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Canadian Natural Resources Limited
GENERAL PRESSURE VESSEL INFORMATION

District: **Grande Prairie, AB**	Skid No.
Facility: **Pass Creek Field**	Location (LSD): **03-06-60-19 W5M**
Vessel Name Equipment Number: **Line Heater**	
Orientation: **Horizontal**	
Status: **Not in Service**	Regulatory Inspection

PRESSURE VESSEL NAMEPLATE DATA

"A" or "G" or "S" (Sask.) or BC Registration Number. **A 429576**		CRN Number: **H-9622.12**	
Vessel serial number: 1893 H401-4		Size: 55 in x 20 ft	
Shell thickness: 9.5 mm		Shell material: SA 36	
Head thickness: 9.5 mm		Head material: SA 36	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 9308 kPa	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 93°C	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT-1		Heat treatment: HT	
Code parameters: ASME B 31.3		Coated: No	
Manufacturer: Plains Oil Ltd.		Year built: 1996	
Corrosion allowance: 1.6 mm		Manway: No	

PRESSURE SAFETY VALVE NAMEPLATE DATA

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (kPa)	Capacity (scfm)	Service Date
PSV Removed						
CRN #	Service By	Block Valve	Location	Size	Code Stamp	

SERVICE CONDITIONS-INDICATE ALL THAT APPLY

Sweet X	Sour	Oil	Gas X	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. <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				Line heater is 70% insulated – no open or torn sections.
External Condition Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				Painted sections inside building – good condition – no exposed metal.
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leaks detected.
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: No distortion, buckles or dents. No obvious leaks at saddle to shell area – no stains. Paint is in good condition – no exposed metal. Skid package is grounded.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Firmly bolted to skid deck.
Concrete foundation Check for cracks, spalling, etc.				X	No concrete – vessel sits inside skid and skid is mounted on pilings.
Ladder / Platform Describe general condition, ensure support is secure to vessel, describe any hazards.				X	No ladder or platforms.
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				No deflection – no leaks. All studs fully engaged to threads – no short bolts. Nozzles are not gusseted.
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Pressure gauge: No pressure gauge. Temp gauge: No gauge. Sight glass on accumulator is unobstructed.
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				Well supported, no deflection, all clamps and shoes in place. Paint is in good condition – no exposed metal – no corrosion.
Valving Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				Well supported – no leaks.
PSV Ensure PSV is set at pressure at or below that of vessel.				X	No PSV on this – line heater is out of service.
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	**X**				Ultrasonic thickness survey carried out on piping – no metal thickness detected below nominal minus corrosion allowance.

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: This line heater is in good overall condition, visual external and ultrasonic thickness survey carried out on piping – no metal thickness detected below nominal minus corrosion allowance.
Line heater is fit for service.

Inspected By: Dellas Wiedman **Date**: July 17, 2008

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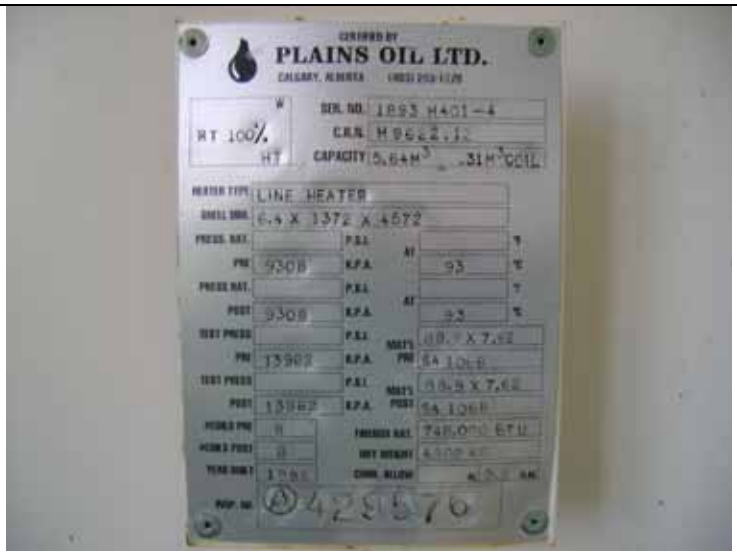
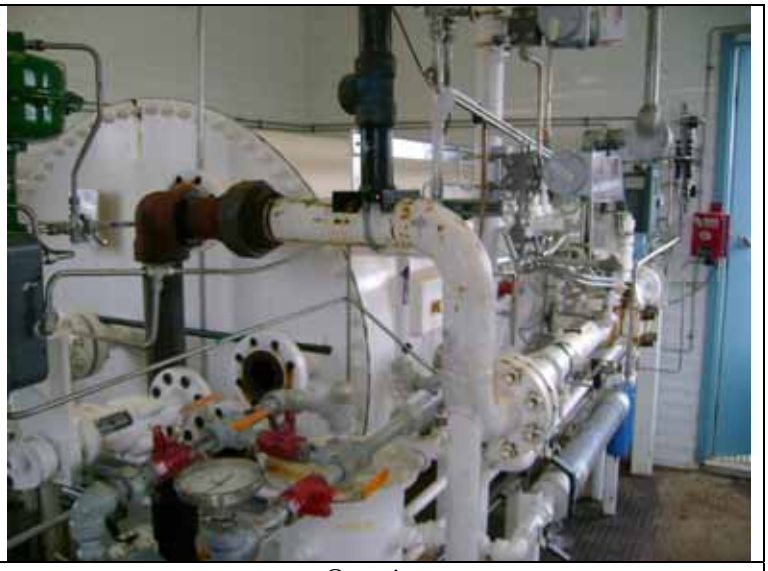


Data Plate



Overview

Over view