Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION **Job # 05.002893**

District: **Fort St. John BC.**	Skid No.
Facility: **Jedney Field**	Location (LSD): **d-B1-L/94-G-8**
Vessel Name Equipment Number: **Flare Knock Out Drum**	
Orientation: **Horizontal**	
Status: **In Service**	**Regulatory Inspection**

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. **A 496010**		CRN Number: **K 2109.125**	
Vessel serial number: 12981		Size: 8 ft. x 10 ft.	
Shell thickness: 9.5 mm		Shell material: SA 516 70N	
Head thickness: 8.0 mm		Head material: SA 516 70N	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 50 psi	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 200 deg F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT-1		Heat treatment: Nil	
Code parameters: ASME VIII, Div 1		Coated: not stated	
Manufacturer: Bilton Manufacturing		Year built: 2003	
Corrosion allowance: 3.2mm		Manway: Yes	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (psi)	Capacity (scfm)	Service Date
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. <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				**Insulation is in good condition.** **Two isolated areas of damage on the inlet head. No exposed metal.**
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				**(Underside)** **Paint in good condition- no exposed metal.** **No external Corrosion**
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				**Saddle: bolted directly to skid frame.** **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				**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				**Gauges are clear and appear functional.** **Within range of the MAWP.**
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 in good condition and well supported.** **No apparent overloads or obviously deformed sections.** **Paint is in good condition.**
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				**No leaks are visible- valves properly supported.**
PSV Ensure PSV is set at pressure at or below that of vessel.				X	**None**
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.

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

Vessel is fit for service.

Inspected By: Keith Kowal (API 510 #26812) **Date:** February 7th, 2009

Photos

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<tr><td>Data Plate</td><td>Vessel Overview</td></tr>
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<tr><td>Truck-out piping is in good condition.</td><td>No underside corrosion.</td></tr>
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<tr><td>Vessel is welded to the pilings.</td><td>Piping is in good condition and well supported.</td></tr>
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