



Ultrasonic Inspection Report

Job #:
Report #:
Inspection Date:

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--UT-BV-1

March 13, 2012

Client:	CNRL	Location:	Redcliff South LSD: 08-23-012-07W4M
Procedure:	UT-0001	Item Inspected:	Vessel Horizontal Separator A2664161
Code:	ASME Section VIII Div 1		

Surface Condition:	Painted <input checked="" type="checkbox"/>	Sandblasted <input type="checkbox"/>	Machined <input type="checkbox"/>	As Cast <input type="checkbox"/>	As Forged <input type="checkbox"/>
	Weldment <input type="checkbox"/>	Other <input type="checkbox"/>	Material: C.S.		

Scanning Surface:	OD <input checked="" type="checkbox"/>	ID <input type="checkbox"/>	Other: <input type="checkbox"/>	Surface Temp (°C):	> 5° / < 60°
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Method:	Contact <input checked="" type="checkbox"/>	Immersion <input type="checkbox"/>	Other <input type="checkbox"/>		
Type:	P/E <input type="checkbox"/>	T/T <input type="checkbox"/>	Dual <input checked="" type="checkbox"/>	Automated <input type="checkbox"/>	TOFD <input type="checkbox"/>
Application:	Laminar <input checked="" type="checkbox"/>	Shear Wave <input type="checkbox"/>	Volumetric <input type="checkbox"/>	Thickness <input checked="" type="checkbox"/>	

Instrumentation:	Mfg: G.E.	Type: Krautkramer	Equip #: DMS2	Serial #: 020XP6
Calibration:	Date: 01/12/2012		Reference Flaw Size: Backwall	
Calibration Block (s):	Type:	Block#:	Type:	Block#:
	Type: .5" Stepwedge	Block#: 10-2192	Type:	Block#:

Couplant:	Brand: Sono Tech	Type: Echogel	Cable:	Type: Coaxial	Length: 36"
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PROBE						Settings - dB			Range - <input type="checkbox"/> IN. <input type="checkbox"/> MM		
Manufacturer	Type	Serial #	Angle	Frequency	Size	Ref Level	Scan Level	Transfer Value	Screen Size	Skip Value	Beam Travel
G.E.	Dual	0200LL	0	7.5Mhz	0	6db					

Scope and Inspection Results

Carry out UT examination of Horizontal Separator A2664161.
 Check for corrosion of the Heads, shell and associated piping to verify integrity for service and identify any areas of concern.

Results:
 UT examination was carried out; all readings taken were 10" band scans with three readings per TML location/band. Minimum, Maximum and Average readings were taken and recorded in each location.
 All readings were found to be at or above nominal on the Heads, shell and associated piping.
 See attached Pictures, drawing and UTM Readings for locations and thicknesses recorded.

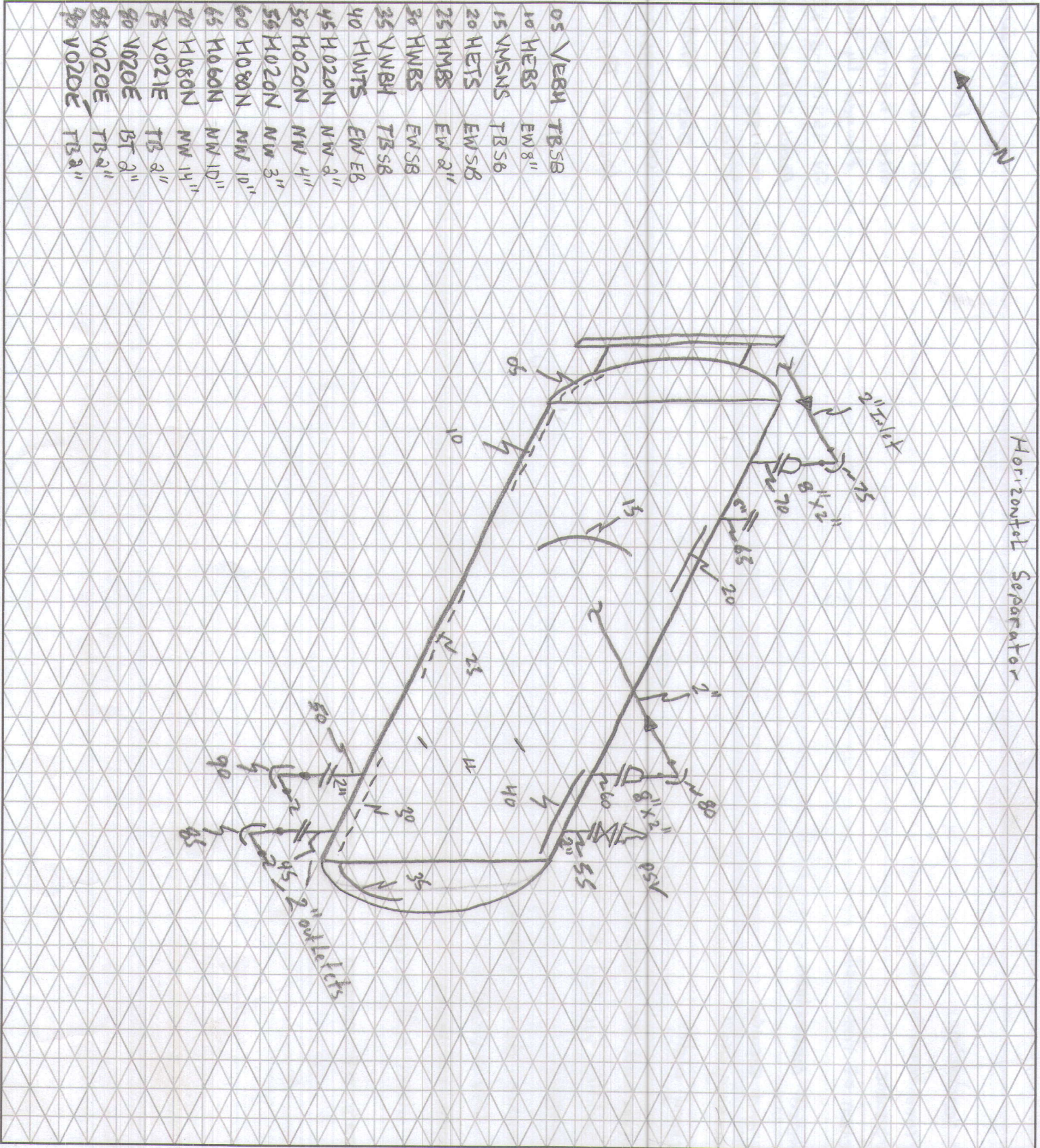
Recommendation:
 Continue to carry out UT corrosion survey and Visual inspection at the required inspection frequency.

Final Comment:
 Horizontal Separator is fit for service.

Inspection Limitation(s): None

Time and Billing Information:									
Vehicle #:	001	Kms:		Hrs		Tech. (Name):	Blair Verge	SNT-TC-1A:	1
Time In:	00:00	Time Out:	00:00			Tech. (Sign):		CGSB Level:	I
Time In:	00:00	Time Out:	00:00			Client (Name):		CGSB #:	5586
Personnel:	Aryalee Martin Blair Verge				Client (Sign):				

Additional Billing Information: : -



05	VERGE	TRSB
10	HERS	EW 8"
15	VMSNS	TRSB
20	HETS	EW SB
25	HMB	EW 2"
30	HMB	EW SB
35	VNBH	TRSB
40	HMTS	EW EB
45	H020N	NW 2"
50	H020N	NW 4"
55	H020N	NW 3"
60	H080N	NW 10"
65	H060N	NW 10"
70	H080N	NW 14"
75	V021E	TR 2"
80	V020E	BT 2"
85	V020E	TR 2"
90	V020E	TR 2"

CUSTOMER: CNRL **FACILITY:** Redcliff South **LSD:** 8-23-012-7W4m
P & ID: _____ **DRAWN BY:** B. Verge **DATE:** Mar 13/12 **DRAWING NO.** _____

VESSEL INFORMATION:
Equip. No. V-102 Pro. Reg. No. (A) 2664161 C.R.N. K1666.23 Serial No. 2059.90 Yr. Inst. _____
Code/Div. _____ Size: 36" ID/ODX: _____ Manufacturer: Sure Weld Industries Ltd Yr. Blt. 1990
C. Stamp: yes Service: Sweet PWHT: _____ J.E.: _____ Radiography: RT-2 Insulated: NO

HEAD: _____ **SHELL:** _____
Top Mat'l. _____ Top Nom: _____ Top C.A. _____ Material: _____ Nominal: _____ C.A. 059"
Btm Mat'l. _____ Btm Norm: _____ Btm C.A. _____

BOOT: _____ **CHANNEL:** _____
Head Mat'l: _____ Head Nom. _____ Head C.A. _____ Top Mat'l. _____ Top Nom. _____ Top C.A. _____
Shell Mat'l: _____ Shell Nom. _____ Shell C.A. _____ Btm Mat'l. _____ Btm Norm. _____ Btm C.A. _____

MAWP Shell Side: 259 psi @ Temp. 140°F MAWP Tube Side: _____ @ Temp. _____

PIPING INFORMATION: momt 259 psi -20°F Line No. (s) **(PLEASE PUT LINE NUMBERS ON APPLICABLE LINES ON THE DRAWING)**
Piping Class: _____ Service: _____ Yr. Blt. _____
MAWP: _____ @ Temp. _____ Size & Schedule of Piping **(PLEASE PUT APPROPRIATE SIZES AND SCHEDULES OF PIPING ON DRAWING)**

UT Readings for Horizontal Separator A2664161

	<u>Minimum</u>	<u>Maximum</u>	<u>Average</u>
LOC 5	0.378	0.401	0.399
LOC 10	0.401	0.41	0.401
LOC 15	0.371	0.408	0.407
LOC 20	0.406	0.408	0.408
LOC 25	0.404	0.41	0.406
LOC 30	0.401	0.41	0.409
LOC 35	0.367	0.387	0.372
LOC 40	0.406	0.416	0.416
LOC 45	0.46	0.495	0.477
LOC 50	0.444	0.512	0.465
LOC 55	0.466	0.491	0.481
LOC 60	0.509	0.545	0.539
LOC 65	0.848	0.87	0.867
LOC 70	0.481	0.556	0.548
LOC 75	0.217	0.221	0.221
LOC 80	0.216	0.224	0.222
LOC 85	0.224	0.244	0.238
LOC 90	0.202	0.229	0.21