Canadian Natural Resources Ltd.
GENERAL PRESSURE VESSEL INFORMATION **Job# 105.00390**

District: **Fort St John, BC**	Skid No.
Facility: Ladyfern Compressor	**Location (LSD): b-17-I/94-H-01**
Vessel Name Equipment Number: Dehy Tower	
Orientation: Vertical	
Status: In Service	**Regulatory Inspection**

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. **RAE# 5237**		CRN Number: **P-5756.21**	
Vessel serial number: **01-C5344-3000B**		Size: **34" X 30'**	
Shell thickness: **50.8mm**		Shell material: **SA-516-70N**	
Head thickness: **45.7mm**		Head material: **SA-516-70N**	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: **14500 Kpa**	Operating pressure	Shell: **7000 Kpa**
	Tubes:		Tubes:
Design Temp.	Shell: **149 deg C**	Operating temperature	Shell: **20 deg C.**
	Tubes:		Tubes:
X-ray: **RT-1**		Heat treatment: **Yes**	
Code parameters: **ASME Sec VIII**		Coated: **No**	
Manufacturer: **Wells Hall Manufacturing Ltd.**		Year built: **2001**	
Corrosion allowance: **N/S**		Manway: **No**	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (PSI)	Capacity (scfm)	Service Date
N/S	**Farris**	**27DA33H-M20**	**433939-1-KE**	**14500 Kpa**	**4683**	**08/2003**
CRN #	Service By	Block Valve	Location	Size	Code Stamp	
0G0386.9C	**Pimms**	**No**	**Inlet piping**	**1"X1"**	**UV/NB**	

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet **X**	Sour	Oil	Gas **X**	Water **X**
Amine	LPG	Condensate	Air	Glycol **X**
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. <u>All information</u> 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

External Inspection Items	G	F	P	N/A	Comments
Insulation Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.				X	**Vessel is not insulated.**
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				**Paint is in good overall condition – No chipped or exposed metal - no previous corrosion.**
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				**No leaking detected.**
Saddle 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				**No distortion to skirt – no leaks at skirt to shell welds.** **No exposed metal – no corrosion.** **Ground cable attached to skid unit.**
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				**Contactor is firmly bolted to skid floor - no signs of deformation.**
Concrete foundation Check for cracks, spalling, etc.				X	**None.**
Ladder / Platform Describe general condition, ensure support is secure to vessel, and describe any hazards.				X	**None.**
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles	X				**All threads connections fully engaged.** **No deflection – no leaks.** **No gussets.**
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				**Gauges are visible, appears to be functional, no leaks and suitable for range of MAWP/Temp.** **Pressure gauge: 0 - 20000 Kpa – 7000 Kpa @ gauge.** **Temperature gauge: -20 – 120 deg C / 20 deg C @ gauge.**
External Piping 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				**Well supported – no deflection – all clamps and shoes in place.** **All piping is painted and in good condition – no exposed metal or surface corrosion found.**
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				**Well supported – no leaks.**
PSV Ensure PSV is set at pressure at or below that of vessel.	X				**Located on the gas inlet piping - set at the Contactors MAWP.** **Discharge piping is the same size as the inlet to PSV.** **No block valve present.** **Seal is intact. PSV vents to Flare.**
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	X				**Ultrasonic thickness survey carried out-no metal thickness detected below nominal minus corrosion allowance.**
Other					

Recommendations or corrective actions : Vessel is Fit for Service or describe corrective actions required)
(MIC to review corrective actions with Operations, discuss with Chief Inspector where necessary, and get remedial action implemented)
Recommendations: 1. This PSV is over due for servicing – last known service was in 2003.
Summary: This vessel is in good over all condition, visual external and ultrasonic thickness survey carried out-no metal thickness detected below nominal minus corrosion allowance.
Vessel is fit for service.

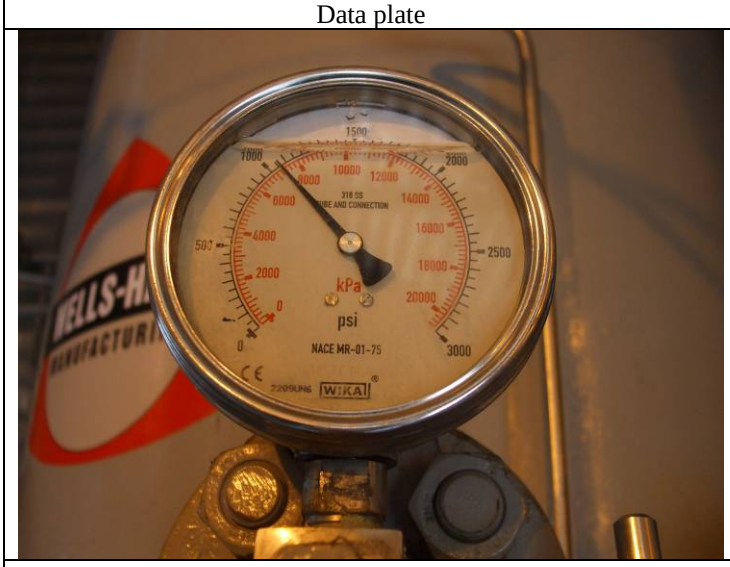
Inspected By: Joseph Holdstock **Date: June-03-2010.**

LSD location

Site overview

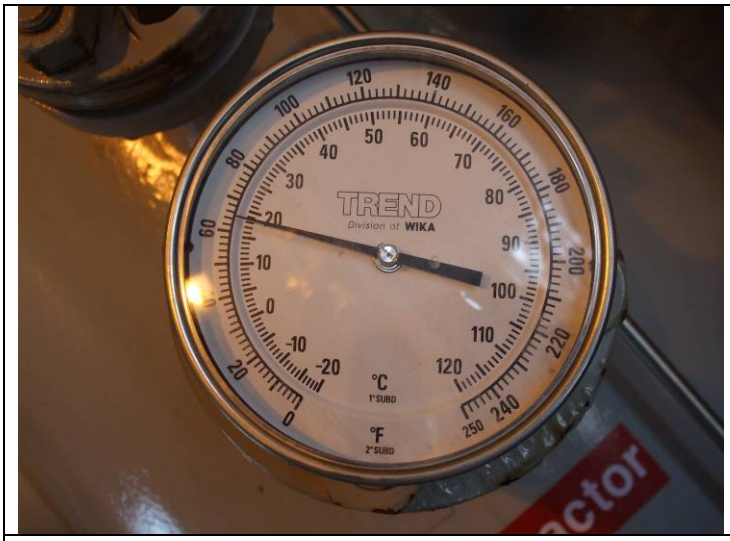
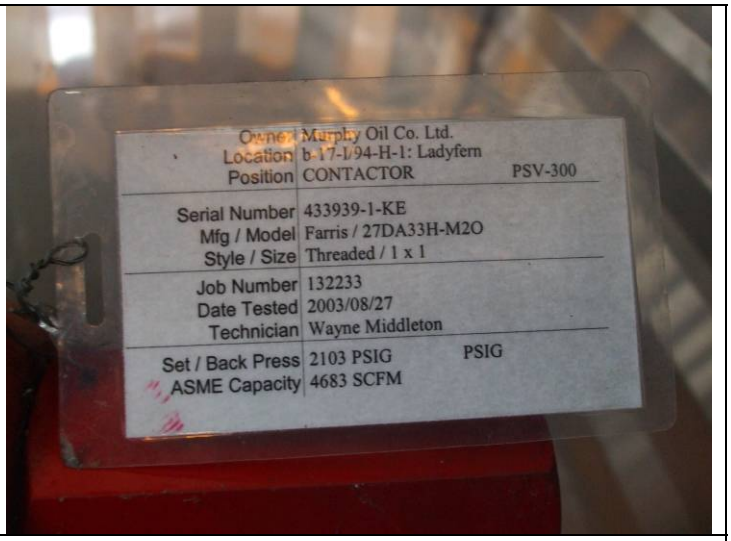
Data plate

Overview



Pressure gauge

Overview

	
Temperature gauge	PSV service tag