TENNESSEE VALLEY AUTHORITY	EXAMINATION SUMMARY AND RESOLUTION SHEET	REPORT NUMBER: R. P0147

PROJECT: *WBN* UNIT: *2* CYCLE *00*				COMPONENT ID: *RCF-C2-2*	
EXAMINATION METHOD				SYSTEM: RCS	ISI DWG NO: *ISI-2068-W-01* Rev 0
MT ☐	PT ☐	UT ☑	VT ☐	CONFIGURATION:	CATEGORY
PROCEDURE: *N-UT-33*		REV 11	TC: N/A	*PUMP* TO *P*	*B-J*

EXAMINER:	EXAMINER:	EXAMINER:	EXAMINER:
Jason Nisson	N	N	N
	A	A	A
LEVEL:	LEVEL:	LEVEL:	LEVEL:

Total coverage calculated to be approximately 75 %

AN ULTRASONIC EXAMINATION WAS PERFORMED TO MEET THE REQUIREMENTS OF ASME SECTION XI PRESERVICE INSPECTION.

A 45° REFRACTED LONGITUDINAL WAVE WAS CALIBRATED AND USED FOR THIS EXAMINATION.

EXAMINATION WAS LIMITED ON ONE SIDE DUE TO THE PUMP GEOMETRY.

NO RECORDABLE INDICATION OBSERVED.

75 % EXAMINATION VOLUME COVERAGE ACHIEVED.

RESOLUTION BY:	REVIEWED BY:	ANII:
Jason Nisson		
LEVEL II DATE: 2-18-09	LEVEL: III DATE: 2-24-09	DATE: 3/5/09
		Page: 1 OF 5

ACCESS: FORMS DATABASE R-10/04/01

TENNESSEE VALLEY AUTHORITY	DIGITAL ULTRASONIC CALIBRATION DATA SHEET	REPORT NUMBER R.P0147

PROJECT WBN UNIT/CYCLE 2/00
PROCEDURE: N-UT-33 REV: 11 TC: N/A

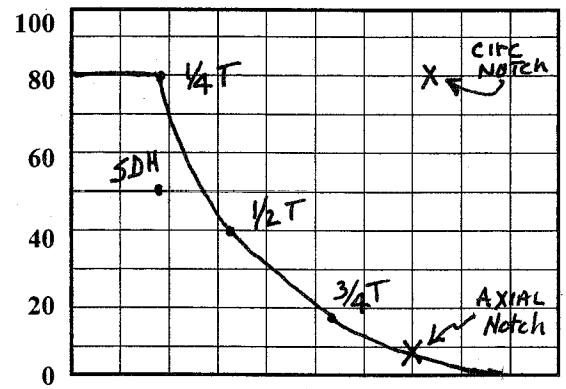
TRANSDUCER
MANUFAC SwRI MODEL: TVA-1
ELEMENTS: 2 SHAPE: Rectangle
S/N 2952 SIZE: .5X1.0 FREQ: 1.0 MHz
CONTOUR: N/A FOCUS: N/A
CABLE TYPE RG174 LENGTH: 6' # CNT: N/A
MODE: ☐ SHEAR ☐ LONG ☒ RL

CALIBRATION DATE: 02-18-09
CALIBRATION BLOCK NO. WB60 TEMP: 69.4 °F
SIMULATOR BLOCK: DSC Block
THERMOMETER S/N: 558271 DUE DATE: 06-24-09
COUPLANT: Ultragel II BATCH: 07225E

ANGLE VERIFICATION
BLOCK TYPE DSC Block S/N: A03671
NOMINAL ANGLE: 45RL ACTUAL ANGLE 45RL

INSTRUMENT
MANUFACTURER: KrautKramer DUE DATE: 06-23-09
MODEL NO.: USN60 S/N: E36304

DAC



DISPLAY WIDTH 6.0 inches

REFLECTOR SCAN DIRECT.	NTC	SDH	REFERENCE SENSITIVITY	MEMORY NUMBER
AXIAL	☒	☐	58.0 dB	45RL-CCSS
CIRC.	☒	☐	74.2 dB	45RL-CCSS

RANGE: 6.0 inches *FREQ: 1.0 MHz
PROBE DELA 13.2144 msec *RECTIFY: Fullwave
VELOCITY .2373 msec DUAL ☒ ON ☐ OFF
DISP DELAY: 0.000 *REJECT: 0 %
*ENERGY: High *DISP. START: IP
*DAMPING: 1K ohms DET: ☒ Peak ☐ Flank
*PRR/PRF: Autohigh TCG: ☐ ON ☒ OFF
ANGLE: 45RL deg
ZERO: N/A msec *PULSER: Dual

REF. REFLECTOR: DSC Block SDH GAIN: 50.1 dB
AMPLITUDE: 50 % METAL PATH: 1.06

CALIBRATION TIMES
INITIAL TIME: 0914 FINAL TIME: 1213

VERIFICATION TIMES	1) 0942	2) 1027	3) 1045	4) 1112	5) 1122	6) 1149	7) N/A	8) N/A	9) N/A

***PDI QUALIFIED INSTRUMENT SETTINGS:**
VERIFY INSTRUMENT SETTINGS AND CALIBRATION SEQUENCE ARE IN ACCORDANCE WITH TABLE 2 OF THE APPLICABLE PDI QUALIFICATION IMPLEMENTATION PROCEDURE!

LINEARITY CHECK

VERTICAL											
	SIGNAL 1		100	90	80	70	60	50	40	30	20
	SIGNAL 2		50	45	40	35	30	25	20	15	10
ATTENUATOR	GAIN	SET	-6 dB		-12dB		SET		+12	SET	+6
	AMP	80%	32 TO 48		16 TO 24		20%		64 TO 96	40%	64 TO 96
			40		20				80		80

COMMENTS	WELD / ITEMS EXAMINED
	RCF-G4-4
	RCF-G2-2
	RCF-G2-4

EXAMINER: Jason Nissen LVL.: II
EXAMINER: Jose Alejandro LVL.: II
REVIEWER: Darlene Tinsley LVL.: III DATE: 2-24-09

ANII:
DATE: 3/5/09
PAGE 2 OF 5

ACCESS: FORMS DATABASE 07-25-07

TENNESSEE VALLEY AUTHORITY	MANUAL ULTRASONIC PIPING EXAMINATION DATA SHEET	REPORT NUMBER R-P0147

PROJECT: WBN UNIT/CYCLE 2/00
SYSTEM: RCS
WELD I.D.: RCF-C2-2
CONFIG.: PUMP TO P
FLOW

EXAMINATION DATE 2-18-09
START TIME: 1124 END TIME: 1148
EXAM SURFACE ☐ID ☒OD
MATERIAL TYPE: ☐CS ☐SS ☐CSCL ☒CCSS
SURFACE TEMP.: 69.7° PYRO NO. 558271

PROCEDURE: N-UT-33 REV: 11 TC: N/A
Wo REFERENCE: ℄ of weld
Lo REFERENCE: TDC

EXAMINATION ANGLE	45RL DEG.	N	DEG.
AXIAL SCAN SENSITIVITY	62.0 dB	A	dB
CIRC. SCAN SENSITIVITY	64.0 dB		dB

IND NO.	L (in) FROM REF.			AT MAX AMP			MAX AMP % DAC	EXAM NO. 3-14	NOM. ANG.	NRI	INDICATION INFORMATION: TYPE, DAMPING, ETC.
	L1	L Max	L2	W MAX	MP MAX	D MAX					
								4	45RL	☒	
								5	45RL	☒	
								6	45RL	☒	
										☐	
										☐	
										☐	

REMARKS/LIMITATIONS No exam 3 scans from upstream side due to pump configuration. Examination performed maintaining 10-25% ID Roll. Scanned across the weld.

Scans 5 & 6 on

EXAMINER: Jason Nissen LEVEL: II
EXAMINER: Jose Alejandro LEVEL: II
REVIEWED BY: LEVEL: III DATE: 2-24-09

ANII:
DATE: 3/5/09

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ACCESS: FORMS DATABASE 10/18/01

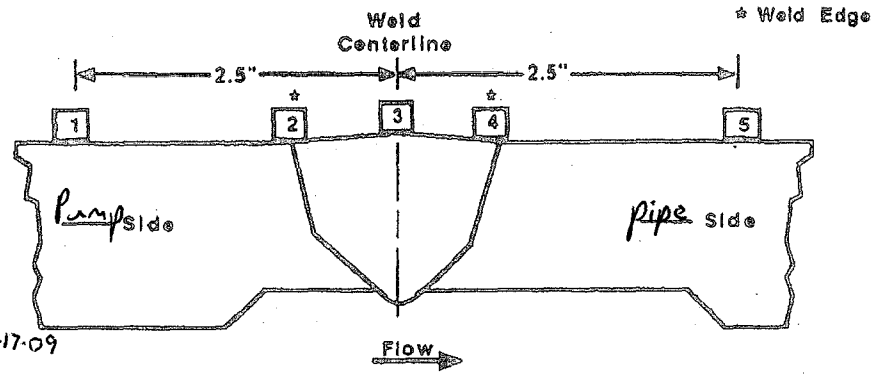
TVA	WALL THICKNESS PROFILE SHEET	REPORT NO: R-P0147

PROJECT: WBN
UNIT: 2
WELD NO: RCF-C2-2
SYSTEM: RCS

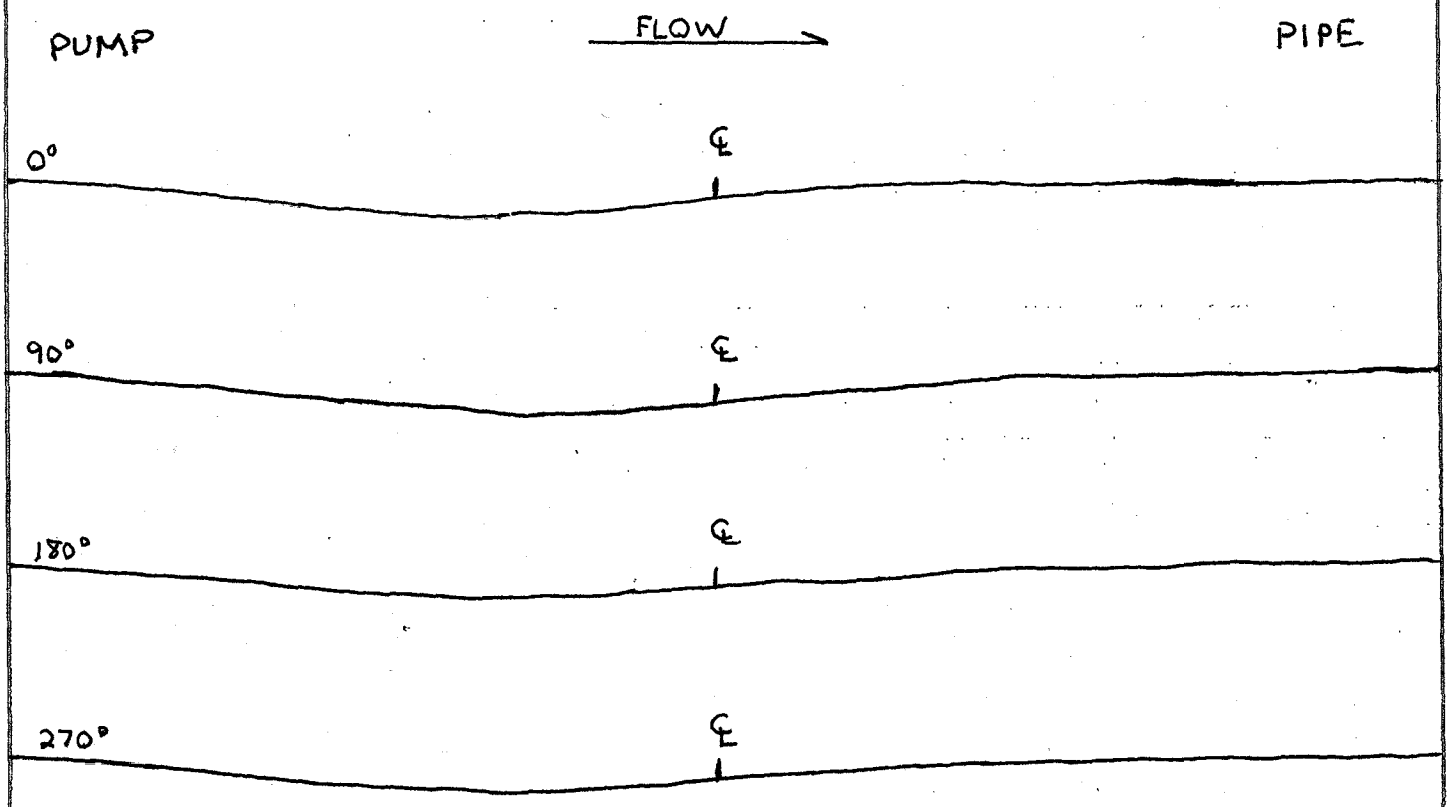
Record Thickness Measurements As Indicated, Including Weld Width, Edge-To-Edge At 0°

Position	0°	90°	180°	270°
1	N/A	N/A	N/A	N/A
2	N/A	N/A	N/A	N/A
3	3.47	3.22	3.22	3.20
4	3.04	3.13	3.04	3.11
5	2.99	3.00	2.88	~~2.87~~ 3.00"

JWM 2-17-09



CROWN HEIGHT: FLUSH
CROWN WIDTH: 2.5"
DIAMETER: 27.5"
WELD LENGTH: 107"



EXAMINER: [signature]
LEVEL: II
DATE: 2-11-09

REVIEWED BY: [signature]
LEVEL: III
DATE: 2-11-09

ANII: [signature]
DATE: 3/5/09

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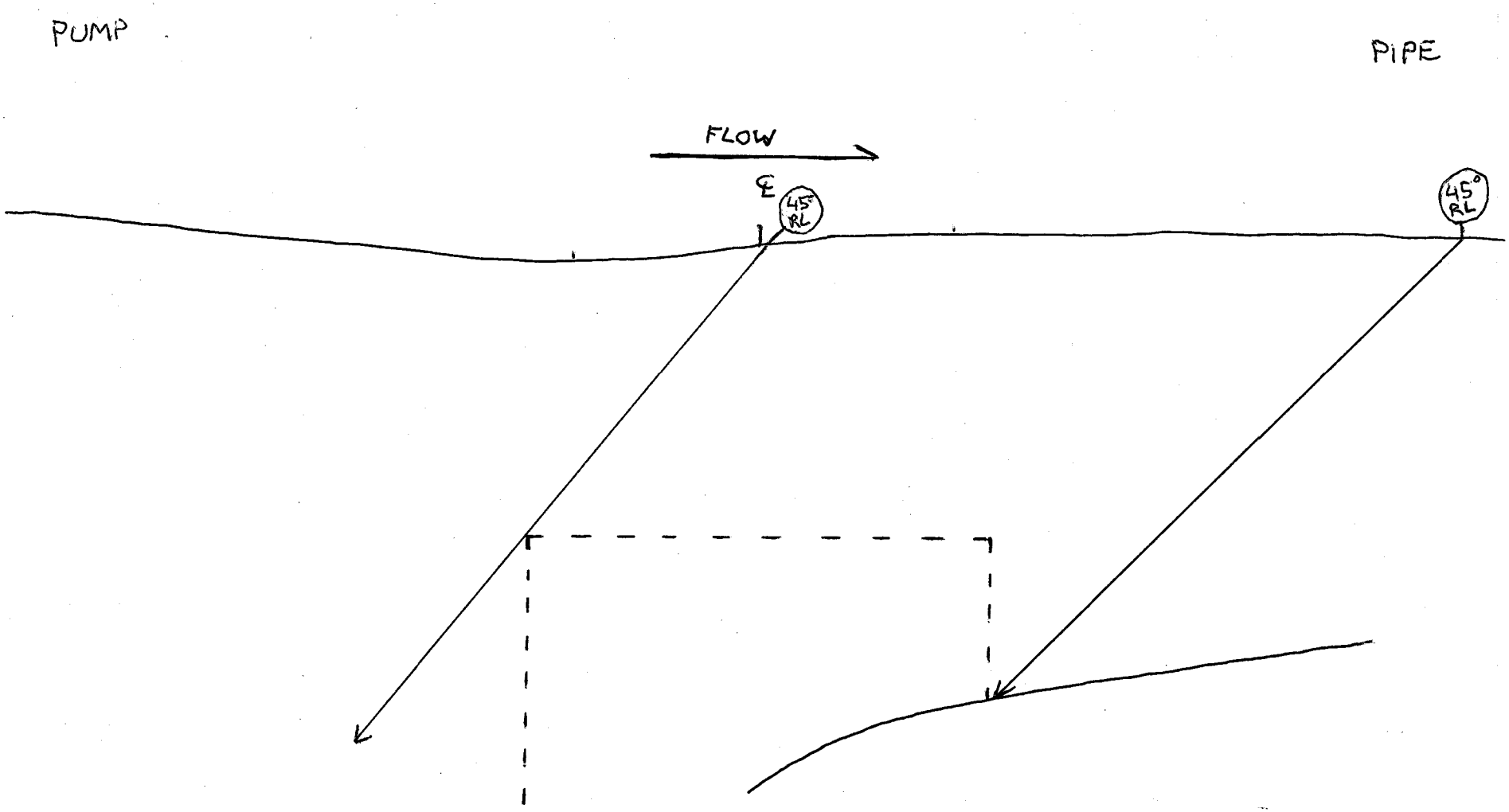
TVA 19668 (NP-5-89)

1-108-999-44

TVA Office of Nuclear Power	PROJECT: WBN UNIT: 2	SYSTEM: RCS WELD NO: RCF-C2-2	REPORT NO.: R-P0147



BY: Jason Nissen LEVEL: II DATE: 2/11/09 PAGE 5 OF 5