

Location	Serial #		Work Completed		Tank Manufacture and Year
111/04-19-050-20 W3 TK 2	04-03-26 13111				Universal 2004
Tank Inspection Repairs			Inspection Date Previous and New		
			June 26/18		
	YES	NO	Yes	No	Comments
Flanged flow line inlet	Yes				Install new gasket when blind is pulled
Gas line supports needed		No			
Burner thermo weld right location	Yes				If NO, Install @ 24" - 36" over & 18" up from Firetube
Burner stand position right	Yes				
Gauge board in good shape	Yes				
Fire tube good and what type of stack 90 or tee		90 No			Ovalled & Klinkers Replace fire tube
Stack Cap Removed	Yes				
Temp Gauge at 7' level beside gauge board		No			Install at 7' beside gauge board & Mark water temp
Temp Gauge at 13' level	Yes				Mark oil temp
New gauge cable/roller system/float needed		No			
Thief Hatch lid removed	Yes				
Spout valve removed and blanked	Yes				
Spout riser cut off and marked cut off	Yes				
Spout stand removed, tabs cut off		No			Cut off tabs
Ladder cage filled in	Yes				
Scada 2" ball valve	Yes				
Heat Trace to Scada Nozzle Needed		No			
Load pump riser installed	N/A	N/A			If NO, Only if requested (7' or 13')
Make sure crossover is at proper height (100m³ - 110m³)					
Vault					
3'8" test cock	Yes				MEASURE HEIGHT - CHANGE VALVE/NIPPLE/90/PLUG AND CHAIN
4'8" test cock	Yes				MEASURE HEIGHT - CHANGE VALVE/NIPPLE/90/PLUG AND CHAIN
5'8" test cock	Yes				MEASURE HEIGHT - CHANGE VALVE/NIPPLE/90/PLUG AND CHAIN
7' test cock	Yes				MEASURE HEIGHT - CHANGE VALVE/NIPPLE/90/PLUG AND CHAIN
9'6" test cock	Yes				MEASURE HEIGHT - CHANGE VALVE/NIPPLE/90/PLUG AND CHAIN
11'6" test cock only in 1000bbl/160m³	Yes				MEASURE HEIGHT - CHANGE VALVE/NIPPLE/90/PLUG AND CHAIN
4' with 4" flanged valve and riser	Yes				MEASURE HEIGHT - ENSURE VALVE GAURDS ARE INSTALLED CORRECTLY
6' with 3" flanged valve and riser	Yes				MEASURE HEIGHT - ENSURE VALVE GAURDS ARE INSTALLED CORRECTLY
13'4" or 9' with 4" flanged valve and riser	Yes				MEASURE HEIGHT - ENSURE VALVE GAURDS ARE INSTALLED CORRECTLY
Change all 1" valves	Yes				CHANGE ALL VALVES/NIPPLES/90/PLUG & CHAINS
Valve Guards on 3" & 4" Valves		No			Needs 1-3" & 1-4" guards, Needs 3 camlock caps
all risers marked	Yes				
Vault Doors Good	Yes				
Internal Upgrades					
Vault sting nozzle good	Yes				
Cross sting nozzle good	Yes				If NO, Replace & move under burner stand if possible
Test cock risers at proper height	Yes				
3" and 4" risers at proper height	Yes				
Defoamer installed	Yes				
Gauge guide wires removed	Yes				Float is wrapped on defoamer
Fire tube free of sand and clinkers		No			Needs Klinkers removed and cleaned
Thermo weld free of sand		No			Needs cleaning
Nozzles back welded	Yes				
Risers braced	Yes				
Floor in good shape	Yes				
Roof in good shape no visible holes	Yes				

Additional Information:

1. CLEAN OFF ALL RISERS INSIDE TANK Clean off thermo welds, replace fire tube, install temp gauge at 7' level beside gauge board, install 90 on oil riser, Install gaurds 1-3" and 1-4", replace 1" valves

Tank has Normal Door replace gauge cable

Completion Date:

Vendors Signature & print name:

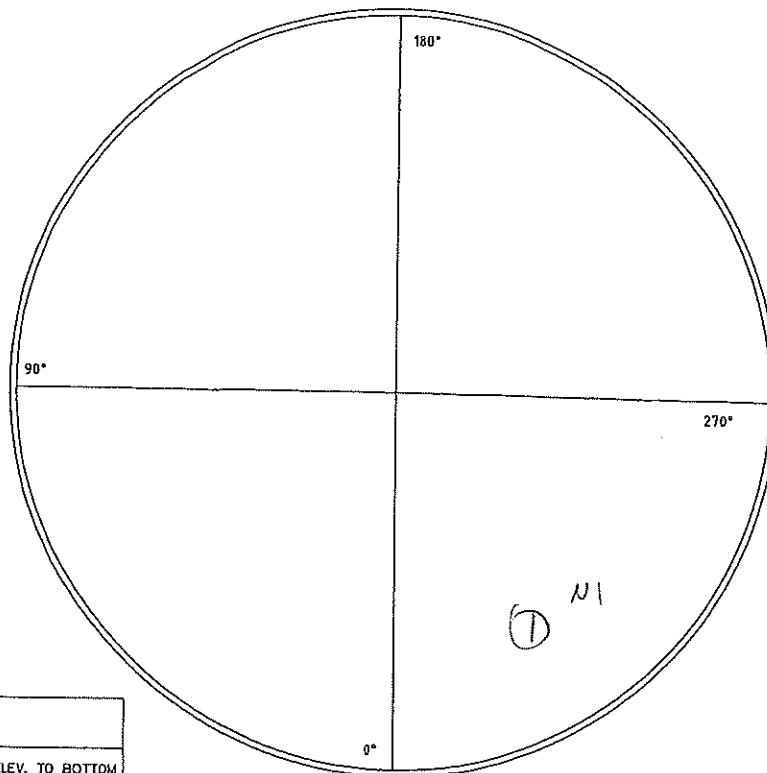
Husky Representative Signature & print name:

****This confirms that: all blinds have been removed/Door is installed on tank/valves are closed and handles on correctly - Tank is ready for flood up****

WELDERS

NAME	WELD ID
Bral Weber	BW

x WELD PROCEDURE - L&L 15



BILL OF MATERIALS

ID	SCH	DESCRIPTION	HEAT
1	3m	3/4 Collar A105	1767
2			
3			
4			
5			
6			
7			
8			
9			
10			

NOZZLES

ID	LOCATION	ELEVATION
N1	Water Temp	7'
N2		
N3		
N5		
N6		
N7		

PATCHES

ID	SIZE	THK	LOCATION	ELEV. TO BOTTOM
A				
B				
C				
D				

DESCRIPTION OF RE-PAIRS:

New Water Temp collar

REV.	DESCRIPTION	DATE	DRAWN	CHKD	APPD
1		Jan 17, 2011	SL	GR	SL

COMPANY NAME:

Husky

LOG

111/4-19-50-20 w/3

DATE AND TIME

04-03-26

JOB NAME:

WELL

N.T.S.

UNIT

SH or TL

REV

REV

CAD DRAWING: DO NOT CHANGE MANUALLY

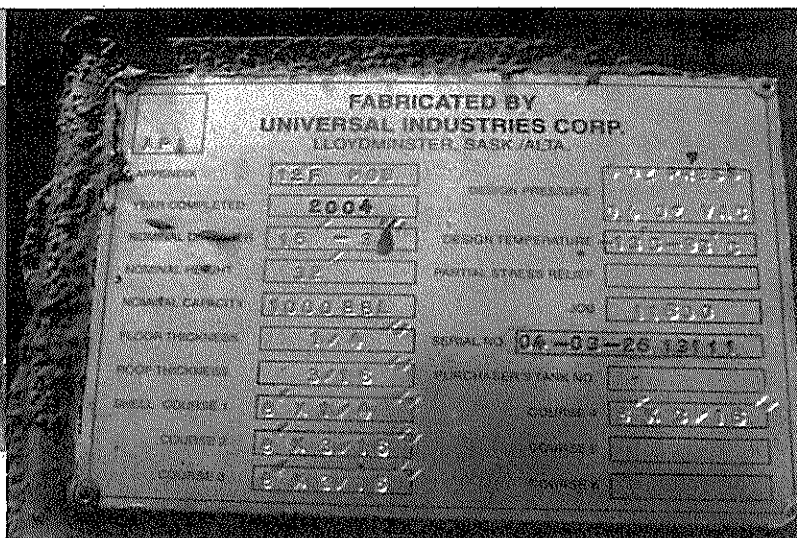
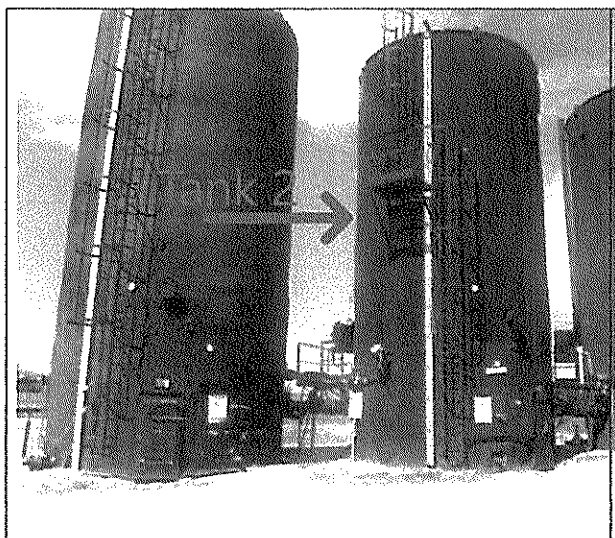
Type of Inspection: VT Rev: 3.0
Test Technique: UT thickness(4.2)
Equipment: DMS2 / FLASHLIGHT GRINDER
Code / Standard: client information

Client: HUSKY OIL OPERATIONS
IRISNDT #: LYN1800931
Location: A4-19-50-20 W3M
Item Inspected: 1000 bbl tank 2 s/n# 04.03.26.13111

Date: 26-Jun-18
WO #: 81304614
PO #: 8401273069

a UT and visual inspection was carried out as requested on 1000bbl tank, refer to attached pages for results:

1000bbl tank 2 S/n 04.03.26.13111: replace the firetube, 5yr turnaround with tube.



DMS 2 S/N# 31074 CAL DATE : JAN3 2018.

F2HE PROBE S/N# SCA0690

APPROVER: ANGELA LOWE 2Z-2013152

Inspection Limitation(s): oil/ shale on the shell and piping. heavy scale buildup on the floor.

Unit#: <u>767</u>	Kilometers: <u>0</u>	Consumables:	Interpretation by:
In: _____ Out: _____ Hrs: _____	In: _____ Out: _____ Hrs: _____	MIN	Stephen Bryan
Personnel:			(Print)
STEPHEN BRYAN / BRAYDEN MCGINNIS			<i>[Signature]</i>
			(Sign)
			SNT-TC-1A: _____
			C.G.S.B.: _____
			(Level)
			C.G.S.B #: <u>12459</u>
			Client Representative: _____
			(Print)
			I am in full agreement with report contents
			(Sign)

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Location: A4-19-50-20W3

Tank Type: TANK 2

Date: June 26. 2018

Mfg: Universal

Year blt: 2004

S/N: 04.03.26.13111

CAP: 1000 bbl

Floor Thk: $\frac{1}{4}$ "

Shell Thk: $\frac{1}{4}''$ $\frac{3}{16}''$

Roof Thk: $\frac{3}{16}$ "

Requisitioned by: Steve. Hughes

Approver: Angela Lowe

Approver Code: 27-2013152

WO #: 81304614

PO#: 8401273069

CC:

SAP #:

INTERNAL INSPECTION:

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)				
T2	Corrosion			✓	
T3	Leaks			✓	
T4	Vibration			✓	
T5	Dissimilar Flange Rating			✓	
T6	Ladder/Stairway	✓	✓		
T7	Platform	✓	✓		
T8	Electrical Ground	✓	✓		
T9	Cathodic Protection			✓	
T10	Painted Inactive Corrosion			✓	
T11	Coating/Painting			✓	
T12	Level Gauge	✓	✓		
T13	Bottom	✓			1
T14	Secondary Containment			✓	
T15	Shell	✓	✓		
T16	Roof	✓	✓		
T17	Agitator/ Mixer			✓	
	SUPPORTS				
T31	Other (Please Explain)				
T32	Foundation			✓	
T33	Anchor Bolts			✓	
T34	Windgirders			✓	
	CONNECTIONS				
T41	Other (Please explain)				
T42	Small Branches			✓	
T43	Nozzles	✓	✓		
T44	Pipe Manifolds			✓	
T45	Swing Lines			✓	
T46	Manways/Hatches	✓	✓		
T47	Reinforcing Pads			✓	
T48	Inadequate Thread Engagement			✓	
T49	Bolting			✓	
T50	Flanges	✓	✓		
T51	Leak Clamps			✓	
	INSULATION				
T61	Other (Please explain)				
T62	Damage			✓	
T63	Penetrations	✓	✓		
T64	Jacket			✓	
T65	Banding			✓	
T66	Seals/Joints			✓	
	RELIEF DEVICE				
T71	Other (Please explain)				
T72	Corrosion			✓	
T73	Leaks			✓	
T74	Restricted InleUOutlet			✓	
T75	Manual Operation Lever			✓	

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)				
T2	Corrosion	✓			2
T3	Erosion			✓	
T4	Distortion			✓	
T5	Blisters			✓	
T6	Deposits	✓			3
T7	Welds	✓	✓		
T8	Nozzles	✓	✓		
T9	Shell	✓	✓		
T10	Roof	✓	✓		
T11	Floor	✓	✓		4
	GENERAL				
T21	Other - Firetube	✓			5
T21	Other - Anodes			✓	
T22	Annular Ring			✓	
T23	Sump			✓	
T24	Roof Supports			✓	
T25	Thermowells	✓	✓		
T26	Metallic Linings			✓	
T27	Non Metallic Linings			✓	
T28	Internal Steam Coil / other Piping			✓	
T29	Level Gauge	✓			
T30	Other Welded Attachements	✓	✓		
	Backwelding Req'd			✓	

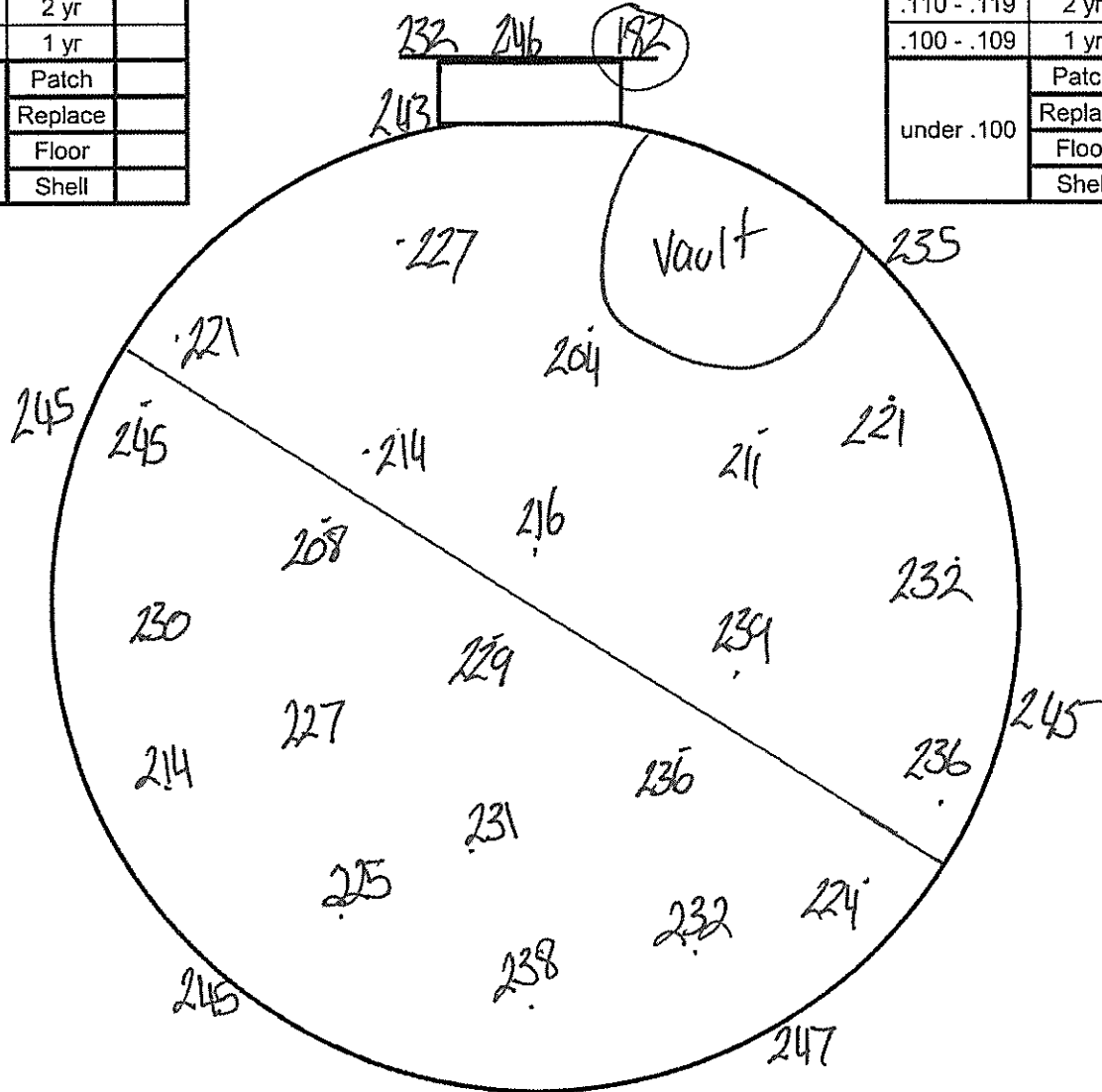
[illegible]

Without MFE		
.170 - up	5 yr	✓
.160 - .169	4 yr	
.150 - .159	3 yr	
.140 - .149	2 yr	
.130 - .139	1 yr	
under .130	Patch	
	Replace	
	Floor	
	Shell	

S/N: 04.03.26.1311 TK2

Location: A4-19-50-20W3

With MFE		
.140 - .150	5 yr	
.130 - .139	4 yr	
.120 - .129	3 yr	
.110 - .119	2 yr	
.100 - .109	1 yr	
under .100	Patch	
	Replace	
	Floor	
	Shell	



Comments:

Heavy Surface Scale Buildup on the Floor, Lowest Reading of 0.204" on the Floor. Low of 0.182" on shell.

Replace the Firetube. 5YR Turnaround.

Inspected by:

Stephen Bryan

Date:

Date: June 26, 2018

Husky Inspector:

Date:



MAGNETIC PARTICLE INSPECTION REPORT

CA1098-MT-192

Page 1 of 1

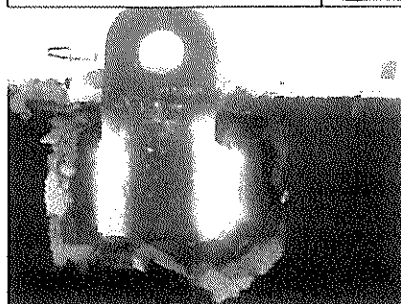
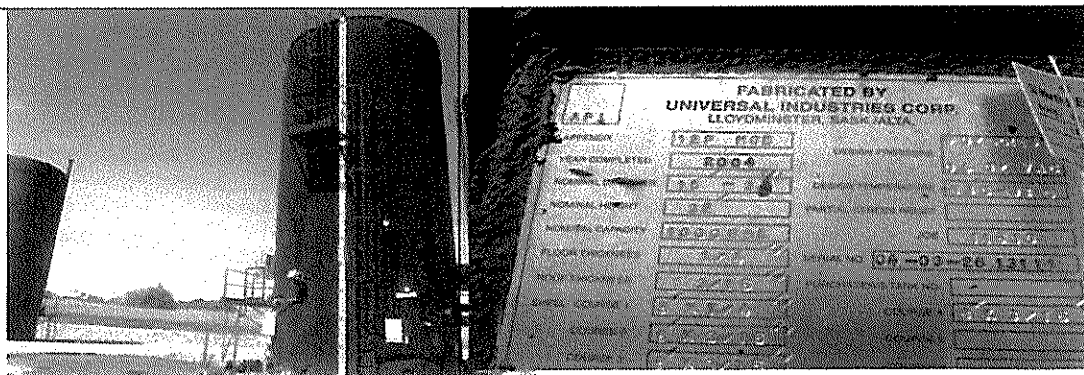
Procedure: 5.0	Rev: REV 3.0	Client: HUSKY OIL OPERATIONS	Date: 16-Jul-18
Technique: MT-2V		IRISNDT #: LYN1801050	WO #: 81304614
Code / Standard: Crack detection / client info		Location: 111 / 4-19-50-20 W3M	PO #: 8401273069
Other: n/a		Item Inspected: 1000bbl tank 2 s/n# 04.03.26.13111	

Surface Condition: Buffed	Material: Carbon Steel	Thickness: > 3/16"	Heat Treatment: Not Applicable
Magnetizing Equipment: Yoke	Method of Magnetization: AC Continuous	IRISNDT #: 40130	Mfg: contour probe
Verification Date: 16-Jul-18	Verification Weight: <input checked="" type="checkbox"/> 10 lb. <input type="checkbox"/> 40 lb.	Serial #: 49045	Verification per ASME V Art 7 T.762
Blacklight: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/A	IRISNDT #: n/a	Blacklight Meter:	IRISNDT #: n/a
	Verification per ASME V Art 7 T.777.2		Calibration Due Date:
Whitelight: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N/A	Verification per ASME V Art 7 T.777.1	Lighting Equipment:	Yoke Light (10W)
Magnetic Particles:	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Red <input type="checkbox"/> Grey <input checked="" type="checkbox"/> Black <input type="checkbox"/> Fluorescent	
	Batch #: 65100617	Mfg: ARDROX	Type: 8032
Background: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N/A	Batch #: 65050217	Mfg: ARDROX	Type: 8901W

a wet black magnetic particle inspection was carried out as requested on existing lifting lug welds on 1000bbl tank. four lugs in total

RESULTS: no cracking evident on any welds.

Requested by Roger Skolrood



typical of four lugs.

Inspection Limitation(s): n/a

Unit#: 767	Kilometers: _____	Consumables:	Interpretation by:
In: _____ Out: _____ Hrs: _____		APPROVER: ANGELA LOWE 22-2013152	Stephen Bryan
In: _____ Out: _____ Hrs: _____			(Print)
Personnel:			(Sign) _____
STEPHEN BRYAN / BRAYDEN MCGINNIS			Client Representative: _____
			I am in full agreement with report contents (Print) _____
			(Sign) _____
			SNT-TC-1A: II
			C.G.S.B.: II (Level)
			C.G.S.B #: 12459

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MAGNETIC PARTICLE INSPECTION REPORT

CA1101-MT-127
Page 1 of 1

Procedure: 5.0	Rev: 3.0	Client: HUSKY OIL OPERATIONS LIMITED	Date: 06-Aug-18
Technique: MT-2V		IRISNDT #: LYN1801191	WO #: 81304614
Code / Standard: API 650 - Sect 8.2.4		Location: 111/4-19-50-20w3	PO #: 8401237728
Other:		Item Inspected: Tank items as listed below	

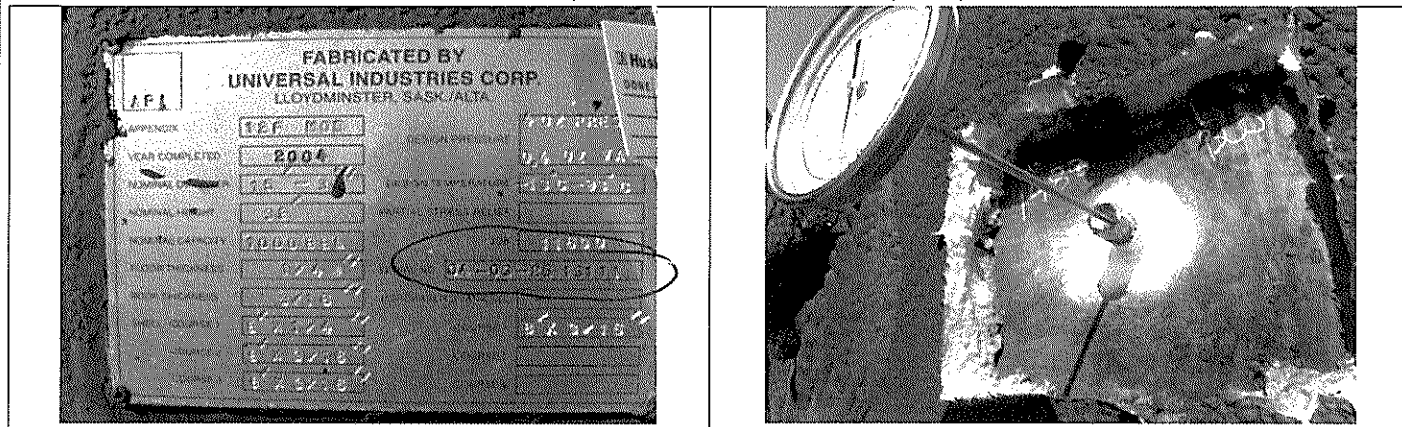
Surface Condition: As Welded	Material: Carbon Steel	Thickness: Various	Heat Treatment: Not Applicable
Magnetizing Equipment: Yoke	Method of Magnetization: AC Continuous	IRISNDT #: 40215	Mfg: Contour
Verification Date: 06-Aug-18	Verification Weight: <input checked="" type="checkbox"/> 10 lb. <input type="checkbox"/> 40 lb.	Serial #: 49161	Verification per ASME V Art 7 T.762
Blacklight: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/A	IRISNDT #:	Blacklight Meter:	IRISNDT #:
	Verification per ASME V Art 7 T.777.2		Calibration Due Date:
Whitelight: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N/A	Verification per ASME V Art 7 T.777.1	Lighting Equipment:	Yoke Light (10W)
Magnetic Particles:	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Red <input type="checkbox"/> Grey <input checked="" type="checkbox"/> Black <input type="checkbox"/> Fluorescent	
	Batch #: 318-60	Mfg: Magnaflux	Type: 7C
Background: <input type="checkbox"/> Y <input type="checkbox"/> N/A	Batch #: 1984	Mfg: Ardrex	Type: 8901W

A magnetic particle inspection was carried out on 100% of the following items on 1000BBL tank
@ 111/4-19-50-20w3

Tank #2 and #3

welder: BW

1- 3/4" Temp. Thermo. well collar fillet weld (in&out)



RESULTS: All items inspected ACCEPTABLE TO CODE.

REQ: Roger Skolrood APP: Angela Lowe 2Z-2013152

Inspection Limitation(s):

Unit#: 1000	Kilometers: _____	Consumables: _____	Interpretation by: _____
In: _____ Out: _____ Hrs: _____		---MIN---	Sheldon Trachuk
In: _____ Out: _____ Hrs: _____			(Print) _____
			(Sign) _____
Personnel: Sheldon Trachuk Marshall Lundell			SNT-TC-1A: 2
			C.G.S.B.: 2
			(Level)
			C.G.S.B #: 11405
			Client Representative: _____
			(Print) _____
			I am in full agreement with report contents
			(Sign) _____

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DATE 09/13/2018

CUSTOMER

BONNEY ORDER NO. B000246092

ORDER NO.: S759344823

SHIP TO: MRC GLOBAL (CANADA) ULC
502-25 AVENUE
NISKU AB T9E 0K6
Canada

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
24 18C10693	200	1484	3/8 3M A105N COUP T SA/A105N Al 0.031 C 0.200 Co 0.002 Cr 0.040 Cu 0.050 Mn 1.030 Mo 0.004 Nb 0.014 Ni 0.020 P 0.006 S 0.027 Si 0.240 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 73,503 Y/S(PSI) 51,500 EL(%) 34.00 RA(%) 69.00 Brinell Hardness 141 BHN 141 BHN
26 18C10720	550	1767	3/4 3M A105N COUP T SA/A105N Al 0.025 C 0.200 Co 0.001 Cr 0.040 Cu 0.040 Mn 1.020 Mo 0.004 Nb 0.013 Ni 0.020 P 0.005 S 0.024 Si 0.210 V 0.003 CE(Long Formula) = 0.38 T/S(PSI) 74,968 Y/S(PSI) 49,985 EL(%) 36.10 RA(%) 58.16 Brinell Hardness 137 BHN 139 BHN
27 18C10795	9	1341	2 1/2 3M A105N COUP T SA/A105N Al 0.024 C 0.200 Co 0.002 Cr 0.040 Cu 0.030 Mn 1.110 Mo 0.002 Nb 0.013 Ni 0.010 P 0.006 S 0.018 Si 0.230 V 0.004 CE(Long Formula) = 0.40 T/S(PSI) 73,777 Y/S(PSI) 49,661 EL(%) 33.75 RA(%) 64.71 Brinell Hardness 132 BHN 135 BHN
29 18C10822	17	1600	4 3M A105N COUP T SA/A105N Al 0.017 C 0.270 Cb 0.000 Co 0.000 Cr 0.100 Cu 0.300 Mn 0.850 Mo 0.040 Ni 0.110 P 0.009 S 0.016 Si 0.260 V 0.002 CE(Long Formula) = 0.47 T/S(PSI) 79,500 Y/S(PSI) 49,200 EL(%) 31.00 RA(%) 49.20 Brinell Hardness 156 BHN 157 BHN

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by Kylee Ruiz

Kylee Ruiz
QUALITY PROCESS MANAGER

CMTR: REV2

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
------	----------	---------	--

1. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
2. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT (EUROPEAN STANDARD)
3. THE UNIT OF MEASURE FOR TENSILE AND YIELD (0.2%) STRENGTH ARE REPORTED IN PSI.
4. ITEM - 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 59, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 75, 77, 78, 79, 80, 82, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 107 -ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
5. ITEM - 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 18, 20, 21, 22, 23, 24, 26, 27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48, 56, 57, 58, 59, 60, 61, 63, 65, 66, 69, 71, 73, 74, 76, 77, 78, 79, 80, 82, 87, 88, 89, 90, 91, 93, 96, 97, 99, 101, 102, 103, 104 -CERTIFYING ASTM A105-14 / ASME SA105-17 EDITION.
6. ITEM - 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 18, 20, 21, 22, 23, 24, 26, 27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48, 56, 57, 58, 59, 63, 65, 66, 69, 71, 77, 78, 79, 80, 82, 87, 88, 89, 90, 91, 93, 96, 97, 99, 101, 102, 103, 104 -THE MATERIAL SUPPLIED IDENTIFIED AS A105N WAS NORMALIZED IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.
7. ITEM - 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 18, 20, 21, 22, 23, 24, 26, 27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48, 56, 57, 58, 59, 63, 65, 66, 69, 71, 77, 78, 79, 80, 82, 87, 88, 89, 90, 91, 93, 96, 97, 99, 101, 102, 103, 104 -THE MATERIAL SUPPLIED AS A105N MEETS THE REQUIREMENTS OF BOTH NACE MR0103/ISO 17945 - 2015 & NACE MR0175/ISO 15156-2 - 2015 EDITION.
8. ITEM - 15, 17, 19, 25, 28, 46, 47, 49, 50, 53, 54, 55, 62, 64, 67, 68, 70, 72, 75, 84, 85, 86, 92, 94, 95, 98, 100, 105, 107 -CERTIFYING TO ASTM A350 LF2 17 REVISION.
9. ITEM - 15, 17, 19, 25, 28, 46, 47, 49, 50, 53, 54, 55, 62, 64, 67, 68, 70, 72, 75, 84, 85, 86, 92, 94, 95, 98, 100, 105, 107 -THE MATERIAL OF THE FITTINGS SUPPLIED IS ASTM A350-LF2 BUT MEETS THE REQUIREMENTS OF ASME SA350-LF2.
10. ITEM - 15, 17, 19, 25, 28, 46, 47, 49, 50, 53, 54, 55, 62, 64, 67, 68, 70, 72, 75, 84, 85, 86, 92, 94, 95, 98, 100, 105, 107 -THE CHARPY V-NOTCH IMPACT TEST WAS PERFORMED AT -50 DEGREES FAHRENHEIT IN ACCORDANCE WITH A350-LF2.

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by

Kylee Ruiz

Kylee Ruiz

QUALITY PROCESS MANAGER

CMTR: REV2

CERTIFIED MILL TEST REPORT



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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.
			CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
11. ITEM - 15, 17, 19, 25, 28, 46, 47, 49, 50, 53, 54, 55, 62, 64, 67, 68, 70, 72, 75, 84, 85, 86, 92, 94, 95, 98, 100, 105, 107 -THE			
MATERIAL SUPPLIED AS A350 LF2 CL1 MEETS THE REQUIREMENTS OF BOTH NACE MRO103/ISO 17945 - 2015 &			
NACE MRO175/ISO 15156-2 - 2015 EDITION.			
12. ITEM - 15, 17, 19, 25, 28, 46, 47, 49, 50, 53, 54, 55, 62, 64, 67, 68, 70, 72, 75, 84, 85, 86, 92, 94, 95, 98, 100, 105, 107 -THE			
MATERIAL SUPPLIED WAS NORMALIZED IN ACCORDANCE WITH ASTM A350			
HEAT TREATING REQUIREMENTS.			
13. ITEM - 60, 61, 73, 74, 76 -THE MATERIAL SUPPLIED AS A105-QT MEETS THE REQUIREMENTS OF BOTH NACE			
MR0103/ISO 17945 - 2015 & NACE MR0175/ISO 15156-2 - 2015 EDITION.			
14. ITEM - 60, 61, 73, 74, 76 -THE MATERIAL SUPPLIED IDENTIFIED AS SA/A105-QT WAS QUENCHED AND TEMPERED			
IN ACCORDANCE WITH ASTM A105 HEAT TREATING REQUIREMENTS.			

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by

Kylee Ruiz

Kylee Ruiz

QUALITY PROCESS MANAGER

CMTR: REV2

WELDING PROCEDURE SPECIFICATION NO.: L & L-15 (Rev.1)

WELDING PROCEDURE QUALIFICATION RECORD NO.(S): WPS NO. L & L-15

QUALIFIED FOR

Base Metal (Typical): P1 to P1 (SA 36, SA 106 Gr.B, SA 105, SA 516 Gr.70 etc.)
Process(es): SMAW Weld Types: GROOVE & FILLET
Position: ALL POSITIONS Diameter: ALL DIAMETERS
Filler Metal: E6010, E7018-1

BASE METAL CONDITIONS & GROOVE THICKNESS RANGE QUALIFIED:

STANDARD APPLICATIONS AS WELDED

BASE METAL THICKNESS RANGE 4.8 to 38.1 mm (0.188 to 1.50 in.) inclusive

COMBINED DEPOSITED WELD METAL THICKNESS

ASME B31.1	<u>19.1 mm (0.750 in.) maximum</u>
ASME B31.3	<u>19.1 mm (0.750 in.) maximum</u>
ASME SECTION VIII, DIVISION 1	<u>38.1 mm (1.50 in.) maximum</u>

WMA

SAFETY CODES ACT - PROVINCE OF ALBERTA
WELDING PROCEDURE

Reg. No WP 1914.2
Spec No L+L-15 (REV.1)
Weld Process SMAW
Mett. Gr P No. 1 to P No. 1
Elec. Gr F No. 3+4 A No. 1
Th. Qual For 38.1 mm P.W.H.T. NO

Yr. 10, Mo. 01, Day 14, Signed R. ROSEBERG, P.ENG.
WELDING SPECIALIST

PROVINCIAL REGISTRATION

Ministry of Education, Culture & Religious Affairs
Training & Development
Division of Apprenticeship
Welding Procedure & Qualification

Reg. No. 580.3
Spec. No. L+L-15 (Rev. 1)
Process SMAW
Mett. Gr. P No. 1 to P No. 1
Elec. Gr. F No. 3+4 A No. 1
Th. Qual For (4.8-38.1) mm NO

Supporting PQR signed and dated 23/8/1999
Date 6 April 2010
Approved J. Chabreuil



Issued On: **Nov 02, 2017**

This pressure welder's licence authorizes
to weld on pressure equipment within the Province of Saskatchewan and is a record that
the holder has been tested in accordance with ASME Section IX. This licence may be
revoked at any time by the request of the Inspector or if the holder has not welded with
a process during a period of 6 months or more.

Out-of-Province Transfer

ID No. : **0574**

Welder's Licence

No : **028084**

Pipe Tested Class : **M**
Groove Weld
Ticket

Bradley Weber

Chief Inspector

Name: **Bradley Weber** Weld Symbol : **BW**

Process(es) QW350-357 (QW416).	SMAW	SMAW	Material P No. QW403.18 and QW423.1:	P1-15F P34,P4x
Filler Metal F No. QW404.15 and QW433:	F3	F4	Minimum Pipe O.D. QW309 / 403.16:	25 mm
Max Deposited Weld Metal(mm) QW404.30:	6.34	15.79	Weld Progression QW405.8:	Upward
Backing QW- 408.8 or QW402.4:	None	Metal	Positions Qualified QW461.9:	
			Groove	Filllet
Current Type / Polarity QW409.4:	ANY	ANY	ALL	ALL

SK ID No. : **005560**

Expires On: **12-Oct-2019**

 **Technical
Safety Authority
of Saskatchewan**

Welder's Licence
No : 029597
Pipe Tested Class : M
Groove Weld
Ticket

Luke Schempp

This pressure welder's licence authorizes
to weld on pressure equipment within the Province of Saskatchewan and is a record that
the holder has been tested in accordance with ASME Section IX. This licence may be
revoked at any time by the request of the Inspector or if the holder has not welded with
a process during a period of 6 months or more.

Out-of-Province Transfer

ID No. : 5867

Chief Inspector



Name: Luke Schempp		Weld Symbol: LES		
Process(es) QW350-357 (QW416)	SMAW	SMAW	Material P No. QW403, 18 and QW423, 1.	P1-15F P34, P4x
Filler Metal F No. QW404, 15 and QW433:	F3	F4	Minimum Pipe O.D. QW303 / 403, 16	25 mm
Max Deposited Weld Metal(mm) QW404, 30:	5.36	MAX	Weld Progression QW405, 3:	Downward/ Upward
Backing QW- 408, 8 or QW402, 4	None	Metal	Positions Qualified QW461, 9: Groove	Filler
Current Type / Polarity QW403, 4:	ANY	ANY	ALL	ALL

SK ID No. : 004380

Expires On: 22-Nov-2019