



Tank Inspection Report

Location: BSP Tank Yard

Tank Type: Production

Date: August 24 2020

Mfg: Foremost Universal LP

Year blt: 2013

S/N: 29202-7

CAP: 1000 bbl

Floor Thk: 44"

Shell Thk: 1/4"

Roof Thk: 3/16"

Requisitioned by: Mike Petryshen

Approver: Elton Zhou

Approver Code: 22-2023391

WO #: _____ PO#: 8401456505

CC: _____ SAP #: 1000026838

EXTERNAL 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	✓	✓		1
T8	Electrical Ground			✓	1
T9	Cathodic Protection			✓	
T10	Painted Inactive Corrosion			✓	
T11	Coating/Painting			✓	
T12	Level Gauge	✓	✓		
T13	Bottom	✓	✓		
T14	Secondary Containment			✓	1
T15	Shell	✓	✓		
T16	Roof	✓	✓		
T17	Agitator/ Mixer			✓	
	SUPPORTS				
T31	Other (Please Explain)				
T32	Foundation			✓	1
T33	Anchor Bolts			✓	
T34	Windgirders			✓	
	CONNECTIONS				
T41	Other (Please explain)				
T42	Small Branches			✓	1
T43	Nozzles	✓	✓		
T44	Pipe Manifolds			✓	
T45	Swing Lines			✓	
T46	Manways/Hatches	✓	✓		
T47	Reinforcing Pads	✓	✓		
T48	Inadequate Thread Engagement			✓	
T49	Bolting			✓	1
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				

INTERNAL INSPECTION:

ID	Item	Yes	Good	N/A	See Notes
	GENERAL				
T1	Other (Please Explain)				
T2	Corrosion	✓			2
T3	Erosion			✓	
T4	Distortion			✓	
T5	Blisters			✓	
T6	Deposits			✓	
T7	Welds	✓			
T8	Nozzles	✓			
T9	Shell	✓			
T10	Roof	✓			
T11	Floor	✓			
	GENERAL				
T21	Other - Firetube	✓	✓		
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]

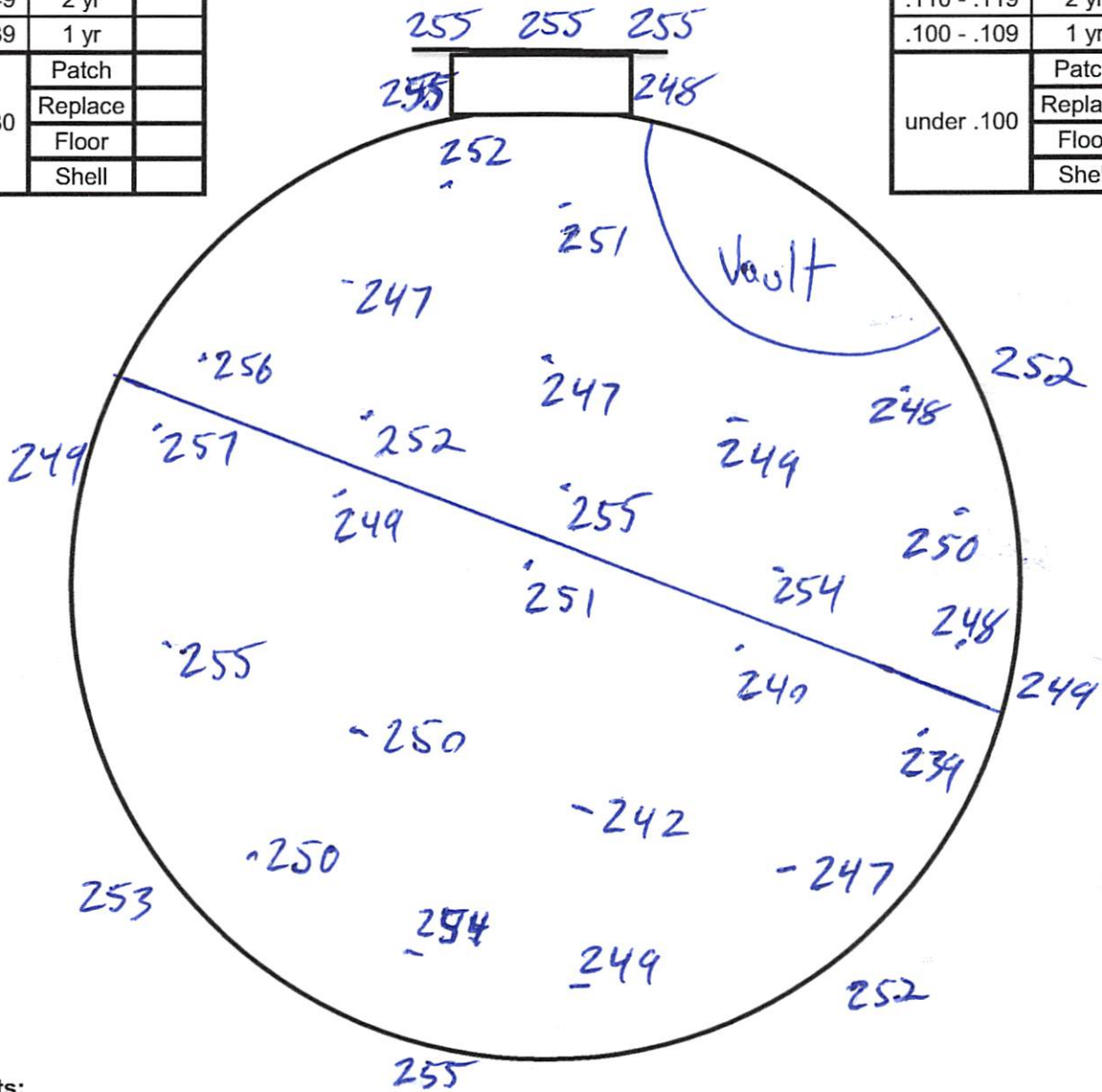


Without MFE		
.170 - up	5 yr	
.160 - .169	4 yr	
.150 - .159	3 yr	
.140 - .149	2 yr	
.130 - .139	1 yr	
under .130	Patch	
	Replace	
	Floor	
	Shell	

S/N: 29202-7

Location: BSM Tank Vard.

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:

- No recommendations Tank suitable for service.

Inspected by: Logan Skinner

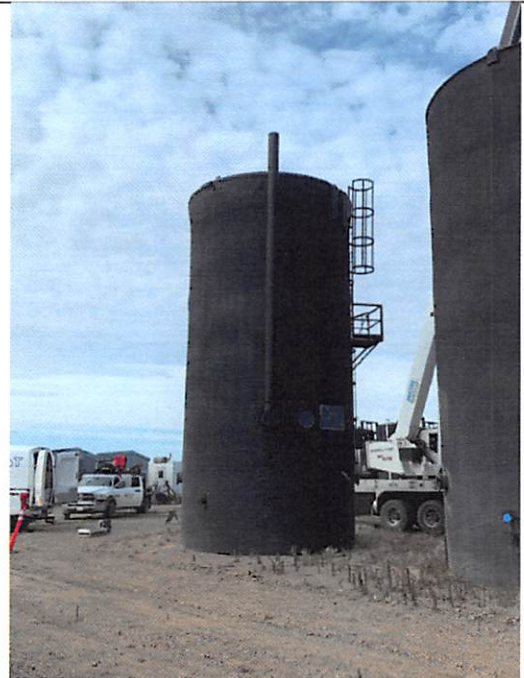
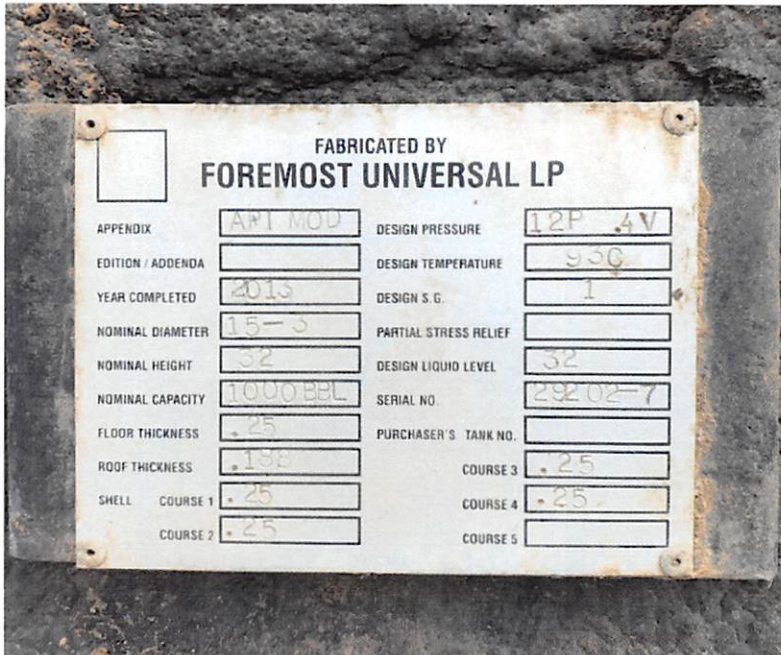
Date: August 24, 2020

Husky Inspector:

Date:

Type of Inspection: VT/UT/MFE	Rev: 3.0	Client: HUSKY OIL OPERATIONS LIMITED	Date: 2020-Aug-24
Test Technique: UT thickness/ MFE examination	IRISNDT #: LYN2000791	Job #:	
Equipment: DMSGO+, FH2E, Flashlight, Grinder	Location: BSM Tank Yard	PO #: 8401456505	
Code/Standard: Client Information	Item Inspected: Tank	Appr#	2Z-2023391

UT / MFE & Visual inspection was carried out on the following 1000BBL oil tank for the purpose of continued fitness for service and determination of inspection interval. See the field report for results of inspection, UT recorded values, and inspection interval.



Recommendations:

-No recommendations Tank suitable for service

MFE results :

-No indications were noted with the Floor scan. See following pages for UT values

Note: Spot UT carried out on the floor and shell as a representation of overall integrity not a 100% scan method.
DMSGO # 31139 cal. date due. Nov. 1 2020 Probe: FH2E SN: SCA1696

Inspection Limitation(s): N/A

Unit#: 1194 Kilometers: _____ In: _____ Out: _____ Hrs: _____ In: _____ Out: _____ Hrs: _____ Personnel: Logan Skinner Jordan Ross	Consumables: Min Requested By: Mike Petryshen Approver: Elton Zhou	Interpretation by: Logan Skinner (Print) (Sign) _____ Client Representative: I am in full agreement with report contents (Print) _____ (Sign) _____	SNT-TC-1A: UT-1 C.G.S.B. #: 2 (Level) C.G.S.B. #: 17159
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Procedure: 5.0	Rev: 4.0	Client: HUSKY OIL OPERATIONS LIMITED	Date: 2020-Aug-24
Technique: MT-2V		IRISNDT #: LYN2000791	Job #:
Code/Standard: Crack Detection		Location: BSM TANK YARD LOT#3	PO #: 8401456505
Other: ASME Sec V, Art 7		Item Inspected: Tank Lift Lugs	APPR# 2Z-2023391

Requested By Mike Pertyshen	Approver Elton Zhou
Specification: N/A	Standard: N/A

Surface Condition: Buffed	Material: P1	Thickness: >1/8"	Heat Treatment: Not Applicable
Magnetizing Equipment: Yoke	Method of Magnetization: AC Continuous	Asset #: 40385	Mfg: Contour Probe
Verification Date: 2020-Aug-24	Verification Weight: <input checked="" type="checkbox"/> 10 lb. <input type="checkbox"/> 40 lb.	Asset #: 40490	Verification per ASME V Art 7 T-762

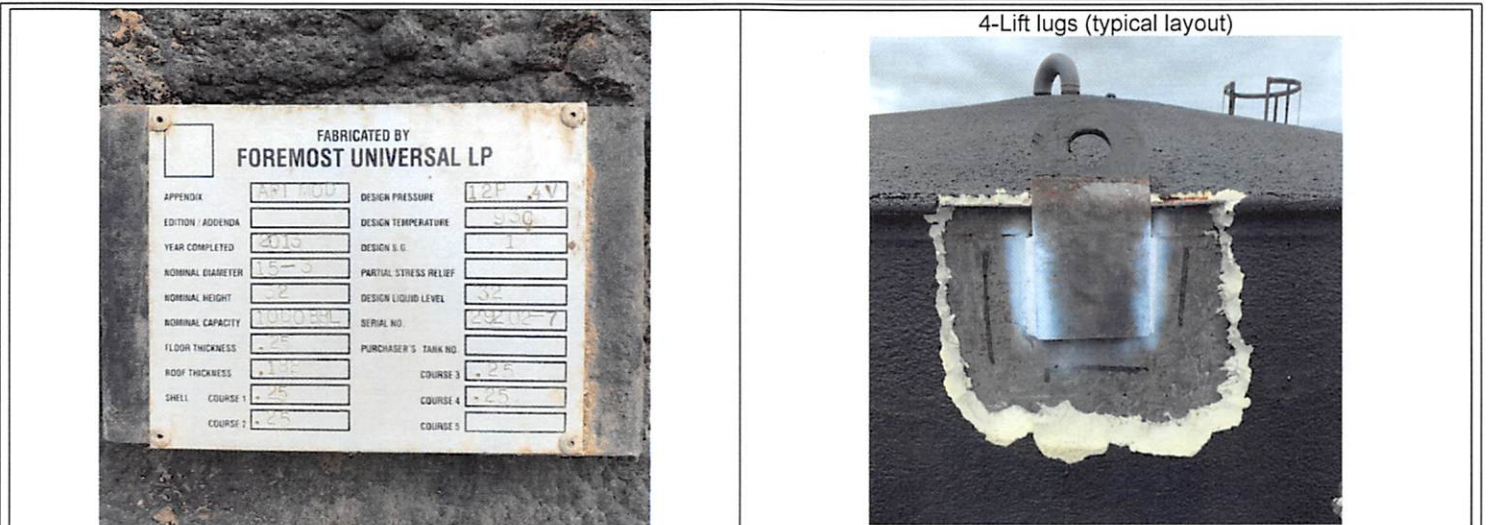
Magnetic Particles: Dry <input type="checkbox"/> Wet <input checked="" type="checkbox"/>	Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/>
Batch #: 65100178	Expiry Date: 2022-Aug-06 Manufacture: ARDROX Type: 8032

<input checked="" type="checkbox"/> Background
Batch #: 65080619 Expiry Date: 2022-Mar-28 Manufacture: ARDROX Type: 8901W

<input type="checkbox"/> Blacklight (N/A)
Asset #: Blacklight meter: Asset #: Cal Due Date:


<input checked="" type="checkbox"/> Whitelight
Lighting Equipment: Yoke Light (10W) Verification per ASME V Art 7 T-777.1

Inspection Scope: To perform wet black on white magnetic particle examination on tank lifting lugs



Results: No indications noted at time of examination. Acceptable to code

Inspection Limitations: N/A

Unit#: 1194 Kilometers: _____ In: _____ Out: _____ Hrs: _____ In: _____ Out: _____ Hrs: _____ Personnel: Logan Skinner Jordan Ross	Consumables: Min	Interpretation by: Logan Skinner SNT-TC-1A: 2 (Print)  C.G.S.B.: 2 (Sign) (Level) C.G.S.B. #: 17159 Client Representative: _____ (Print) I am in full agreement with report contents (Sign)
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ULTRASONIC INSPECTION REPORT

CA1213-UT1-313

Page 1 of 2

Procedure: 4.2	Rev: 4.0	Client: HUSKY OIL OPERATIONS LIMITED	Date: 2020-Aug-24
Technique: Thickness 0 Deg.		IRISNDT #: LYN2000791	Job #:
Code/Standard: Customer Information		Location: BSM Tank Yard	PO #: 8401456505
Other:		Item Inspected: Tank Shell near Lift lugs	APPR# 2Z-2023391

Material Type: Carbon Steel	Surface Condition: Other	Heat Treatment: Not Applicable
Equipment: UT thickness gauge	S/N #: GOPLS18080030	Model: DMSG0+ Asset #: 30199 Calibration Due Date: 2020-Nov-01

Calibration Block: Step Wedge	Asset #: 33723	Probe(s): S/N 1098645			
Sweep range Cal:	Asset #:	Angle	0		
Cable & Type: Coaxial / Potted - Dual Lemo (P-DL)	Length: 4'	Frequency (MHz)	5.0		
Scanning Surface: <input checked="" type="checkbox"/> OD <input type="checkbox"/> ID <input type="checkbox"/> Other		Crystal Size	0.375"		

Dis. AMPL. Calibration: .500"-1.000"	Couplant: Echogel 20	Batch #: 18C023
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Transfer Loss Calibration: <input type="checkbox"/> Direct Comparison <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Other	TL: db
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Reference Flaw Size: Backwall	Primary Reference Level: 100%	Reference Gain: 63 db
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<input checked="" type="checkbox"/> Lamination <input type="checkbox"/> Shear Wave <input type="checkbox"/> Volumetric <input type="checkbox"/> Thickness	Scan Methods: <input checked="" type="checkbox"/> Contact <input type="checkbox"/> Other
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Surface Temp (C°): > 5°C / 41°F & < 60°C / 140°F

UT thickness examination was carried out as requested on the external shell beside each lifting lugs of the following tank. Lug #1 is above the vault continuing towards the door. 3 sides of each lug scanned with the minimum value recorded for each.

Nominal: 0.250"

Results:

Lug#	Area 1	Area 2	Area 3
1	0.250	0.246	0.251
2	0.251	0.249	0.249
3	0.248	0.247	0.249
4	0.247	0.250	0.251

All values in inches

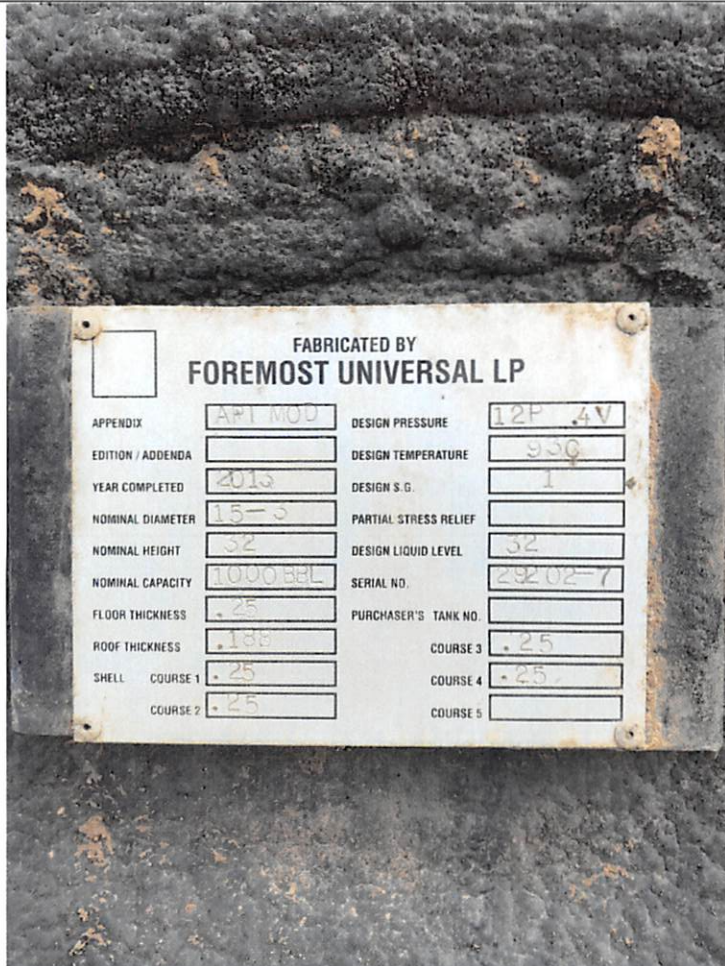
Inspection Limitation(s):

Unit#: 1194	Kilometers:	Consumables:	Interpretation by:
In:	Out:	Min	Logan Skinner
In:	Out:	Requested By: Mike Petryshen	(Print)
		Approver: Elton Zhou	(Sign)
Personnel:			Client Representative:
Logan Skinner			(Print)
Jordan Ross			I am in full agreement with report contents
			(Sign)

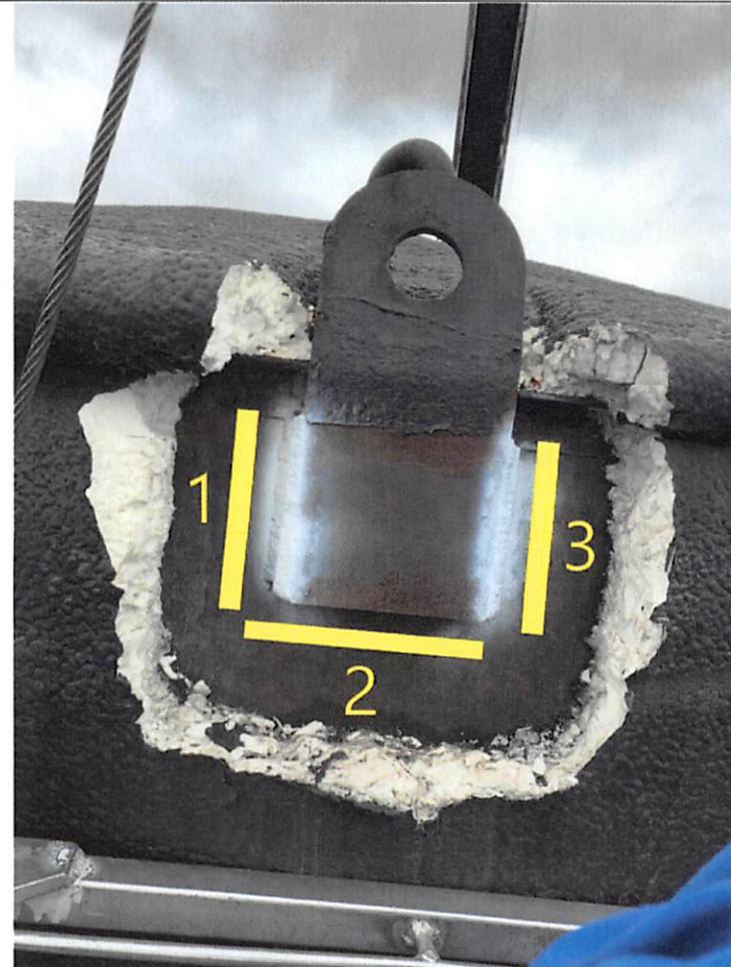
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Name Plate



Typical layout & UT areas

IRISNDT #: LYN2000791

Date: 2020-Aug-24

Client: HUSKY OIL OPERATIONS LIMITED

Logan Skinner

(Print)

(Sign)

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