

# Storage Tank Inspection Report



<b>Plant</b>	Heavy Oil & Gas	<b>Op Unit</b>	L7-05-009 Marsden	<b>System</b>	00048 111/05-03-045-27W3/00 SWB
<b>Asset Num</b>	62038220	<b>Equip Id</b>	62038220	<b>Asset Type</b>	Storage Tank
<b>Description</b>	TANK, UNIVERSAL 160M3	<b>Prov #</b>		<b>Serial #</b>	02-04-05-11712
<b>Manuf.</b>	UNIVERSAL	<b>CRN</b>		<b>Year Built</b>	2002
<b>Const Code</b>		<b>Int.Access</b>		<b>Sweet/Sour</b>	

## COMPONENT DATA

<b>Comp Type:</b>	Storage Tank Shell			<b>Fluid Service</b>	C17-25 (Gas Oil)
<b>Insulated</b>				<b>Internal Coating</b>	
<b>MAWP</b>	0 kPa	@	149 °C	<b>MDMT</b>	-12 °C
<b>Oper. Press.</b>	0 kPa	<b>Oper. Temp</b>	0 °C	<b>PWHT</b>	0

<b>Comp Type:</b>	Bottom			<b>Fluid Service</b>	C17-25 (Gas Oil)
<b>Insulated</b>				<b>Internal Coating</b>	
<b>MAWP</b>	0 kPa	@	149 °C	<b>MDMT</b>	-12 °C
<b>Oper. Press.</b>	0 kPa	<b>Oper. Temp</b>	0 °C	<b>PWHT</b>	0

<b>Comp Type:</b>	Roof			<b>Fluid Service</b>	C17-25 (Gas Oil)
<b>Insulated</b>				<b>Internal Coating</b>	
<b>MAWP</b>	0 kPa	@	149 °C	<b>MDMT</b>	-12 °C
<b>Oper. Press.</b>	0 kPa	<b>Oper. Temp</b>	0 °C	<b>PWHT</b>	0

<b>Inspection Date</b>	09/03/2012
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Inspection Type	VIExt	Inspected By	Marie Lafontaine
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## Summary

[illegible]

## DETAILED VISUAL INSPECTION

Inspection Type		VIExt	Inspection Date	09/03/2012	Equip Id	62038220
ID	Description	Condition	Location	NCR	Comments	
T14	Secondary Containment	Fair			Liner and lease containment	
T15	Shell	Fair			Acceptable	
T16	Roof	Fair			Acceptable	
T32	Foundation	Fair			Gravel pad	
T41	Connections Other (Please explain)	Fair			Piping is aligned and secure. The crossover repad weep hole has been welded closed.	
T44	Pipe Manifolds	Fair			Envirovault fully welded around	
T6	Ladder/Stairway	Poor			Numerous bolts hand-loose	
T61	Insulation Other (Please explain)	Fair			Cattle has eaten the lower 5ft	
T7	Platform	Fair			Acceptable	
T8	Electrical Ground	No				

Inspection Type	VIIInt	Inspected By	Marie Lafontaine
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### Summary

Overall the tank was found to be in fair condition. A new firetube and minor weld repairs are required prior to recommissioning.

#### Recommendations:

- Tighten all ladder bolting
- Grind out corner of crossover repad to allow for venting
- Repair burner leg of the firetube or replace
- Replace the sch 40 stinger nozzle with sch 80
- Brace the 3" riser in the vault, another 3" riser on the production inlet side, and the 8" riser on the crossover to the shell

cc: Kim Bertoia

### DETAILED VISUAL INSPECTION

Inspection Type VIInt

Inspection Date 09/03/2012

Equip Id 62038220

ID	Description	Condition	Location	NCR	Comments
T11	Floor	Fair			Lapped construction. Random areas of the floor were UT thickness tested with moderate metal loss identified. The lowest thickness found was 0.192 in. See attached sketch for UT survey and approximate locations of tests.
V10	Roof	Fair			Acceptable
V28	Internal steam coil or other piping	Poor			Firetube - numerous areas are depressed, tube full of debris, flange not leaking
V7	Welds	Fair			No backwelding required
V8	Nozzles	Fair			Sch 40 stinger out of vault, risers not braced: 3" riser in the vault, 3" riser on the production inlet side, 8" riser on the crossover
V9	Shell	Fair			Random areas of the lower shell were UT thickness tested with minor metal loss identified. The lowest thickness found was 0.230 in. See attached sketch for UT survey and approximate locations of tests.

### 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>MARIE LAFONTAINE</u>	Date	<u>2012-03-13</u>
Reviewed and Approved By	<u>Ray Trachsel</u>	Date	<u>2012-03-13</u>
Criticality Assessment Rerun		Inspection Planning Rerun	
Assessed Next Inspection Date	<u>2017-03-09</u>		

Equipment #: 62038220  
Area: SW Marsden  
Cost Centre: 17322

Contact: Greg Blain  
205-5114



## Tank Inspection Report

Approver: \_\_\_\_\_ Approver #: \_\_\_\_\_ WO#: \_\_\_\_\_  
Requisitioned By: KIM BERTOIA Location: 5-3-45-21W3 PO# \_\_\_\_\_  
Manufacturer: UNIVERSAL Serial #: 02-04-05-11712 Tank Type: PROD  
Capacity: 1000 BBL Thickness: Floor 1/4" Shell 1/4" + 3/16" Year Built: 2002

### External Inspection

T61	Insulation	GOOD	<u>FAIR</u>	POOR	<u>cattle has eaten lower 5ft</u>
T64	Cladding	<del>GOOD</del>	<u>FAIR</u>	<del>POOR</del>	<u>n/a</u>
T32	Base / Landscaping	GOOD	<u>FAIR</u>	POOR	<u>gravel pad</u>
T14	<u>Liner</u> Containment	GOOD	<u>FAIR</u>	POOR	
T8	Ground Cable		<u>YES</u>	<u>NO</u>	
T6	Ladder/ Stairway	GOOD	<u>FAIR</u>	POOR	<u>numerous bolts hand-loose</u>
T7	Platform	GOOD	<u>FAIR</u>	POOR	
T41	Piping Alignment	GOOD	<u>FAIR</u>	POOR	<u>crossover weep hole welded closed</u>
T15	Shell	GOOD	<u>FAIR</u>	POOR	
T44	Envirovault		<u>YES</u>	<u>NO</u>	
T16	Roof	GOOD	<u>FAIR</u>	POOR	
T11	Paint	GOOD	<u>FAIR</u>	POOR	

### Internal Inspection

T11	Floor	GOOD	<u>FAIR</u>	POOR	<u>lapped coast</u>
V9	Shell	GOOD	<u>FAIR</u>	POOR	
V10	Roof	GOOD	<u>FAIR</u>	POOR	
V28	Firetube	GOOD	FAIR	<u>POOR</u>	INTERNAL: GOOD <u>BOWED</u> OVALLED FLANGE LEAKING: YES <u>NO</u> <u>numerous collapsing sections, full of debris</u>
V8	Nozzles	GOOD	<u>FAIR</u>	POOR	<u>replace stinger - Sch80</u>
V7	Welds	GOOD	<u>FAIR</u>	POOR	BACKWELDING REQ'D: YES <u>NO</u>
V21	Anodes	<del>GOOD</del>	<del>FAIR</del>	<del>POOR</del>	<u>n/a</u>
V27	Coating	GOOD	FAIR	POOR	<u>TYPE n/a</u>

### Notes & Summary of Recommendations:

@ 2006 Insp: - Shortbolting in vault  
- lowest t = 0.242 in

- tighten all ladder bolting
- grind out corner of crossover repair
- repair or replace firetube
- replace stinger Sch80
- brace riser in vault, 3" riser + 8" riser
- float wires

Inspection Interval: 5 yr

Entered in RBMI: ☐

Approvals  
Inspector  
Husky Inspector

Name

MARIE LAFONTAINE

Signature

[Signature]

Date

2012-03-08