

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

Job # 10.111579

District: Fort St. John BC.	Skid No.
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Facility: Jedney Gas Plant	Location (LSD): a-62-E/94-G-8
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Vessel Name Equipment Number: **Flare Knockout Drum**

Orientation: **Horizontal**

Status: In Service	Regulatory Inspection
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PRESSURE VESSEL NAMEPLATE DATA

“A” or “G” or “S” (Sask.) or BC Registration Number. C 35076	CRN Number: None code
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Vessel serial number: 98-0056	Size: 72 in. x 12 ft.
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Shell thickness: 10.0 mm	Shell material: SA 516 70N
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Head thickness: 9.5 mm	Head material: SA 516 70N
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Tube wall thickness:	Tube material:
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Tube diameter:	Tube length:
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Channel thickness:	Channel material:
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Design pressure	Shell: 14.7 PSI	Operating pressure	Shell:
	Tubes:		Tubes:

Design Temp.	Shell: 100 Deg F	Operating temperature	Shell:
	Tubes:		Tubes:

X-ray: Nil	Heat treatment: Nil
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Code parameters: Non Code	Coated: No
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Manufacturer: Tornado Flare Systems	Year built: 1998
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Corrosion allowance: 1.6 mm	Manway: Yes
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PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (kPa)	Capacity (scfm)	Service Date
Vents to flare – no PSV						

CRN #	Service By	Block Valve	Location	Size	Code Stamp	

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet	Sour X	Oil	Gas X	Water X
Amine	LPG	Condensate X	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. Sealed around nozzles and manway
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)				X	Vessel is not painted.
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				Saddles: welded directly to skid frame – skid frame welded to pilings. No buckling or dents. No corrosion at attachment welds to vessel. Ground wire attached to skid frame.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Welded to pilings
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 leaks observed. No damage or deflections. Nozzles are not gusseted.
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.				X	No gauges on vessel.
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 – all clamps and supports are in place. No structural overloads or deflections. Piping insulated- no damage present – cladding in place and secure.
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				No leaks are visible. Valves are supported properly.
PSV Ensure PSV is set at pressure at or below that of vessel.				X	Vent 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: No recommendations at this time

Summary: Vessel is in overall good condition, visual external inspection and ultrasonic corrosion survey performed— no metal thickness detected below nominal minus corrosion allowance.

Short term corrosion rate based on greatest thickness loss (head) 0.250mm per year. Retirement Date to “T”min is year 2044.

Vessel is fit for service.

Photo Table

<p>LSD</p>	<p>vessel data plate</p>
<p>vessel overview</p>	