

1060-04

Canadian Natural Resources Limited
Production - Facilities Engineering
A0475010 Line Heater External Inspection Report

Content Date Range: 6/22/2003 to 6/22/2003

Vessel Integrity

Inspection Data

Open: 4/19/2007 Close:

Vital: Yes
Original: Yes
Confidential: No

CC+2 0P P



00784574

A0475010 - LINE HEATER INSPECTION - JUN 2003

Vessel Location (LSD):	100/15-34-75-07 WGM.	Disc #:		Photo #:	
Facility Name:	SADDLE HILLS GAS GATHERING.	Inspector:	J. OLIVER.		
Vessel Description:	"A" LINE HEATER.	Date:	JUNE 22/03		
Prov. Reg. Number:	A 475 010.	CRN:	K1977.12.	Page:	1 of 2

GENERAL INFORMATION

Manufacturer:	MAR-QUINN.	BLT: 2001	Serial Number:	126-80-01-C.	
RT: / HT:	YES <input checked="" 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 checked="" 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):	76.2MM X 12.49M.	Strapped:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Manway:	YES <input type="checkbox"/> NO <input type="checkbox"/> SIZE: N/A.

SERVICE CONDITIONS (CHECK ALL THAT APPLY)

OPERATING SHUT IN SURPLUS JUNK

PROCESS Air Lean Amine Rich Amine Sweet Glycol Sweet Gas Sweet Condensate Sweet Oil

LPG Sour Glycol Sour Gas Sour Condensate Sour Oil Carbon Dioxide Nitrogen Steam

VESSEL EXTERNAL CONDITION

Any Recent Repairs? Yes No
 Any Physical Damage? Yes No
 Any External Corrosion? (other than minor surface rust) Yes No
 Any leaks on the vessel, nozzles or piping? Yes No
 Any recent ultrasonic thickness tests? Yes No

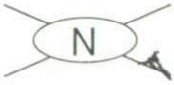
No. of times the site is visited & approx. amount of time spent at the site / visit:

Concentration H₂S: 150 PPM

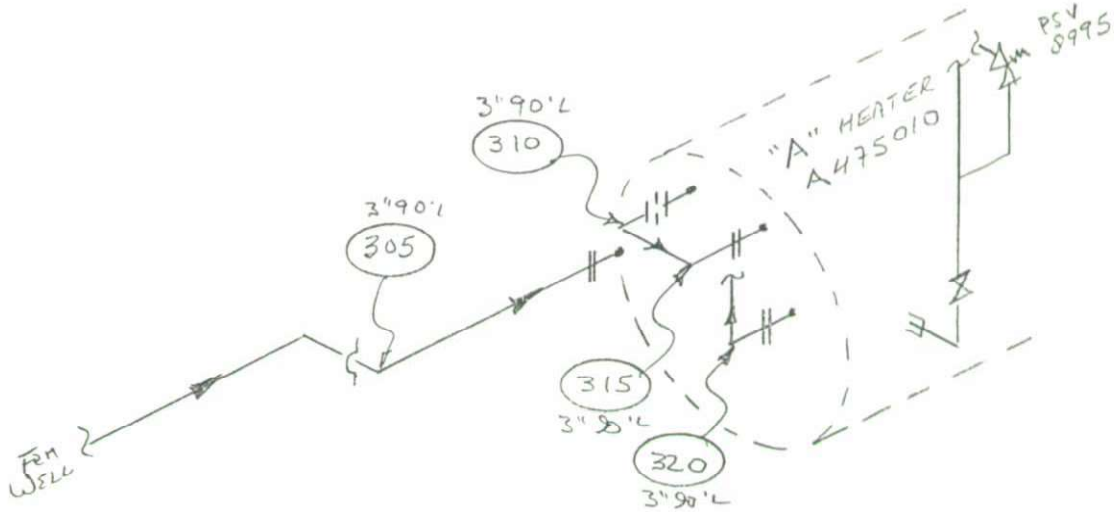
Vessel Comments:
 PRE HEAT TUBE SIDE 2950 PSI @ -20'/200'F
 RE HEAT TUBE SIDE 2025 PSI @ -20'/200'F

PSV DATA

ANADARKO TAG #:	PSV 8995.	SERVICE COMPANY:	BLACK VALVE.
Manufacture:	FARRIS	Size:	1" X 1"
Model #:	270A33-M20	CRN #:	06.0306.9C
Serial #:	449435-11-KE-522248-1	Capacity:	1246 SCFH AIR
Set Date:	JAN 16/03	Set Pressure:	550PS
Are there any Isolating valves on either the inlet or outlet of the PSV?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	U/S
			Comments: PSV IS OFF SH. SIDE OF HTR.



P&ID. # _____
REF. # _____



VESSEL DATA

Prov. Reg. No. A 475010 C.R.N. K1977.12 P.E. No. _____ Serial No. 126-80-01-C
MFR. MAR-QUIN. Code/Div. _____ Para _____ Code Stamp _____
Yr. Bld. 01 Yr. Inst. _____ Size 76.24m x 12.49m Vol. 065M³ Service Sour 150PPH PWHT YES.

Nominal Thickness & Material

Head: _____ Mat'l: _____ C.A.: 3.2
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. 1
Repairs _____
COMMENTS _____

ANADARKO CANADA CORPORATION,
SADDLE HILLS GAS GATHERING,
SADDLE HILLS,
LED: 100/15-34.75-07 W6M.
"A" LINE HEATER PIPING

MAWP Shell Side 2950 PSI @ Temp. -20°/200°F
MAWP Tube Side 2025 PSI @ Temp. -20°/200°F

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

CLK ✓

Vessel Location (LSD):	100/15-34-75-07 W6M.	Disc #:		Photo #:	
Facility Name:	SADDLE HILLS GAS GATHERING.	Inspector:	J. OLIVER.		
Vessel Description:	8" Ø FUEL GAS SCRUBBER	Date:	JUNE 22/03		
Prov. Reg. Number:	0975010B -	CRN:	041531.123	Page:	1 of 2

GENERAL INFORMATION

Manufacturer:	MAR-QUIN.	BLT 2001.	Serial Number:	127-07-01	
RT: / HT:	YES <input type="checkbox"/> NO <input type="checkbox"/>	Internally Coated:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT KNOWN <input type="checkbox"/>	Insulated:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> PARTIAL <input type="checkbox"/>
Sh. Side MAWP:	250 (Psi) Kpa @ -20/100 (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:	6.4	Mat'l:	SA 234 WPB	C.A.:	
Hd. Tk:		Mat'l:		C.A.:	
Sh. Tk:	8.2	Mat'l:	SA 106 B.	C.A.:	
Sh. Tk:		Mat'l:		C.A.:	
Chan. Hd. Tk:		Mat'l:		C.A.:	
Chan Sh. Tk:		Mat'l:		C.A.:	
Trans. Tk:		Mat'l:		C.A.:	
VESSEL SIZE: (ID / OD X L):	203 MM X 762 MM.	Strapped:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Manway:	YES <input type="checkbox"/> NO <input type="checkbox"/> SIZE: N/A.

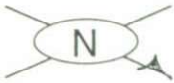
SERVICE CONDITIONS (CHECK ALL THAT APPLY)	OPERATING <input checked="" type="checkbox"/> SHUT IN <input type="checkbox"/> SURPLUS <input type="checkbox"/> JUNK <input type="checkbox"/>
PROCESS	Air <input type="checkbox"/> Lean Amine <input type="checkbox"/> Rich Amine <input type="checkbox"/> Sweet Glycol <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

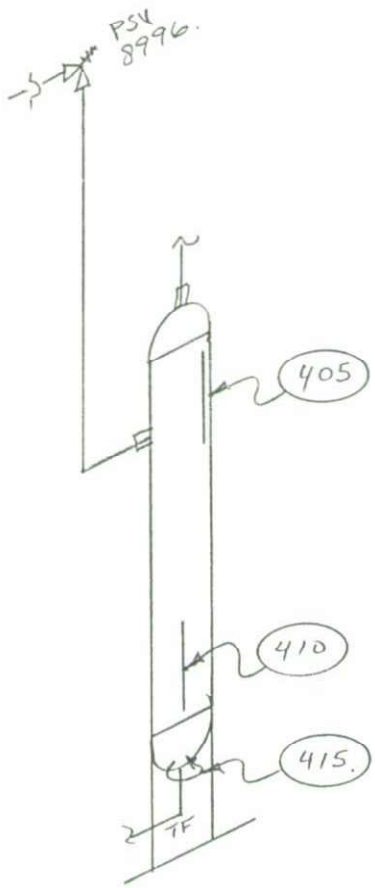
Any Recent Repairs? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Any Physical Damage? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Any External Corrosion? (other than minor surface rust) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
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"/> JUNE 22/03.	
No. of times the site is visited & approx. amount of time spent at the site / visit:	Concentration H ₂ S: 0
Vessel Comments:	

PSV DATA

ANADARKO TAG #:	PSV 8996.	SERVICE COMPANY:	BLACK GOLD.
Manufacturer:	FARRIS.	Size:	1" X 1"
Model #:	27DA33-H20	CRN #:	040386.9C.
Serial #:	429108-15-KE SE11950-2	Capacity:	361 SCFH AIR.
Set Date:	JAN 16/03	Set Pressure:	150 PSI
Are there any Isolating valves on either the inlet or outlet of the PSV? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			



P&ID. # _____
REF. # _____



VESSEL DATA

Prov. Reg. No. _____ C.R.N. 04153/123 P.E. No. _____ Serial No. 127-07-01
MFR. MAR-QUINN. Code/Div. _____ Para _____ Code Stamp _____
Yr. Bld. 01 Yr. Inst. _____ Size 203MM x 762MM Vol. .031M³ Service SWEET PWHT YES

Nominal Thickness & Material

Head: 6.4 Mat'l: SA 234 WPB C.A.: 3-2
Head: _____
Shell: 8.2 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 GAS GATHERING
SADDLE HILLS GAS GATHERING
SADDLE HILLS
LSD: 100/15-34-75-07 W6M
8" Ø FUEL GAS SCRUBBER

MAWP Shell Side 250 PSI @ Temp. -20°/100°F
MAWP Tube Side _____ @ Temp. _____

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