





Vessel Static Data:

Name:	Produced Water Storage Tank
A#:	N/A
Serial Number:	08-106-2
CRN:	N/A
LSD:	06-16-047-13 W5M
Location:	North Blackstone
CA:	N/A
Size:	3657.60mm OD
MAWP:	N/A
Temp:	N/A
Head Material:	SA-36
Head Nominal:	4.76mm
Shell Material:	SA-36
Shell Nominal:	4.76mm
Year Built:	2009
Manufacturer:	G.L.M. Industries
Tag#:	06-16BRA-1906

Notes:	*Shell not accessible due to insulation.
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G.L.M. INDUSTRIES L.P.

API ☒ 12F ED. ☒ III ADD. ☐ APP. ☒ MOD. ☒ X

SERIAL No. **08-106-12** YEAR **2009**

OWNER TAG NO. **12**

SERVICE **DW WATER STORAGE TANK**

NOM DIA	12.0	FT.	BTM THK	1/4	IN.
NOM HT	20.0	FT.	BTM TYPE	FLAT	
NOM CAP	400	BBL	ROOF THK	3/16	IN.
DES. PRES.	16.0	PSI	P.W.H.T.	NO	
DES. S.G.	1.0		DES. LIQ. LVL.	20.0	FT.
MDMT	11	F	MAX TEMP		

SHELL THICKNESS **3/16 IN.** MATERIAL **A-36 OR EQ.**

08-16BRA-1404



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

Report No.: 9876

Survey Date: 07/22/2016

LSD: 06-16-047-13W5 Dwg: 68 Vessel Number: Manufacturer: G.L.M INDUSTRIES Technician: D. TUCKER
Downhole LSD: Vessel Name: PRODUCED WATER STORAGE TANK Serial Number: 08-106-2 Certification: CGSB / SNT-TC-1A UT I #17016
District Unit: NORTH BLACKSTONE Year Built: 2009 Shell MAWP KPA: 0 MAWT C: 0
Location: FIELD Tag Number: 06-16BRA-1906 Tube MAWP KPA: 0 MAWT C: 0
Unit Name: ERP HOLD CRN: Vessel CA: 0.0000

							Next Inspection	Nominal	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date
Band	Description		Baseline		Previous	Current		Material	CA			
00	Nozzle	Ref	2016	6.4520		2016	6.4520	2017	6.0200			
Shape	360° Circ	Min		5.6390			5.6390	SA 106 - B	0.7525			
OD	114.3	Avg		6.2990			6.2990					
Spec.	VIII Div 1							Comments:				
05	Nozzle	Ref	2016	6.5020		2016	6.5020	2017	6.0200			
Shape	360° Circ	Min		5.7660			5.7660	SA 106 - B	0.7525			
OD	114.3	Avg		6.0960			6.0960					
Spec.	VIII Div 1							Comments:				

DATE:

July 22nd / 2016

TECHNICIAN:

Dusty Tucker

ASSISTANT:

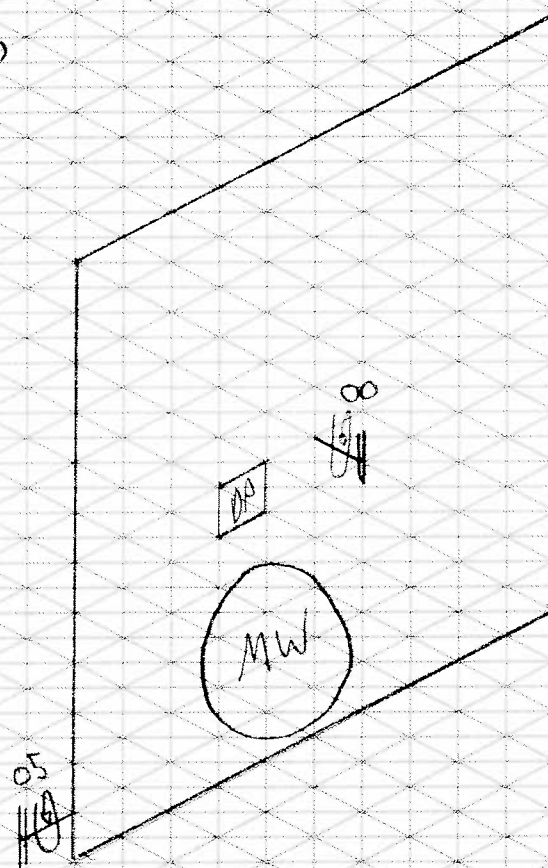
Bill Nash

Client Husky		LSD 6-16-47-13 WS		Item Band Location Head	Shell	00	05						
Equipment Produced Water Storage Tank		Serial # / Manufacturer 08-106-2		Material A-36 EQ	A-36 EQ	4/5	4/5						
CRN /	A# /	# 06-16 BRA-1406	Year Built 2009	OUTSIDE Diameter 12'	12'	4.5"	4.5"						
DWG 68	Survey	Plant or Field (Circle) North Blackstone	PSIG / KPA /	F / C /	CA /	Type 6	RP	5	5				
				Comment /	/	/	/						
				Nominal Thickness 3/16	3/16	A 237	A 237						

G.L.M Industries L.P

DT: 5017-SOZO

*Shell not accessible
Due to Insulation



COMMENTS

- 1) Cryogenic Service
- 2) Insulated
- 3) No Name Plate
- 4) Name Plate Illegible
- 5) No Access
- 6) Too Hot
- 7) Rough Surface
- 8) O.D. Pitting
- 9) I.D. Pitting
- 10) Pipe / Plate (Circle One)

Piping Types

1. 90° Nozzle	6. 360° Circ Pipe
2. 90° Pipe	7. Tee Nozzle
3. 45° Nozzle	8. Tee Pipe
4. 45° Pipe	9. Straight Nozzle
5. 360° Circ Nozzle	10. Straight Pipe

Head Types

1 ellipsoidal	5 toriconical
2 torispherical	6 flat
3 spherical	7 hemispherical
4 conical	

Common Materials

A 53-B	C 516-70
B 106-B	D 234-WPB

Ensure all information is recorded for vessel boots, when applicable.



PRESSURE VESSEL & COLUMN INSPECTION REPORT

Date: July 22/2016 Equipment ID: 06-16BRA-1906

Plant	Asset #	Op Unit	Equipment ID	System	Asset Type
			<u>06-16BRA-1906</u>		
Description	<u>Produced H₂O Storage</u>			Prov. Insp. #	Serial #
Manufacturer	<u>G.L.M. Industries</u>			CRN	Year Built
MAWP	KPag	@	°C	MDMT	°C
Code	Fluid Service	Sweet/Sour	PWHT	Internal Coating	
Internal Access	Insulated	<u>yes</u>	Operating Temp	°C	
Operating Pressure	KPag				

PSV DATA

PSV ID #	Location	Inlet	Size	Set	Capacity	Manufacturer	Model	Last
			Outlet	Pressure	SCFM / Lbs/Hr / GPM			Service

INSPECTION SUMMARY

UT, VE performed no associated PSV

RECOMMENDATIONS

NONCONFORMANCES / INSPECTION DEFICIENCIES

INSPECTION PLANNING

Inspection Strategy	Availability	Inspection Interval
Inspection Date	Date of Last Inspect	Date of Next Inspect

REPORT CERTIFICATION

The signatures below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.

Inspected by <u>Dusty Tucker</u>	<u>[Signature]</u>	Date <u>July 22/2016</u>
Reviewed and Approved by		Date
Criticality Assessment Rerun	Inspection Planning Rerun	
Assessed Next Inspection Date		

PRESSURE VESSEL & COLUMN INSPECTION REPORT

Date:

Equipment ID:

DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition			Location	NCR	Comments
		N/A	No	Good			
V1	General Other (Please Explain)			✓			
V2	General Corrosion						
V3	General Leaks						
V4	Vibration						
V5	Dissimilar Flange Rating						
V6	Ladder/Stairway						
V7	Heads						
V8	Guy Wires						
V9	Electrical Ground						
V10	Painted Inactive Corrosion						
V11	Coating/Painting						
V12	Expansion Joint or Bellows						
V13	Gauge/Site Glass						
V14	Shell						
V15	Jacket						
V21	Support Other (Please explain)						
V22	Foundation						
V23	Anchor Bolts						
V24	Saddle/Skirt						
V25	Davit						
V26	Fireproofing						
V31	Connections Other (Please explain)						
V32	Small Branches						
V33	Nozzles						
V34	Manways						
V35	Reinforcing Pads						
V36	Inadequate Thread Engagement						
V37	Bolting						
V38	Flanges						
V39	Leak Clamps						
V41	Insulation Other (Please explain)						
V42	Damage						
V43	Penetrations						
V44	Insulation Jacket						
V45	Banding						
V46	Seals/Joints						
V51	Relief Devices Other (Please explain)						
V52	Corrosion						
V53	Leaks						
V54	Restricted Inlet/Outlet						
V55	Manual Operation Lever						



G.L.M. INDUSTRIES L.P.

API 12F ED. 11 ADD. APP. MOD. X

SERIAL No. 08-106-2 YEAR 2009

OWNER TAG NO.

SERVICE DW WATER STORAGE TANK

NOM DIA 12.0 FT. BTM THK 1/4 IN.

NOM HT 20.0 FT. BTM TYPE FLAT

NOM CAP 400 BBL ROOF THK 3/16 IN.

DES. PRES. 16.0 OZ. P.W.H.T. NO

DES. S.G. 1.0 DES. LIQ. LVL. 20.0 FT.

MDMT 11 F MAX TEMP

SHELL THICKNESS

3/16 IN.

MATERIAL

A-36 OR EQ.

06-162RA-1A0A



