

**Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION**

Job # 105.00151

District: Grande Prairie AB.	Skid No.
Facility: Bonanza Compressor Site	Location (LSD): 13-34-81-11W6M
Vessel Name Equipment Number: Glycol Contactor	
Orientation: Vertical	
Status: In Service	Regulatory Inspection

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. A 431782		CRN Number: M-2316.21	
Vessel serial number: 96-8664-4		Size: 24 in. X 30 ft.	
Shell thickness: 28.6mm		Shell material: SA 516-70	
Head thickness: 27.4mm		Head material: SA 516-70	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 1440 PSI	Operating pressure	Shell: 0 – 1500 PSI
	Tubes:		Tubes:
Design Temp.	Shell: 130 Deg. F	Operating temperature	Shell: 0 – 250 Deg F
	Tubes:		Tubes:
X-ray: RT 1		Heat treatment: HT	
Code parameters: ASME VIII, Div 1		Coated: no	
Manufacturer: Wells- Hall Fabrication		Year built: 1997	
Corrosion allowance: not stated		Manway: no	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (kPa)	Capacity (scfm)	Service Date
5501G	Farris	26FA13-120	CE43148-2-A10	1200 PSI	7774	09/2007
CRN #	Service By	Block Valve	Location	Size	Code Stamp	
OG 2369.52	Unified valve	No	Lower shell	1.5"x 2"	UV/NB	

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet <input checked="" type="checkbox"/> X	Sour	Oil	Gas <input checked="" type="checkbox"/> X	Water
Amine	LPG	Condensate	Air	Glycol

Other (Describe):

Inspection Interval _____ **PSV Service Interval** _____

(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL 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

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				No damage present- no egress of moisture. All metal cladding and straps in place and secure -sealed around nozzles.
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				Paint in good overall condition – No exposed metal.
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leaks observed.
Saddle/Skirt Assess condition of paint, fire protection, 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				Skirt: Bolted directly to skid floor. No buckling or dents. No corrosion at attachment welds to vessel. Ground wire attached to skid.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Anchor bolts are securely fastened. No deformation.
Concrete foundation Check for cracks, spalling, etc.				X	
Ladder / Platform Describe general condition, ensure support is secure to vessel, describe any hazards.				X	
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				Stud threads are fully engaged to nuts- no short bolting. No damage or deflections – no leaks. Nozzles are not gusseted.
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Clear and clean – no leakage. Suitable for operational range of vessel. Pressure gauge 0 – 1500 PSI. Temperature gauge 0 – 250 Deg F.
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				Piping is well supported; no deflection, all clamps and supports are in place. Paint in good condition – no exposed metal.
Valve: Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Valves are supported properly – no leaks.
PSV Ensure PSV is set at pressure at or below that of vessel.	X				Located on lower shell of vessel. Set below MAWP of vessel – PSV seal in place. Discharge piping is same size as valve outlet. No block valve between vessel and PSV.
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	X				Ultrasonic thickness survey carried out – shell and pipe metal thickness detected below nominal minus corrosion allowance. Critical thickness calculations carried out to ensure sufficient metal exists for safe operation.
Other					
<p>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: No recommendations at this time. Summary: Vessel is in overall good condition, visual external inspection and ultrasonic corrosion survey performed – shell and pipe metal thickness detected below nominal minus corrosion allowance. Critical thickness calculations carried out to ensure sufficient metal exists for safe operation. Vessel is fit for service.</p>					

Inspected By: Gerry Avery

Date: May 4, 2010

Photo Table



LSD

Vessel data



Vessel temperature gauge

Vessel pressure gauge



PSV data tag

Vessel PSV



Vessel overview



Vessel overview