

A0481338 - LINE HEATER INSPECTION - JUN 2003

1060-04

Canadian Natural Resources Limited  
Production - Facilities Engineering  
A0481338 Line Heater External Inspection Report

Content Date Range: 6/26/2003 to 6/26/2003

**Vessel Integrity**

Inspection Data

Open: 4/19/2007 Close:

CC+2 0P P



00784565

Vial: Yes  
Original: Yes  
Confidential: No



**PRESSURE EQUIPMENT INTEGRITY  
MANAGEMENT PROGRAM** CLK ✓  
External Inspection Form  
Exhibit #1400

Vessel Location (LSD): <i>100/04-23-75-07 W6M.</i>		Disc #:	Photo #:
Facility Name: <i>SADDLE HILLS</i>		Inspector: <i>J. OLIVER</i>	
Vessel Description: <i>LINE HEATER.</i>		Date: <i>JUNE 26/03</i>	
Prov. Reg. Number: <i>A 481338</i>	CRN: <i>K1977.12.</i>	Page: <i>1</i>	of <i>2.</i>

**GENERAL INFORMATION**

Manufacturer:		Serial Number: <i>126-98-01-C.</i>	
RT: <input type="checkbox"/>	HT: <input type="checkbox"/>	Internally Coated: <input type="checkbox"/>	Insulated: <input type="checkbox"/>
Sh. Side MAWP: <i>Psi / Kpa @ F/C</i>		Tube Side MAWP: <i>Psi / Kpa @ F/C</i>	
Sh. Side Op. Pr: <i>Psi / Kpa @ F/C</i>		Tube Side Op. Pr: <i>Psi / Kpa @ F/C</i>	
Hd. Tk: <input type="checkbox"/>	Mat'l: <input type="checkbox"/>	C.A.: <input type="checkbox"/>	Chan. Hd. Tk: <input type="checkbox"/>
Hd. Tk: <input type="checkbox"/>	Mat'l: <input type="checkbox"/>	C.A.: <input type="checkbox"/>	Chan Sh. Tk: <input type="checkbox"/>
Sh. Tk: <input type="checkbox"/>	Mat'l: <input type="checkbox"/>	C.A.: <input type="checkbox"/>	Trans. Tk: <input type="checkbox"/>
Sh. Tk: <input type="checkbox"/>	Mat'l: <input type="checkbox"/>	C.A.: <input type="checkbox"/>	
VESSEL SIZE: (ID / OD X L):		Strapped: <input type="checkbox"/>	Manway: <input type="checkbox"/> SIZE: <i>N/A.</i>

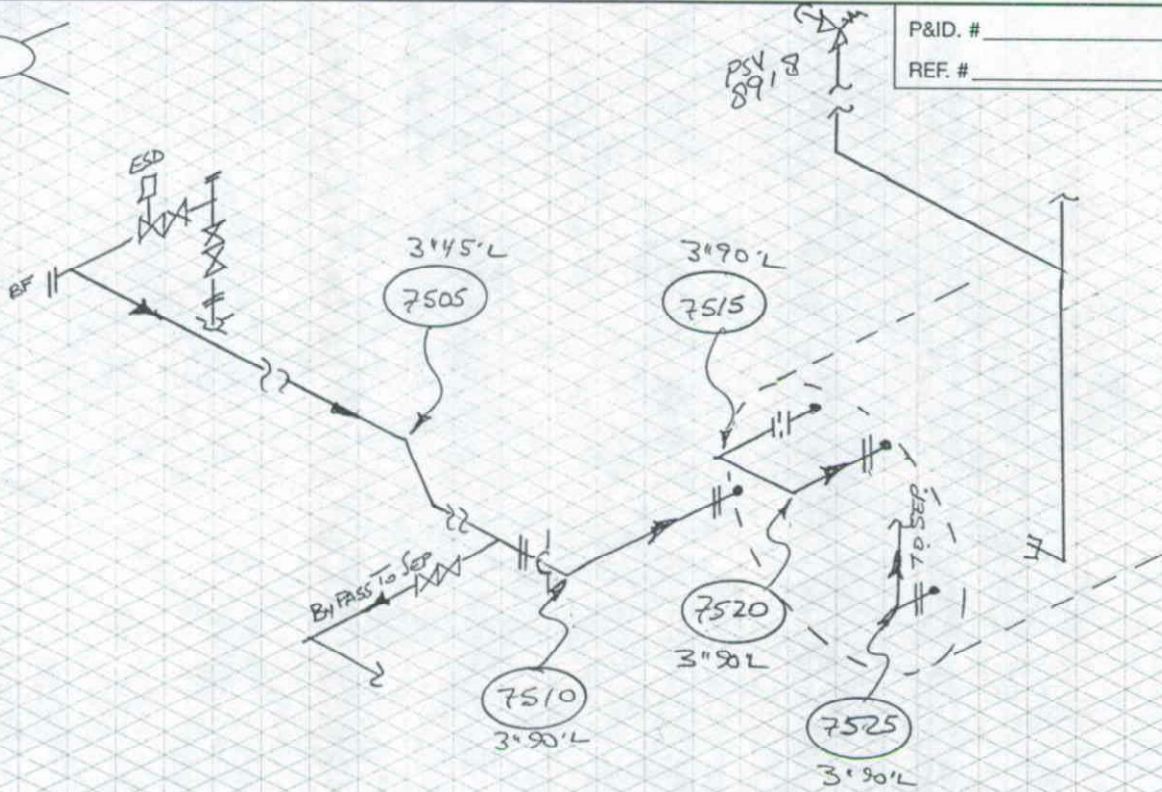
SERVICE CONDITIONS (CHECK ALL THAT APPLY)		OPERATING <input checked="" type="checkbox"/> SHUT IN <input type="checkbox"/> SURPLUS <input type="checkbox"/> JUNK <input type="checkbox"/>	
PROCESS	Air <input type="checkbox"/>	Lean Amine <input type="checkbox"/>	Rich Amine <input type="checkbox"/>
	Sweet Glycol <input type="checkbox"/>	Sweet Gas <input type="checkbox"/>	Sweet Condensate <input type="checkbox"/>
	Sweet Oil <input type="checkbox"/>	LPG <input type="checkbox"/>	Sour Glycol <input type="checkbox"/>
	Sour Gas <input checked="" type="checkbox"/>	Sour Condensate <input type="checkbox"/>	Sour Oil <input type="checkbox"/>
	Carbon Dioxide <input type="checkbox"/>	Nitrogen <input type="checkbox"/>	Steam <input type="checkbox"/>

**VESSEL EXTERNAL CONDITION**

Any Recent Repairs? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Any Physical Damage? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Any External Corrosion? (other than minor surface rust) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Any leaks on the vessel, nozzles or piping? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Any recent ultrasonic thickness tests? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>JUNE 26/03</i>	
No. of times the site is visited & approx. amount of time spent at the site / visit:	Concentration H <sub>2</sub> S:
Vessel Comments:	

**PSV DATA**

ANADARKO TAG #: <i>PSV 8915.</i>		SERVICE COMPANY:	
Manufacture:	Size:	Comments:	
Model #:	CRN #:		
Serial #:	Capacity:		
Set Date:	Set Pressure:		
Are there any Isolating valves on either the inlet or outlet of the PSV? Yes <input type="checkbox"/> No <input type="checkbox"/>			



P&ID. # \_\_\_\_\_  
REF. # \_\_\_\_\_

### VESSEL DATA

Prov. Reg. No. 17481338 C.R.N. K1977.12 P.E. No. \_\_\_\_\_ Serial No. 126-98-01-c  
MFR. MAR-QUINN Code/Div. \_\_\_\_\_ Para \_\_\_\_\_ Code Stamp \_\_\_\_\_  
Yr. Bld. 01 Yr. Inst. \_\_\_\_\_ Size 76.2MM X 12.49M Vol. \_\_\_\_\_ Service Sour. 10% PWHT YES

### Nominal Thickness & Material

Head: \_\_\_\_\_ Mat'l: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Head: \_\_\_\_\_  
Shell: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Shell: \_\_\_\_\_  
Chan Hd: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Chan Sh: \_\_\_\_\_  
Gas Boot Hd: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Gas Boot Sh.: \_\_\_\_\_  
Liq. Boot Hd.: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Liq. Boot Sh.: \_\_\_\_\_

Insulated PARTIAL R.T. 100%

Repairs \_\_\_\_\_

COMMENTS RENT COIL 2950 PSI @ -20'/200°F  
RENT COIL 2025 PSI @ -20'/200°F  
CORR. ALL 3.2

ANADARKO CANADA CORPORATION  
SADDLE HILLS GAS GATHERING  
SADDLE HILLS  
LSO: 100/04-23-75-07 WGM.

WELL & LINE HEATER PIPING

MAWP Shell Side \_\_\_\_\_ @ Temp. \_\_\_\_\_  
MAWP Tube Side \_\_\_\_\_ @ Temp. \_\_\_\_\_

TECH.: _____	REV. DATE: _____	DWG DATE: _____
CAD: _____	REVISION: _____	DRAWING: _____

Vessel Location (LSD):	100/04-23.75-07W6M.	Disc #:		Photo #:	
Facility Name:	SADDLE HILLS	Inspector:	J. OLIVER		
Vessel Description:	LINE HEATER FUEL GAS SCRUBBER.	Date:	JUNE 26/03		
Prov. Reg. Number:	0981338B	CRN:	041531-123	Page:	1 of 2

**GENERAL INFORMATION**

Manufacturer:		Serial Number:	128-08-01		
RT:		HT:	YES <input type="checkbox"/> NO <input type="checkbox"/>	Internally Coated:	YES <input type="checkbox"/> NO <input type="checkbox"/> NOT KNOWN <input type="checkbox"/>
Insulated:	YES <input type="checkbox"/> NO <input type="checkbox"/> PARTIAL <input type="checkbox"/>				
Sh. Side MAWP:	Psi / Kpa @	F / C	Tube Side MAWP:	Psi / Kpa @	F / C
Sh. Side Op. Pr:	Psi / Kpa @	F / C	Tube Side Op. Pr:	Psi / Kpa @	F / C
Hd. Tk:	Mat'l:	C.A.:	Chan. Hd. Tk:	Mat'l:	C.A.:
Hd. Tk:	Mat'l:	C.A.:	Chan Sh. Tk:	Mat'l:	C.A.:
Sh. Tk:	Mat'l:	C.A.:	Trans. Tk:	Mat'l:	C.A.:
Sh. Tk:	Mat'l:	C.A.:			
VESSEL SIZE: (ID / OD X L):		Strapped:	YES <input type="checkbox"/> NO <input type="checkbox"/>	Manway:	YES <input type="checkbox"/> NO <input type="checkbox"/> SIZE:

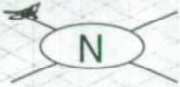
SERVICE CONDITIONS (CHECK ALL THAT APPLY)	OPERATING <input checked="" type="checkbox"/> SHUT IN <input type="checkbox"/> SURPLUS <input type="checkbox"/> JUNK <input type="checkbox"/>
PROCESS	Air <input type="checkbox"/> Lean Amine <input type="checkbox"/> Rich Amine <input type="checkbox"/> Sweet Glycol <input type="checkbox"/> Sweet Gas <input checked="" type="checkbox"/> Sweet Condensate <input type="checkbox"/> Sweet Oil <input type="checkbox"/>
	LPG <input type="checkbox"/> Sour Glycol <input type="checkbox"/> Sour Gas <input type="checkbox"/> Sour Condensate <input type="checkbox"/> Sour Oil <input type="checkbox"/> Carbon Dioxide <input type="checkbox"/> Nitrogen <input type="checkbox"/> Steam <input type="checkbox"/>

**VESSEL EXTERNAL CONDITION**

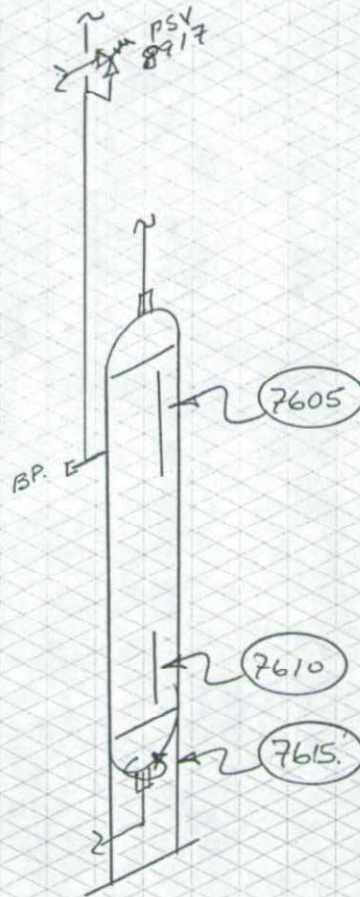
Any Recent Repairs?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Any Physical Damage?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Any External Corrosion? (other than minor surface rust)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Any leaks on the vessel, nozzles or piping?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Any recent ultrasonic thickness tests?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> JUNE 26/03
No. of times the site is visited & approx. amount of time spent at the site / visit:	Concentration H <sub>2</sub> S:
Vessel Comments:	

**PSV DATA**

ANADARKO TAG #:	PSV 8917.	SERVICE COMPANY:	
Manufacture:		Size:	
Model #:		CRN #:	
Serial #:		Capacity:	
Set Date:		Set Pressure:	
Are there any Isolating valves on either the inlet or outlet of the PSV? Yes <input type="checkbox"/> No <input type="checkbox"/>			



P&ID. # \_\_\_\_\_  
REF. # \_\_\_\_\_



### VESSEL DATA

Prov. Reg. No. \_\_\_\_\_ C.R.N. 041531.123 P.E. No. \_\_\_\_\_ Serial No. 128.08-01  
MFR. MAR QUNN Code/Div. \_\_\_\_\_ Para \_\_\_\_\_ Code Stamp \_\_\_\_\_  
Yr. Bld. 01 Yr. Inst. \_\_\_\_\_ Size 203MM X 762MM. Vol. .031 m<sup>3</sup> Service SWEET, PWHT YES,

### Nominal Thickness & Material

Head: 6.4 Mat'l: SA 234 WPB C.A.: 3.2  
Head: \_\_\_\_\_  
Shell: 1/2 SA 106B C.A.: 3.2  
Shell: \_\_\_\_\_  
Chan Hd: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Chan Sh: \_\_\_\_\_  
Gas Boot Hd: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Gas Boot Sh.: \_\_\_\_\_  
Liq. Boot Hd.: \_\_\_\_\_ C.A.: \_\_\_\_\_  
Liq. Boot Sh.: \_\_\_\_\_

Insulated No R.T. 1

Repairs \_\_\_\_\_  
COMMENTS \_\_\_\_\_

*ANADARKO CANADA CORPORATION  
SADDLE HILLS GAS GATHERING  
SADDLE HILLS  
LSD: 100/04-23-75-07 W6M.  
LINE HEATER FUEL GAS SCRUBBER.*

MAWP Shell Side 250 PSI @ Temp. -20 / 100 F  
MAWP Tube Side \_\_\_\_\_ @ Temp. \_\_\_\_\_

TECH.:	REV. DATE:	DWG DATE:
CAD:	REVISION:	DRAWING: