Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION **Job# 10.113336**

District: Grande Prairie AB.	Skid No.
Facility: Clear Hills Gas Gathering	**Location (LSD): 7-12-87-13W6M**
Vessel Name Equipment Number: Separator	
Orientation: Vertical	
Status: Out of Service	**Regulatory Inspection**

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. **A408783**		CRN Number: K9276.21	
Vessel serial number: 00027750		Size: 16 in. X 90 in.	
Shell thickness: 26.19mm		Shell material: SA 106-B	
Head thickness: 20.96mm		Head material: SA 516-70N	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 1440 PSI	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 100 Deg F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT 2		Heat treatment: Nil	
Code parameters: ASME VIII, Div 1		Coated: no	
Manufacturer: Nusco		Year built: 1997	
Corrosion allowance: 1.6mm		Manway: no	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)	Capacity (scfm)	Size	Block Valve	Location	Service Date
None	NO PSV						

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet X	Sour	Oil	Gas 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'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 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: Welded directly to skid floor.** **Support base welded 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**				**Vessel skirt welded to support base.** **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**	**Piping is disconnected**
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.				**X**	**Gauges removed**
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 removed**
Valve: Ensure no leaks are visible. Valves are properly supported and chained if necessary.				**X**	**No valves**
PSV Ensure PSV is set at pressure at or below that of vessel.				**X**	**PSV is removed as vessel is no longer in service.**
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	**X**				**Ultrasonic corrosion 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: This vessel is in good condition, visual external and ultrasonic thickness inspection carried out – no metal thickness detected below nominal minus corrosion allowance.
Corrosion rate based on greatest thickness loss (shell) 0.0mm per year. Retirement Date to "T"min is year 2091.

Vessel is fit for service.

Inspected By: Matt Wood (API 510 # 42758) **Date:** Aug 24th, 2013

Photo Table

LSD

Overview

Data Plate

Base