

**Canadian Natural Resources Ltd.  
GENERAL PRESSURE VESSEL INFORMATION**

**Job# 105.00390**

<b>District: Ft St John, B.C.</b>	<b>Skid No.</b>
<b>Facility: Ladyfern Compressor</b>	<b>Location (LSD): b-17-I/94-H-01</b>
<b>Vessel Name Equipment Number: Glycol Reboiler</b>	
<b>Orientation: Horizontal</b>	
<b>Status: In Service</b>	<b>Regulatory Inspection</b>

**PRESSURE VESSEL NAMEPLATE DATA**

"A" or "G" or "S" (Sask.) or BC Registration Number. <b>RAE# 2966</b>		CRN Number: <b>Non-code</b>	
Vessel serial number: <b>Not Ser</b>		Size: <b>36" X 132"</b>	
Shell thickness: <b>N/S</b>		Shell material: <b>N/S</b>	
Head thickness: <b>N/S</b>		Head material: <b>N/S</b>	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: <b>Atmospheric</b>	Operating pressure	Shell: <b>No gauge</b>
	Tubes:		Tubes:
Design Temp.	Shell: <b>Not stated</b>	Operating temperature	Shell: <b>350 deg F</b>
	Tubes:		Tubes:
X-ray: <b>N/S</b>		Heat treatment: <b>N/S</b>	
Code parameters: <b>Non-code vessel</b>		Coated: <b>No</b>	
Manufacturer: <b>Wells Hall</b>		Year built: <b>2001</b>	
Corrosion allowance: <b>N/S</b>		Manway: <b>No</b>	

**PRESSURE SAFETY VALVE NAMEPLATE DATA**

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (PSI)	Capacity (scfm)	Service Date
<b>15507F</b>	<b>Knuckle</b>	<b>6030HGM01-PMO</b>	<b>28213-1</b>	<b>69 Kpa</b>	<b>1083</b>	<b>06-2009</b>
CRN #	Service By	Block Valve	Location	Size	Code Stamp	
<b>N/S</b>	<b>Unified</b>	<b>No</b>	<b>Top shell</b>	<b>1"X1"</b>	<b>None code valve</b>	

**SERVICE CONDITIONS-INDICATE ALL THAT APPLY**

Sweet <b>X</b>	Sour	Oil	Gas	Water <b>X</b>
Amine	LPG	Condensate	Air	Glycol <b>X</b>

Other (Describe):

**Inspection Interval** \_\_\_\_\_ **PSV Service Interval** \_\_\_\_\_

(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL's Owner-User Inspection Program)

Reports reviewed and accepted by:

**Mechanical Integrity Coordinator** \_\_\_\_\_ **Date** \_\_\_\_\_

Fill out all forms as completely as possible. All information is important! Use back of sheets to record additional information or sketch if required.  
Copy of report to be filed by MIC at site, and copy sent to Chief Inspector

<b>External Inspection Items</b>	G	F	P	N/A	<b>Comments</b>
<b>Insulation</b> Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.	X				<b>The Reboiler is fully insulated &amp; in good condition - no loose bands or open sections - no visible signs of moisture egress.</b>
<b>External Condition</b> Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				<b>Paint on the accumulator is in fair overall condition, Chipped with exposed metal to less than 5% - pitting to less than 0.005" deep.</b>
<b>Leakage</b> Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				<b>No leaking detected.</b>
<b>Saddle</b> Assess condition of paint, fire protection, and concrete. Look for corrosion, buckling, dents, etc. Look at vessel surface area near supports. Verify no signs of leakage at attachment to vessel and attachment welds are acceptable. Ground wire attached?	X				<b>Saddle mostly covered by insulation. No visible corrosion – no missing paint. Ground cable firmly secured to Skid unit.</b>
<b>Anchor Bolts</b> Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				<b>The Reboiler / Accumulator are firmly anchored to skid.</b>
<b>Concrete foundation</b> Check for cracks, spalling, etc.				X	<b>None.</b>
<b>Ladder / Platform</b> Describe general condition, ensure support is secure to vessel, and describe any hazards.	X				<b>Stairs &amp; platform is firmly secured, no loose or missing grating sections - paint is in good condition.</b>
<b>Nozzle</b> Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				<b>All threads connections fully engaged. No deflection – no leaks. No gussets.</b>
<b>Gauges</b> Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				<b>Gauge is visible, appears to be functional, no leaks and suitable for range of Temp. No Pressure gauge. Temperature gauge 50-500 deg F @ 350 deg F.</b>
<b>External Piping</b> Ensure pipe is well supported. All clamps, supports, shoes, etc. in place. Look for evidence of structural overload, deflection, etc. Paint condition, external corrosion?	X				<b>Well supported – no deflection – all clamps and shoes in place. Piping is painted and in good condition – no surface corrosion found.</b>
<b>Valving</b> Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				<b>Well supported – no leaks.</b>
<b>PSV</b> Ensure PSV is set at pressure at or below that of vessel.	X				<b>Located on the Top Shell - set below the Vessels MAWP. Discharge piping is larger than the inlet to PSV. No block valve present. Seal is intact. PSV vents to Atmospheric pop tank.</b>
<b>NDE methods</b> Was UT/ MPI done on vessel (MI coordinator to review results)	X				<b>Ultrasonic thickness survey carried out-no pitting detected – nominal assumed at 9.5 mm..</b>
<b>Other</b>					
<b>Recommendations or corrective actions : Vessel is Fit for Service or describe corrective actions required)</b> (MIC to review corrective actions with Operations, discuss with Chief Inspector where necessary, and get remedial action implemented) <b>Recommendations: 1. Grit blast &amp; repaint the accumulator.</b> <b>Summary:</b> This vessel is in good over all condition, visual external and ultrasonic thickness survey carried out-no pitting detected. <b>Vessel is fit for service.</b>					

Inspected By: Joe Holdstock

Date: June-03-2010.



LSD location



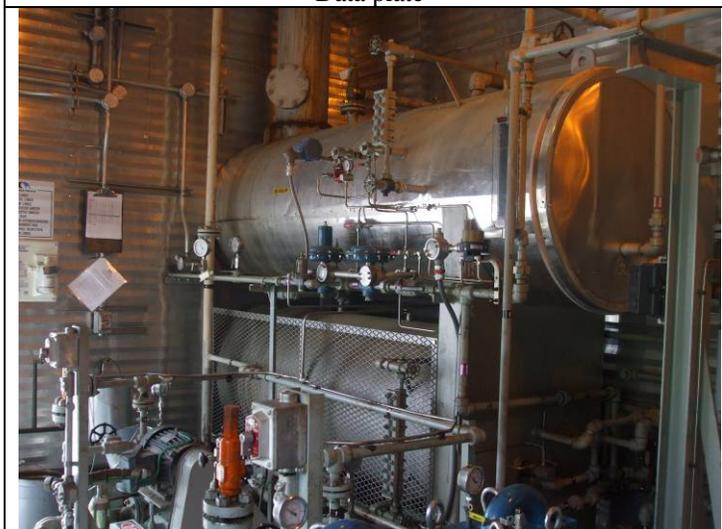
Site overview



Data plate



Overview



Overview



PSV location