

Canadian Natural Resources Ltd.
GENERAL PRESSURE VESSEL INFORMATION

Job# 105.00390

District: Fort St John, BC			Skid No.			
Facility: Ladyfern Compressor			Location (LSD): b-17-I/94-H-01			
Vessel Name Equipment Number: Inlet Separator						
Orientation: Horizontal						
Status: In Service			Regulatory Inspection			
PRESSURE VESSEL NAMEPLATE DATA						
"A" or "G" or "S" (Sask.) or BC Registration Number. RAE# 2959			CRN Number: P-2191.21			
Vessel serial number: 00191-101			Size: 66" X 314"			
Shell thickness: 88.9 mm			Shell material: SA-516-70N			
Head thickness: 82.6 mm			Head material: SA-516-70N			
Tube wall thickness:			Tube material:			
Tube diameter:			Tube length:			
Channel thickness:			Channel material:			
Design pressure	Shell: 13790 Kpa		Operating pressure	Shell: 1379 Kpa		
	Tubes:			Tubes:		
Design Temp.	Shell: 118 deg C		Operating temperature	Shell: 10 deg C		
	Tubes:			Tubes:		
X-ray: RT-1			Heat treatment: Yes			
Code parameters: ASME Sec VIII			Coated: No			
Manufacturer: Propak Systems Ltd.			Year built: 2000			
Corrosion allowance: N/S			Manway: Yes			
PRESSURE SAFETY VALVE NAMEPLATE DATA						
PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (PSI)	Capacity (scfm)	Service Date
None	Mercer	95-73.1M1.307NSS	26444	13790	144284	2001
CRN #	Service By	Block Valve	Location	Size	Code Stamp	
0G2606.5C	N/S	Yes – Both Locked open	Inlet piping	4" X 6"	UV/NB	
SERVICE CONDITIONS-INDICATE ALL THAT APPLY						
Sweet X	Sour	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'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

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 is in good overall condition – No chipped or exposed metal - no previous corrosion.
Leakage Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				No leaking detected.
Saddle 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				No distortion to saddles – no leaks at saddle to shell welds. No exposed metal – no corrosion. Ground cable attached to skid unit & pilings.
Anchor Bolts Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				Separator is firmly bolted to skid floor. No signs of deformation.
Concrete foundation Check for cracks, spalling, etc.				X	None.
Ladder / Platform Describe general condition, ensure support is secure to vessel, and describe any hazards.				X	None.
Nozzle Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				All threads connections fully engaged. No deflection – no leaks. No gussets.
Gauges Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				Gauges are visible, appears to be functional, no leaks and suitable for range of MAWP/Temp. Pressure gauge: 0-4000 Kpa @ 200 Kpa. Temperature gauge: 0-150 deg C @ 10 deg C.
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. Piping is painted and in good condition – no exposed metal or surface corrosion found.
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				Located on inlet piping - set at the Inlet Separator's MAWP. Discharge piping is larger than the inlet to PSV. Block valves locked open. Seal is intact. PSV vents to flare.
NDE methods Was UT/ MPI done on vessel (MI coordinator to review results)	X				Ultrasonic thickness survey carried out – 3 inch 90 degree nozzle (UT point 55) metal thickness detected below nominal. Nominal 15.2 mm / min thickness 14.5 mm / T min thickness 5.6 mm.
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: 1. This PSV has not been serviced since 2001 – Servicing is recommended ASAP. Summary: This vessel is in good over all condition, visual external and ultrasonic thickness survey carried out-3 inch 90 degree nozzle (UT point 55) metal thickness detected below nominal. Nominal 15.2 mm / min thickness 14.5 mm / T min thickness 5.6 mm. Vessel is fit for service.					

Inspected By: Joe Holdstock

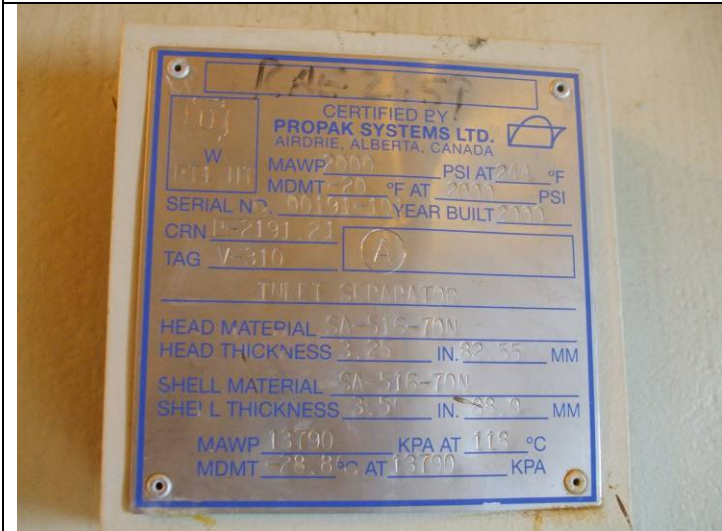
Date: June-02-2010



LSD location



Site overview



Data plate



Overview



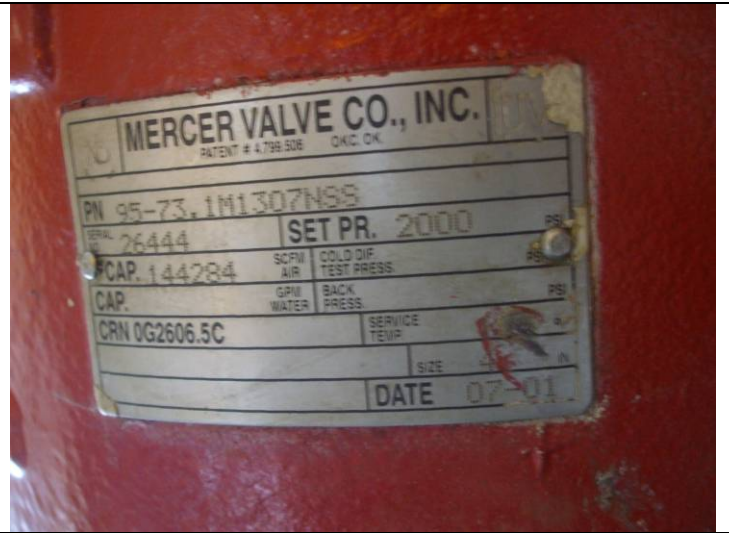
Overview



Temperature gauge



Pressure Gauge



PSV data plate – last service 07-2001



PSV location