

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

**Job 10.112837**

District: <b>Fort St. John North</b>	Skid No.
Facility: <b>Chowade Compressor Station</b>	Location (LSD): c-29-L/94-B-09
Vessel Name Equipment Number: <b>Low Pressure Flare Knock Out Drum</b>	
Orientation: <b>Horizontal</b>	
Status: <b>In Service</b>	<b>Regulatory Inspection</b>

**PRESSURE VESSEL NAMEPLATE DATA**

"A" or "G" or "S" (Sask.) or BC Registration Number. <b>C47945</b>		CRN Number: Non code	
Vessel serial number:		Size: 3 ft. x 7 ft.	
Shell thickness: 6.4mm		Shell material: SA 36	
Head thickness: 6.4mm		Head material: SA 36	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell:	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell:	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: Nil		Heat treatment: No	
Code parameters: Non Code		Coated: not stated	
Manufacturer: N/S		Year built: N/S	
Corrosion allowance: N/S		Manway: No	

**PRESSURE SAFETY VALVE NAMEPLATE DATA**

PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)	Capacity (scfm)	Size	Block Valve	Location	Service by Date
N/S	Farris / 27DA33-M20 / 572556-5-KE	14.9 PSI	63	1 x 1	No	Top Shell	Mfg. 08/2010

**SERVICE CONDITIONS-INDICATE ALL THAT APPLY**

Sweet	Sour X	Oil	Gas	Water X
Amine	LPG	Condensate X	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. 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>Vessel not insulated</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 in good overall condition - no corrosion – no damage</b>
<b>Leakage</b> Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				<b>No leaks observed</b>
<b>Saddle/skirt</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 in good overall condition: bolted directly to skid frame – no buckling or dents – no corrosion or leaks at attachment welds – skid sits on wood blocks – no ground wire located</b>
<b>Anchor Bolts</b> Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				<b>Vessel is securely bolted to skid frame – no sign of deformation</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>None</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>Nozzle paint in good condition – all stud threads fully engaged – no leaks – no damage or deflection – nozzles are not gusseted</b>
<b>Gauges</b> Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.				X	<b>No gauges</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>Piping is well supported – all clamps in place – no evidence of structural overload – no deflection – paint in good condition – no corrosion</b>
<b>Valving</b> Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				<b>Valves properly supported – no sign of leaking</b>
<b>PSV</b> Ensure PSV is set at pressure at or below that of vessel.	X				<b>PSV set at MAWP – no block valve – seal is intact – outlet piping is same size as discharge orifice – PSV vents to atmosphere</b>
<b>NDE methods</b> Was UT/ MPI done on vessel (MI coordinator to review results)	X				<b>Ultrasonic corrosion survey carried out – shell metal thickness detected below nominal. Thickness calculations carried out: UT point 3920 (Bottom Shell) – nominal thickness is 6.4mm / min thickness is 4.8mm. Corrosion at Knuckle.</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:</b> No Recommendations at this time. <b>Summary: This vessel is in good condition, visual external and ultrasonic thickness inspection carried out – shell metal thickness detected below nominal minus corrosion allowance.  Vessel is fit for service.</b>					



LSD



Overview



C Tag - No Data Plate



Overview



PSV



PSV data plate