

PRESSURE VESSEL & COLUMN INSPECTION REPORT

Date: July 8 , 2013

Equipment ID: SN **96238**

☐ FH-BC-001 Sinclair / ☐ FH-BC-002 Valhalla / ☐ FH-BC-003 Wapiti / ☐ FH-BC-004 Kiskui / ☐ FH-BC-005 Mulligan / ☐ FH-BC-006 Copton, Lynx / ☐ FH-BC-007 Kakwa / ☐ FH-BC-008 Inga / ☐ FH-BC-009 NEBC

LSD:4-16-60-22W5				Prov. Insp. # 405117		Serial # 96238	
Description#		Sand Separator			Year Built 1996		PWHT: YES
Manufacturer		Macrotech Spec Inc.			CRN N-2711.2		Code: B51
MAWP		2100	PSI @ 150		°F	MDMT -20	°F
Insulated		NO					
Internal Access		YES		Fluid Service		Sweet	
				<input type="checkbox"/> Sweet <input type="checkbox"/> Sour		Internal Coating	
						NONE	
Operating Pressure				KPag		Operating Temp	
						°C	

PSV #1 DATA & EXTERNAL INSPECTION

Service Company	N/A	Are there any valves, pumps, or equipment that is able to isolate the PSV from the vessel?	N/A
Company Tag #	Tag #: N/A		
Set Pressure	N/A	Are there any reducers or flow restrictions on the discharge of the PSV?	N/A
Location	N/A	Is the set pressure lower than the MAWP of the equipment?	N/A
Size	In: Out:	Is the PSV installed properly? (Check if its upright, check nuts/bolts, check gaskets)	N/A
Capacity	N/A	Is the PSV vented safely?	N/A
Manufacturer	N/A	If there is a vent hole is the vent open or plugged?	N/A
Model #	N/A	Is there an opportunity for liquid collection on the outlet side of PSV?	N/A
Last Service	N/A	Are the seals intact?	N/A
		Is there apparent damage to the body of the PSV?	N/A
		Does the PSV show valid CRN registration?	N/A
		Does the valve nameplate have a UV stamp on it?	N/A
		SOUR ONLY: Has the PSV been serviced within the last 4 yrs?	
		SWEET ONLY: Has the PSV been serviced within the last 5 yrs?	N/A

INSPECTION SUMMARY

The vessel was located outside of any building, and was out of service at time of inspection, with piping blinded and separated from any flow. The nameplate was legible and securely attached. The exterior was fully painted, and the paint was in serviceable condition. The heads and shell appeared to be in serviceable condition. The vessel was adequately supported and there were no structural or installation concerns. There was no PSV present at time of inspection, so MAWP and service data could not be verified.

Without a PSV this vessel is not fit for service.

RECOMMENDATIONS

Install PSV and verify set point and service date prior to operation of the vessel.

NONCONFORMANCES / INSPECTION DEFICIENCIES

None noted on this piece of equipment, during this visual external inspection.

Visual Inspectors Initials: KLM

Husky Lead Inspectors Initials: _____

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VISUAL EXTERNAL INSPECTION PLANNING

Inspection Strategy	<input type="checkbox"/> Time Based	Availability	<input type="checkbox"/> Online	Inspection Interval	
	<input type="checkbox"/> Risk Based		<input type="checkbox"/> Offline <input type="checkbox"/> Shutdown		
Date of Last Inspection		Current Inspection Date		Date of Next Inspection	

VISUAL INTERNAL INSPECTION PLANNING

Inspection Strategy	<input type="checkbox"/> Time Based	Availability	<input type="checkbox"/> Shutdown	Inspection Interval	
	<input type="checkbox"/> Risk Based				
Date of Last Inspection		Current Inspection Date		Date of Next Inspection	

UT EXTERNAL CORROSION SURVEY INSPECTION PLANNING

Inspection Strategy	<input type="checkbox"/> Time Based	Availability	<input type="checkbox"/> Online	Inspection Interval	
	<input type="checkbox"/> Risk Based		<input type="checkbox"/> Offline <input type="checkbox"/> Shutdown		
Date of Last Inspection		Current Inspection Date		Date of Next Inspection	

OTHER NDE:

INSPECTION PLANNING

Inspection Strategy	<input type="checkbox"/> Time Based	Availability	<input type="checkbox"/> Online	Inspection Interval	
	<input type="checkbox"/> Risk Based		<input type="checkbox"/> Offline <input type="checkbox"/> Shutdown		
Date of Last Inspection		Current Inspection Date		Date of Next Inspection	

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	Ken McNeil	Sign			Date (D/M/Y)	July 8, 2013
Company	RAE Eng. and Inspection Ltd.	PESL Cert#	000579	And / or	API Cert #	API 510 Cert #39628
Reviewed and Approved by	Print Name	Sign			PESL Cert #	

DETAILED INSPECTION VISUAL INTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)				
V2	Corrosion (depth, length, width)				
V3	Erosion				
V4	Distortion				
V5	Blisters				
V6	Deposits				
V7	Heads				
V8	Welds				
V9	Nozzles				
V10	Shell				
V11	Gasket Surfaces				
V21	Internals Other (Please explain)				
V22	Demister				
V23	Baffle/Wier				
V24	Sparger				
V25	Thermowells				
V26	Metallic Linings				
V27	Nonmetallic Linings				
V28	Trays				

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V29	Tray Rings				
V30	Other Welded Attachments				

DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
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				

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OTHER TECHNIQUES**

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**DETAILED INSPECTION
UT THICKNESS**

CML	Nom. Thk	Current Reading	Short Term Corr Rate	Long Term Corr Rate	Remaining Life	Comments

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PHOTOS

Required Photos: LSD sign, Building, Vessel, Dataplate, PSV, PSV Service tag or Dataplate if missing and any NCR/IDR's.
Attach full size pictures below.



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