (✓)

Calibration Block

Serial Number: E/C 1-1, E/C 1-2 Calibration Block Material: C/S Product Form: Wrought
Block Temperature: 75 °F Thicknesses: .800 - 3.001
M&TE Used?: Yes ( ) No (✓) M&TE Description / S/N: N/A

Calibration Times

Initial Calibration: 0800 Check: 1300 Check: N/A Check: N/A Check: N/A Final: 1630

Sketch and Examination Results: See page two

* REPAIR AREA PRIOR TO PAINT APPLICATION
[illegible] 5-10-01

** These examinations are not for a repair area. These UT examinations were requested by the Responsible Engineer as the initial base line UT thickness readings for the defined augmented examinations in the drywell Seal Area. The drywell to steel moisure barrier was in the process of being replaced and as a result, the lower 6" of steel containment to floor had the paint removed to clean metal in preparation for the seal replacement. The low points in the one-foot by one-foot grids typically occurred in the lower 6" area. All low point thickness identified are bounded by evaluation VYM 99/139 and are acceptable without further evaluations. RC 5/11/01

Component Temperature: 75 F°

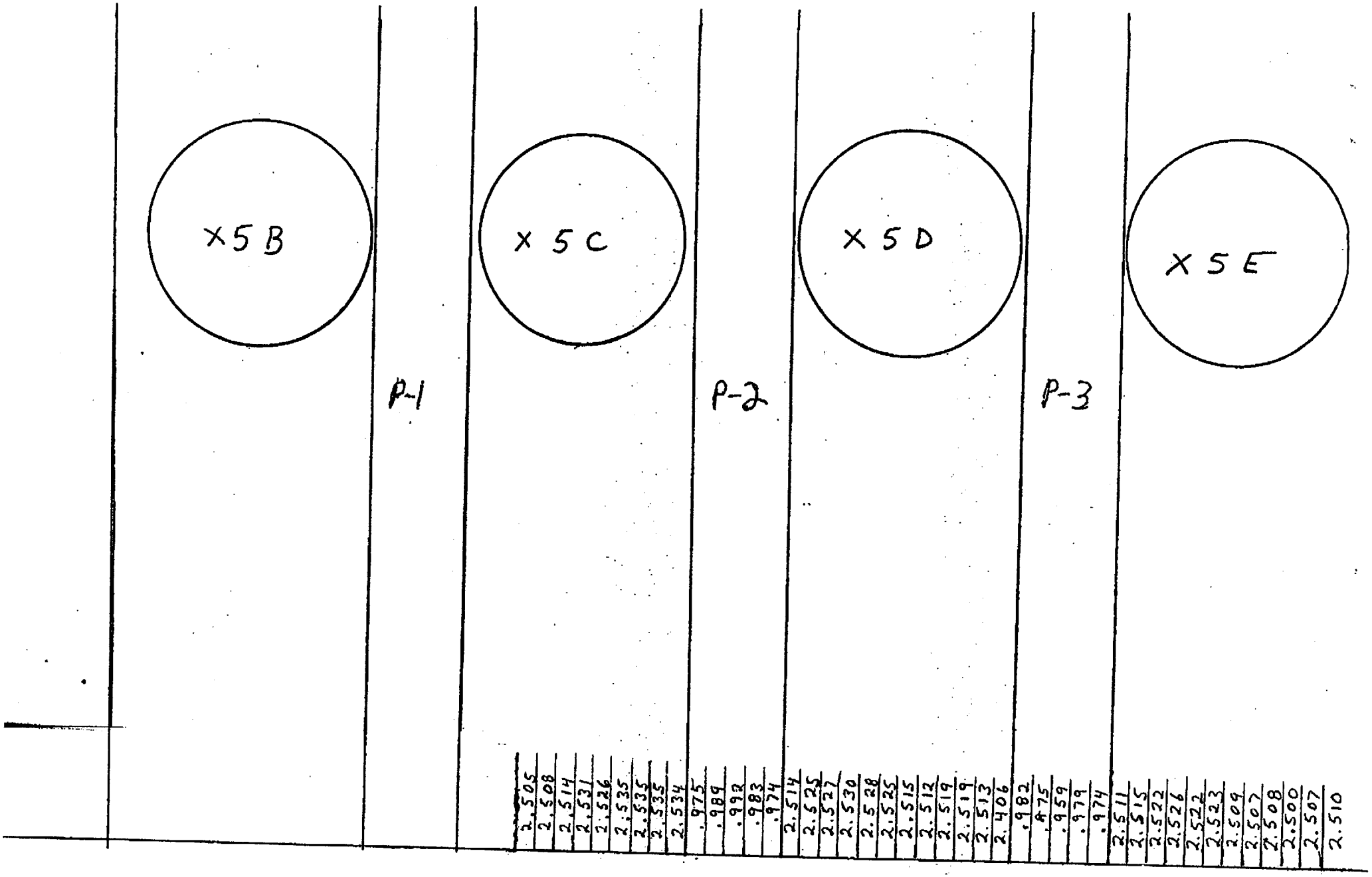
Examiner: Robert B. Birkbeck Robert B. Birkbeck Level: II L Date: 5/8/01
Examiner: Jason Polusensky JASON POLUSENSKY Level: II Date: 5/8/01
Reviewer: [illegible] Date: 5-10-01
* Cog. Engineer: [illegible] Responsible Engineer. Date: 5/11/01
ANII: [illegible] Date: 5-11-01

Evaluation Required:
xxx
Yes (✓) No ( )

Form Number:
VYNEF8053.01
Page 1 of 1
NE 8053 Original
LPC # 1

Experience Hours Credit: _____

xxx See explanation provided Above. Accept as is. [illegible] Responsible Engineer 5/11/01



43 12"x12" grids

FLOOR

LV II L 5/8/01

II 5/8/01

5-11-01

REVIEW: 5-10-01

DATA SHEET NO.
8053-01-063

Data Sheet No.: 8053-01-064
Procedure No/Rev. NE 8053 REV 0/LPC #1
Page 1 of 2 Date: 5-9-01
Work Order Number: 00-005037-000

Thickness Calibration Data Sheet

Component * IWE EXAM CATEGORY E-C MAM 5.10.01

Component ID: DRY WELL SEAL AREA * System: DRYWELL
Drawing Number/Rev.: 6202-2 REV 0 Plant Location: DRY WELL 232' ELV.
Material: CARBON STEEL Product Form: WROUGHT Nominal Thickness: 1.0" & 2.5"

Instrument

Instrument Make: PANAMETRICS Instrument Model: 26 DL PLUS Instrument S/N: 9312 9307

Instrument Display: CRT ( ) Digital (✓) Horizontal Linearity Performed?: Yes ( ) No (✓)

Calibration Block

Serial Number: E/C 1-1 E/C 1-2 Calibration Block Material: CARBON STEEL Product Form: WROUGHT
Block Temperature: 75 °F Thicknesses: 0.800", 0.899", 1.500", 2.000", 2.501", 3.001
M&TE Used?: Yes ( ) No (✓) M&TE Description / S/N:

Calibration Times

Initial Calibration: 0800 Check: N/A Check: N/A Check: N/A Check: N/A Final: 1050

Sketch and Examination Results: SEE PAGE TWO.

* REPAIR AREA PRIOR TO PAINT APPLICATION
5.10.01

** These examinations are not for a repair area. These UT examinations were requested by the responsible engineer as the initial base line UT thickness readings for the defined augmented examinations in the drywell seal area. The drywell concrete to steel moisture barrier was in the process of being replaced and as a result, the lower 6" of steel containment to floor had the paint removed to clean metal in preparation for the seal replacement. The low points in the one-foot by one-foot grids typically occurred in the lower 6" areas. All low point thickness' identified are bounded by evaluation VYM 99/139 and are acceptable without further evaluations.
RC 10/n/01

Component Temperature: 75 F°

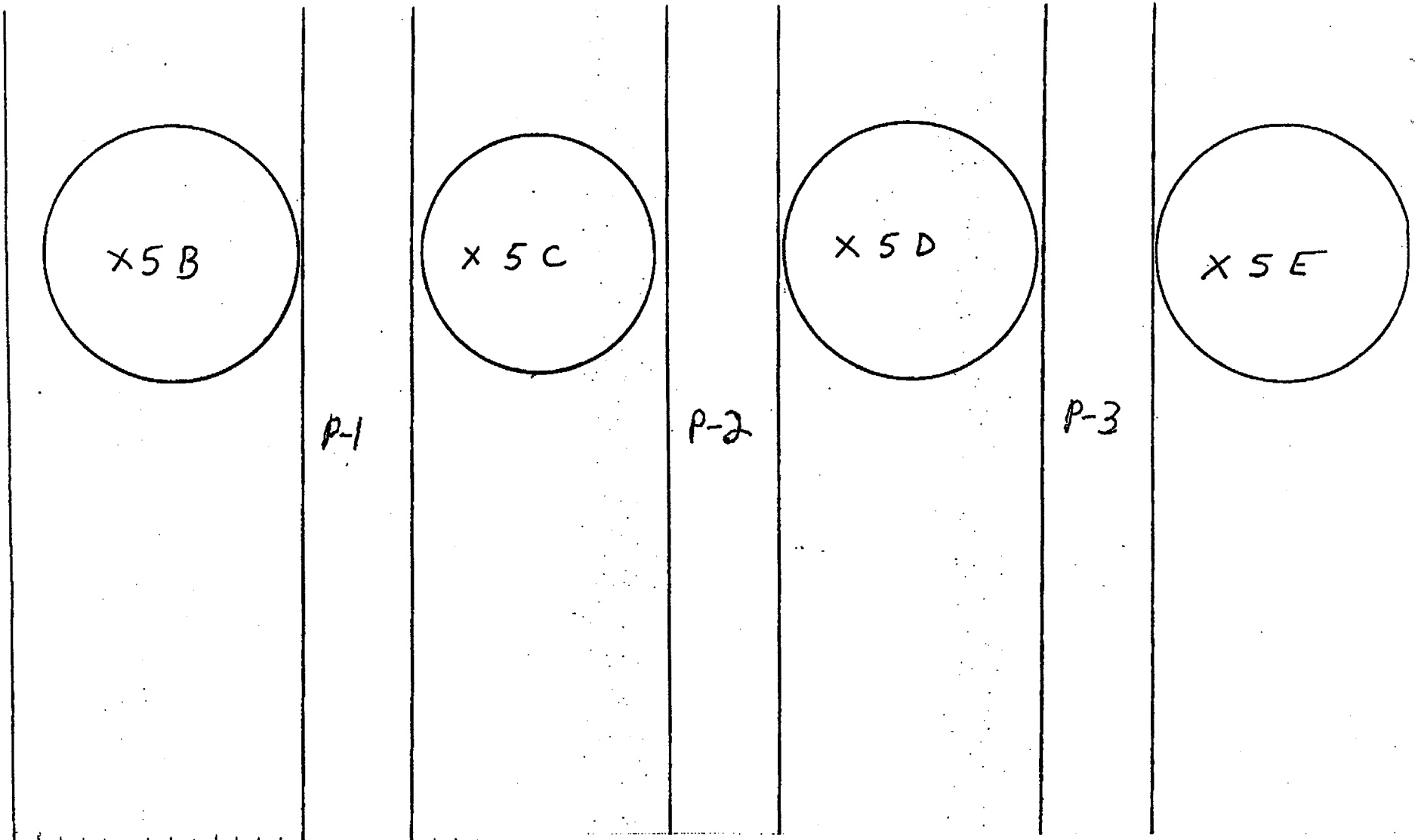
Examiner: Mark E Malia MARK E MALIA Level: II Date: 5-9-01
Examiner: Robert B. Bickbeck Robert B. Bickbeck Level: IIL Date: 5/9/01
Reviewer: Date: 5.10.01
** Cog. Engineer: Responsible Engineer Date: 5/11/01
ANII: Date: 5-11-01

Evaluation Required: ***
Yes (✓) No ( )

Form Number:
VYNEF8053.01
Page 1 of 1
NE 8053 Original
LPC # 1

Experience Hours Credit: _____

*** See explanation provided above. Accept as is. Responsible Engineer 5.11.1



2.525	1.001	2.498
2.531	1.001	2.491
2.517	0.997	2.490
2.527	0.976	
2.529	0.999	
2.528		
2.530		
2.537		
2.553		
2.551		
2.549		
2.549		
0.996		

DATA SHEET NO. 8053-01-064
PAGE 2 OF 2

Mark E Malia LV II 5/9/01

Todd B Bibbb LV III 5/9/01

REVIEW: [signature] 5.10.01

Vermont Yankee

Visual Examination Report Form

VT-1, Containment Surfaces (IWE)

Data Sheet No: 8045-01-019

Work Order No.: 00-5037

Procedure No/Rev.: NE 8045 REV. 1

Page 1 of 6 Date: 5-9-01

Component

Component ID: PRIMARY CONTAINMENT

System: PRIMARY CONTAINMENT SEAL INTERFACE AREA ELEV. 238'

Drawing No/Rev.: 6202-2

Visual Aids			Illumination Level Check		
☐ Mirror	■ Illumination Card/No. VY 8			Time	Date
■ Light Source (Describe) FLASHLIGHT	■ Other: V-WAC GUAGE DEARMAN GUAGE		Initial 243 FC	9:10 AM	5-9-01
Method	Photo	Sketch	Intermediate 198 FC	11:00 AM	5-9-01
■ Direct	☐ None	☐ None	Intermediate 177 FC	1:30 PM	5-9-01
☐ Remote	■ Attached	■ Attached	Final 96 FC	4:00 PM	5-9-01

Remote Examination Conditions/Equipment Remarks

LIGHT METER NO.: 812153
DUE: 4-13-02

	Acceptable	Recordable	N/A	Remarks/Observations
Cracks/Linears	J.E. 5-9-01			SEE ATTACHED PAGES 2 thru
Physical Damage	J.E. 5-9-01			6.
Corrosion			J.E. 5-9-01	EXAM CATAGORY E-C.
Erosion	J.E. 5-9-01			AUGMENTED EXAM.
Gouges	J.E. 5-9-01			EXAMS PERFORMED AFTER
Wear			J.E. 5-9-01	NEEDLE GUNNING AND
Arc Strikes			J.E. 5-9-01	SAND BLASTING. 0° thru 360°
Other (Explain)			J.E. 5-9-01	Jed El-Hajj II 5-9-01

Examiner: Jed El-Hajj Level: II Date: 5-9-01

Examiner: N/A Level: N/A Date: N/A

Reviewer: Ralph Connell Responsible Engineer Date: 5/11/01

Reviewer: N/A Date: N/A

ANII: [illegible] Date: 5-11-01

Evaluation Required?

☒ Yes ☐ No

See attached Evaluation LC 10/11/01

Vermont Yankee

Visual Examination

Supplemental Report Form

Reference Data Sheet No: 8045-01-019

Page 2 of 6 Date: 5-9-01

Component

Component ID: PRIMARY CONTAINMENT

System: SEAL INTERFACE AREA ELEV. 238' PRIMARY CONTAINMENT

SCOPE OF INSPECTION: SEAL INTERFACE AREA.
THE FOLLOWING AREAS OF PITTING WAS NOTED DURING INSPECTION.
THE PITTING NOTED IS LOCATED IN THE GROUT AREA.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5A EXHIBITS 60% OF GROUT AREA PITTED, WITH 40% OF PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5A AND X-5B EXHIBITS 70% OF GROUT AREA PITTED, WITH 80% OF PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5B EXHIBITS 80% OF GROUT AREA PITTED, WITH 60% OF PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5B AND X-5C EXHIBITS 80% OF GROUT AREA PITTED, WITH 80% OF PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5C EXHIBITS 60% OF GROUT AREA PITTED, WITH 70% OF PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5C AND X-5D EXHIBITS 70% OF GROUT AREA PITTED, WITH 70% OF PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5D EXHIBITS 20% OF GROUT AREA PITTED, WITH 80% OF PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5D AND X-5E EXHIBITS 50% OF GROUT AREA PITTED, WITH 80% OF PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5E EXHIBITS 80% OF GROUT AREA PITTED, WITH 70% OF PITTS TOUCHING.

Examiner: Ted El-Hajj. Level: II Date: 5-9-01

Examiner: N/A Level: N/A Date: N/A

Reviewer: [signature] Date: 5/11/01

Reviewer: N/A Date: N/A

ANII: [signature] Date: 5-11-01

Vermont Yankee
Visual Examination
Supplemental Report Form

Reference Data Sheet No: 8045-01-019
Page 3 of 6 Date: 5-9-01

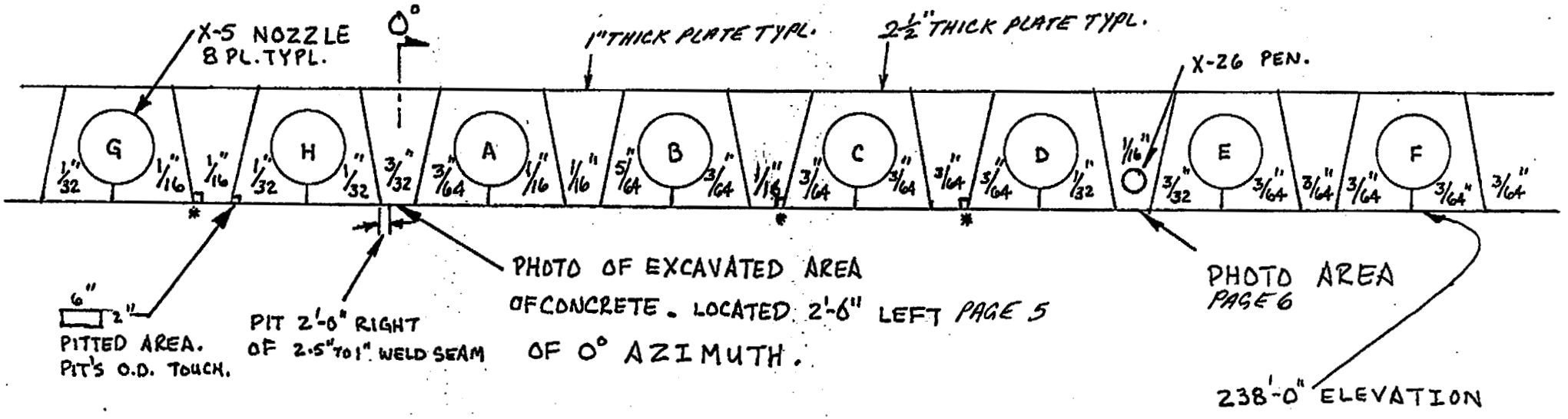
Component ID: PRIMARY CONTAINMENT
Component: SEAL INTERFACE AREA ELEV. 238'
System: PRIMARY CONTAINMENT

1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5E AND X-5F EXHIBITS 80% of GROUT AREA PITTED, WITH 80% of PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5F EXHIBITS 50% of GROUT AREA PITTED, WITH 40% of PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5F AND X-5G EXHIBITS 40% of GROUT AREA PITTED, WITH 20% of PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5G EXHIBITS 70% of GROUT AREA PITTED, WITH 80% of PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5G AND X-5H EXHIBITS 60% of GROUT AREA PITTED, WITH 40% of PITTS TOUCHING.
2½" THICK PRIMARY CONTAINMENT LINER PLATE BELOW X-5H EXHIBITS 20% of GROUT AREA PITTED, WITH 50% of PITTS TOUCHING.
1" THICK PRIMARY CONTAINMENT LINER PLATE BETWEEN X-5H AND X-5A EXHIBITS 70% of GROUT AREA PITTED, WITH 50% of PITTS TOUCHING.
THE ABOVE FINDINGS WERE NOTED AFTER NEEDLE GUNNING AND SAND BLASTING. PITTS RANGED IN SIZE FROM PIN HEADS THROUGH SEVERAL FEET OF SURFACE WASTAGE.
NONE of THE ABOVE VIOLATED 10% MATERIAL THICKNESS. Page 4 of Report, Documents Deepest Pitt Size.
SEE Page 5 of Report FOR AREA OF CONCRETE BROKEN BELOW GROUT AREA.
SEE Page 6 of Report FOR AREA of PRIMARY CONTAINMENT WITH CORROSION WASTAGE BELOW FLOOR SURFACE.
AREA Referred to in this Report as "GROUT AREA" is the AREA At the JOINT SEAL Interface.

Examiner: Ted El-Hajj. Level: II Date: 5-9-01
Examiner: N/A Level: N/A Date: N/A
Reviewer: [signature] Date: ~~10/11/01~~ 5/11/01
Reviewer: N/A Date: N/A
ANII: [signature] Date: 5-11-01

REFERENCE DATA SHEET NO. 8045-01-019
PAGE 4 OF 6 DATE 5-9-01

SCOPE OF THIS INSPECTION: DOCUMENT THE DEEPEST PITT LOCATED IN THE SANDBLASTED AREA. 360°
PLEASE NOTE BELOW DIMENSIONS OF THE DEEPEST PITTS ON 2½" AND 1" THICK PLATES.
NONE OF THESE AREAS VIOLATE 10% OF PLATE WALL THICKNESS.
VERIFIED USING V-WAC AND DEARMAN UNDERCUT GUAGE.
NOTE: 3/32" DEEP PITT ON 1" PLATE BETWEEN X-5H AND X-5A IS NOT OVERLAPPED BY OTHER PITTS.
Jed El-Hajj. II 5-9-01



* PREVIOUS UT DATA AREAS

ELEV. VIEW FROM INSIDE

REFERENCE DATA SHEET NO. 8045-01-019
PAGE 5 OF 6 DATE 5-9-01

AREA LOCATED 2'6" LEFT OF 0°

NO PITTS IN THIS AREA EXCEEDED 10% OF WALL THICKNESS.

TOTAL AREA REVEALED LESS PITTING THE FUTHER DOWN FROM GROUT BELT.

Jed El-Hajj. 5-9-01 Level II

REFERENCE DATA SHEET NO. 8045-01-019
PAGE 6 OF 6 DATE 5-9-01

AREA LOCATED BELOW X-26 PENETRATION ON RIGHT

UNABLE TO USE V-WAC OR DEARMAN UNDERCUT GUAGE IN THIS AREA. USED 1/32" THICK PLASTIC SHIM, WHICH FILLED AREA, FLUSH. NOT BELOW MINIMUM WALL.

Ted El-Hajj. LEVEL II 5-9-01

[illegible] 5-11-01

EVALUATION OF DATA PROVIDED BY VT-1, CONTAINMENT SURFACES (IWE)
DATA SHEET No: 8045-01-019

During RFO 21 IWE examinations it was discovered that the Joint Seal at the concrete to steel interface on the 238' level of the containment had failed and there was evidence of corrosion in areas of the seal. As a result a portion of the circumference of the seal interface area was declared as augmented. The joint seal itself was also scheduled for replacement during RFO-22.

At the start of RFO-22 the examiners performed the required VT-1 examinations of the augmented area at the joint seal to determine if any changes had occurred during the last operating cycle. The results of that examination reveal no changes identified in the augmented area.

After the VT-1 examinations were complete the process began for the joint seal replacement. A band of paint was removed from the concrete floor up the steel containment approximately 6" wide for the full circumference. The recessed area for the joint seal was also cleaned in preparation for the new seal installation. At this point a VT-3 examinations was performed which identified a band of pitting that covered much of the 360-degree circumference. A more detailed VT-1 was ordered by the Responsible Engineer to detail this area prior to paint/seal installation.

This joint seal area was identified as an issue in the early 1990's. (ER-99-1594 deals with the issues from the 1990's resolution.). In 1993 the joint seal area was cleaned and painted so as to form a paint joint seal at the concrete to seal interface. The areas identified during the RFO-21 examinations were areas that were experiencing evidence of corrosion and paint loss in this painted joint area. Some of the paint was still intact and providing adequate protection for the steel it was covering.

The new areas of pitting in the area of the joint seal are as a result of the coating removal to white metal in this area. This area was not previously identified during RFO-21 because it was an old area of pitting that had been covered by the 1993 coating and had not experienced any further degradation. As a result of the coatings being completely removed from this joint area, this VT-1 examination was able to map this region without the impedance of any obstruction.

The areas of pitting are isolated to the general area of the joint seal interface between the concrete and the steel. The pitting subsides as it move up or down out of the joint seal area. This was evident when a portion of the steel surface was exposed as a result of the removal of a concrete chip. The under surface area exposed was approximately 9" wide and 3" deep in a crescent shape. The worst case pitting is isolated to a band in the joint seal area from approximately ¼" wide to approximately 1" wide and is described in the report as areas with general wastage and connected pitting. All corrosion identified within this report is bounded by evaluation VYM 99/139. Based on this evaluation all areas are well within the required design base metal thicknesses and are acceptable for continued operation as is.

Ralph Connell
IWE Responsible Engineer
May 11, 2001

Data Sheet No: 8047-01-079

Work Order No.: 00-005037-000

Procedure No/Rev.: NE8047 LPC No. 1

Page 1 of 1 Date: 5-14-01

Vermont Yankee
Visual Examination Report Form for VT-3 Moisture Barriers, Gaskets and Seals (IWE)

Component ID: PRIMARY CONTAINMENT SEAL INTERFACE AREA ELEV. 238' Component

Drawing No/Rev.: 6202-2

Visual Aids	Illumination Level Check			Photo/Sketch
☐ Magnifier ■ Light Source (Describe) FLASHLIGHT		Time	Date	■ None
☐ Mirror ■ Other: LIGHT METER NO. 812153 DUE 4-13-02	Initial 158 FC	7:40 AM	5-14-01	
	Intermediate	N/A	N/A	
	Intermediate	N/A	N/A	☐ Attached
■ Illumination Card/Number VY8	Final 135 FC	8:45 AM	5-14-01	

	Acceptable	Recordable	N/A	Remarks
Deformation	J.E. 5-14-01			Scope of Insp. Catagory
Cracking	J.E. 5-14-01			EA, and EO. New
Discoloration	J.E. 5-14-01			PAINT, NEW SEAL on
Wear	J.E. 5-14-01			Refurbished SEAL/
Erosion	J.E. 5-14-01			MOISTURE BARRIER
Corrosion	J.E. 5-14-01			AREA. J.E. 5-14-01
Tears	J.E. 5-14-01			
Gaps/Missing Sections	J.E. 5-14-01			
Pitting		①	J.E. 5-14-01	① Previously addressed
Gouges		①	J.E. 5-14-01	on Report No. 8045-01-
Dents		①	J.E. 5-14-01	019. J.E. 5-14-01
Other (Describe):			J.E. 5-14-01	

Examiner: Ted El-Hajj Level II Date 5-14-01

Examiner: N/A Level N/A Date N/A

Reviewer: [signature] Date 5/14/01

Reviewer: N/A Date N/A

ANII: [signature] Date 5-14-01

Evaluation Required? ☐ Yes ■ No

Data Sheet No: 8047-01-073 (01 / 9RBS-10-01)

Work Order No.: 00-005037-000

Procedure No/Rev.: NE 8047 Rev. 0

Page 1 of 1 Date: 5-9-01

Vermont Yankee
Visual Examination Report Form for VT-3 Containment Surfaces (IWE)

Component: SEAL INTERFACE AREA ELEV. 238'

Component ID: PRIMARY CONTAINMENT Drawing No/Rev.: 6202-2 R/0

Visual Aids		Illumination Level Check			Photo/Sketch
☐ Binoculars	■ Light Source (Describe) FLASHLIGHT		Time	Date	■ None
		Initial 179 FC	7:30 AM	5-9-01	
☐ Mirror	■ Other: LIGHT METER NO. 812153 DUE - 4-13-02	Intermediate	N/A	N/A	
		Intermediate	N/A	N/A	☐ Attached
■ Illumination Card/Number VY8		Final 143 FC	8:45 AM	5-9-01	

Coated Surface? ☐ Yes ■ No	Acceptable	Recordable	N/A	Remarks
Cracking	J.E. 5-9-01			SCOPE OF INSP.: SEAL
Flaking			J.E. 5-9-01	INTERFACE AREA. GROUT
Blistering			J.E. 5-9-01	HAS BEEN REMOVED AND
Peeling			J.E. 5-9-01	AREA SAND BLASTED to
Wear	J.E. 5-9-01			CLEAN METAL.
Discoloration			J.E. 5-9-01	PITTING EXISTS BELOW
Pitting		J.E. 5-9-01		AND WHERE GROUT
Corrosion	J.E. 5-9-01			PREVIOUSLY INTERFACED
Arc Strikes	J.E. 5-9-01			WITH PRIMARY CONTAIN-
Gouges	J.E. 5-9-01			MENT. PITTING depth is
Dents	J.E. 5-9-01			indeterminate. Request
Deformation	J.E. 5-9-01			Engineering Evaluation.
Other (Describe):			J.E. 5-9-01	

Examiner: Ted El-Hajj Level II Date 5-9-01

Examiner: N/A Level N/A Date N/A

** Reviewer: [signature] Date 5/11/01

Reviewer: N/A Date N/A

ANII: [signature] Date 5-11-01

Evaluation Required? ☐ Yes ☒ No

See below

** The information provided is not detailed enough. VT-1 exams of this Area have been requested and will document the areas of pitting for review.