

WO 60 27662



FIRED HEATER INSPECTION REPORT

Facility: **GALLOWAY GAS PLANT** Date: **December 12, 2006** Report #: **IR061212SGCf**

Area Supervisor: **BRENT JOHNSTON** W.O. / C.C.#: **71407**

STATIC DATA			
Alberta Reg. #:	CRN:	NON-CODE	National Board #: -
Equipment Number: 66068448	Notification #:	6026737	Vessel Class: -
Manufacturer:	ALCO GAS & OIL PRODUCTION EQUIPMENT		Serial Number: 2001-6729-02
Equip. Description:	STABILIZER REBOILER		Location (LSD): 12-05-054-20W5
Equipment Tag #:	H-360	Year Built: 2001	Company I.D.#: BC-052145
Province Installed:	ALBERTA	Registration #: -	Skid / Building #: BC-052136

SHELL SIDE			
MAWP:	103 Kpa	Diameter: O.D.:	1219 mm
MAWT:	288 °C	Diameter: I.D.:	1207 mm
MDMT:	- °C	Length:	s/s 5486 mm
Capacity:	- m ³	Overall Length:	6096 mm
Radiography:	NONE	Nozzle Rating:	150 #
Stress Relief:	NO	Code:	-
Ext. Coating:	YES	Position:	HORIZONTAL
Insulated:	YES	Support:	SADDLES

Internal Coating:	NO	Type:	-	Thickness:	- mm	Manway:	YES	Size:	1219 mm
Internal Cladding:	NO	Type:	-	Thickness:	- mm				

	Material	Thickness	Corrosion Allowance
Shell	SA-36	6.35 mm	0.00 mm
Fire tube Head	SA-36	22.23 mm	0.00 mm
Head #2	SA-36	25.40 mm	0.00 mm

FIRETUBE			
Diameter: O.D.:	- mm	Length:	- mm
Diameter: I.D.:	- mm	Radiography:	NO
		Stress Relief:	NO
		Code:	-
		# of Passes:	-
	Material	Thickness	Corrosion Allowance
Tube	N/A	- mm	- mm
Return Bend	N/A	- mm	- mm

PROCESS DATA			
SHELL SIDE			
Product Description:	GLYCOL	Service:	SWEET -
Operating Pressure:	- Kpa	Operating Temperature:	163 °C
TUBE SIDE			
Product Description:	NATURAL GAS	Service:	SWEET -
Operating Pressure:	365 Kpa	Operating Temperature:	- °C

PSV STATIC DATA			
SHELL SIDE			
Tag Number:	-	Manufacturer:	-
Company I.D. #:	NON-CODE	Model # / Type:	-
Serial Number:	-	CRN:	-
Inlet Size:	- mm	Rating:	- #
Outlet Size:	- mm	Rating:	- #
Location of PSV:	-	Set Pressure:	- Kpa
		Capacity:	-
		Back Pressure:	0 Kpa
		Service Date:	-

INSPECTION DETAILS							
Inspection Reason:	CODE INSPECTION	Inspections Required:	VE	UT			
Inspection Test Plan:	-	Inspection Type Used:	VE	UT			
Last Inspection Date:	-	Next Inspection Type:	VE	UT			
Next Inspection Due:	2011	Outstanding Repairs:	NO	RBI Category:	A	B	C
					D		

VESSEL STATUS			
Integrity Status:	SUITABLE FOR CONTINUED SERVICE	Inventory Status:	IN SERVICE
This IR completes a thorough inspection; reschedule as indicated.		YES	Partial inspection; do not reschedule. -

INSPECTION SUMMARY

A thorough inspection to verify the equipments integrity was done by VE and UT.
 There were no rejectable defects observed at this time; the vessel can be recommended fit for service.
 There are no recommendations to be made at this time.
 There were no repairs performed that were related to this inspection.
 No NCR's were issued at this time.
 No IDR's were issued at this time.
 There was no internal inspection performed at this time.

Facility: **GALLOWAY GAS PLANT** Date: **December 12, 2006** Report #: **IR061212SGCf**

There was no internal NDE performed during this inspection.

RECOMMENDATIONS

REPAIRS COMPLETED

INSPECTION OBSERVATIONS

NON COMPLIANCES ISSUED

INSPECTION DEFICIENCIES ISSUED

EXTERNAL VISUAL INSPECTION

The nameplate is in tact and legible.
The instrumentation and its tubing are in good working condition with no detectable leaks.
The pressure retaining welds are in tact with no evidence of deterioration or visible cracking.
The heater support is securely welded to the structural steel.
The anchor bolts are in fair condition.
The heater's ground connection is through the skid's ground rod.
The building to shell interface seal is in good condition.
The building to piping interface seal is in good condition.
The shell side is Non Code and does not require a PSV.
The tube side is protected by a PSV that is in fair condition.
The vessel's insulation cladding is in fair condition.
The piping and piping attachments are in fair condition with no detectable leaks.
The piping bolt up grading is B7 and 2H.
The attached piping insulation cladding is in fair condition.

EXTERNAL NDE

NDE inspections were performed by Silvertip Inspection Services Ltd.
The UT values recorded on the vessel are above nominal.
See the attached NDE reports for more detailed information.

INTERNAL VISUAL INSPECTION

INTERNAL NDE

(Metric)

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PRESSURE TESTS

Test Completed: - Test Pressure: - Kpa Test Acceptable: - Test Report #: -

INSPECTOR CERTIFICATION AND ACCEPTANCE

I, the undersigned, certify that the equipment stated above has been inspected in accordance with the assigned task list and that the statements within this report are correct and represent my inspection findings.

External Inspector's Name: STACEY COWIE	Inspector's Certification: API 510, UT2, MT2, PT2	Inspector's Signature: <i>[Signature]</i>	Date: DECEMBER 12, 2006
Internal Inspector's Name: -	Inspector's Certification: -	Inspector's Signature: -	Date: -

CHIEF OR LEAD INSPECTOR'S ACCEPTANCE AND SCHEDULE CONFIRMATION

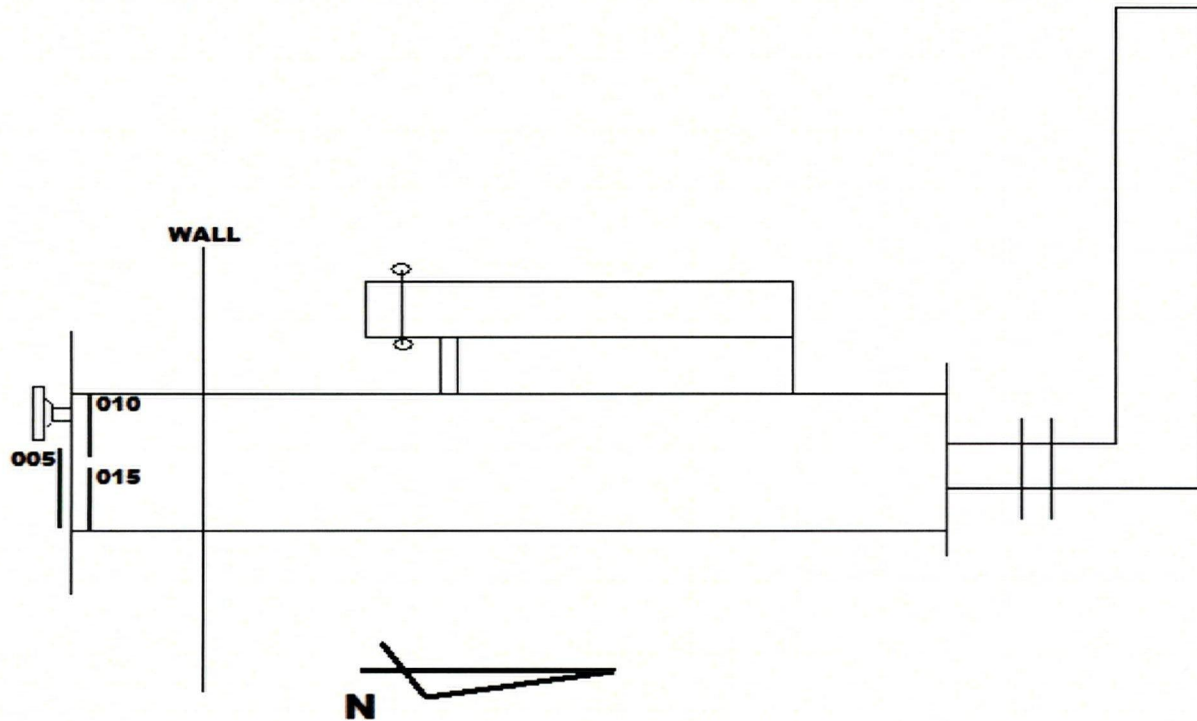
Inspector's Name: JEFF CRABBE	Inspector's Certification: <i>[Signature]</i>	Inspector's Signature: <i>[Signature]</i>	Date: 21/12/07
Vessel Inspection Interval: 5	Leave "As Is": Years	Change to: 5	Years
PSV Inspection Interval: Years	Leave "As Is": Years	Change to: Years	Years

Office Use Only: Report Entered to SEQA Database by: _____ Date: _____
Static Data Verified by: _____ Date: _____



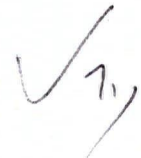
FIRED HEATER UT REPORT

FACILITY: GALLOWAY GAS PLANT		DATE: DECEMBER 12, 2006	REPORT #: IR061212SGCf
AREA SUPERVISOR: BRENT JOHNSTON		W.O. / C.C.# 71407	
STATIC DATA			
Alberta Reg. #:	CRN: NON-CODE	National Board #: -	
Equipment Number: 66068448	Notification #: 6026737	Vessel Class:	
Manufacturer: ALCO GAS & OIL PRODUCTION EQUIPMENT		Serial Number: 2001-6729-02	
Equip. Description: STABILIZER REBOILER		Location (LSD): 12-05-054-20W5	
Equipment Tag #: H-360	Year Built: 2001	Company I.D.#: BC-052145	
Province Installed: ALBERTA	Registration #: -	Skid / Building #: BC-052136	
SHELL SIDE			
MAWP: 15 PSI	Diameter: O.D. 48.000 in	Radiography: NONE	Nozzle Rating: NO #
MAWT: 550 °F	Diameter: I.D. 47.500 in	Stress Relief:	Code: -
			Position: HORIZONTAL
			Insulated: YES
	<i>Material</i>	<i>Thickness</i>	<i>Corrosion Allowance</i>
Head #1	SA-36	0.250 in	0.000 in
Head #2	SA-36	0.875 in	0.000 in
Fire tube	SA-36	1.000 in	0.000 in
PROCESS DATA			
Product Description: GLYCOL		Service: SWEET	
Operating Pressure: PSI		Operating Temperature: 325 °F	
PROCESS DATA			
Product Description: NATURAL GAS		Service: SWEET	
Operating Pressure: 53 PSI		Operating Temperature: °F	



2006	NOMINAL	S.O.B.	E.O.B.	LOW POINT	LOCATION OF LOW POINT	BELOW NOMINAL
LOC 005	1.000	1.060	1.066	1.036	15.00 " FROM S.O.B.	
LOC 010	0.250	0.305	0.321	0.313	3.00 " FROM S.O.B.	
LOC 015	0.250	0.312	0.316	0.293	12.00 " FROM S.O.B.	

NOTES:
 ALL VALUES ARE IN IMPERIAL UNITS
 S.O.B. = START OF BAND
 E.O.B. = END OF BAND
 LOW POINT= LOWEST READING IN THE BAND



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HEATER_INDIR_FIRED INSPECTION REPORT

Inspection Report

Notification Number: 6026737 Work Order: 6027667
 Notification Desc: REBOILER, STABILIZER Maintenance Plan: QFHTINFR0058
 Tasklist Operation (2Y Inspection Interval) 2Y Code Inspection Heater - Indirect Fi

Equipment Static Data

Equipment Number: 66068448 Equipment Description: REBOILER, STABILIZER
 Class: HEATER_INDIR_FIRED Tag Number: 12-05-054-20W5
 Serial Number: 2001-6729-02 Year Built:
 Manufacturer: ALCO
 Location: FH-FW-014-00001 Location Description: GALLOWAY GAS PLANT 12-05-054-20W5
 Provincial Number:
 Status Codes: NOPR ORAS PM Activity Code:
 Equipment Status: In Service - Fully Utilized

Burner Duty: Design Max Temp: 550 DEGF Fluid Service: SWEET
 Heat Medium: HEATING OIL/GLYCOL Heating Surface Area: Length: 5.40 M
 MDMT - Min. Design Metal Temp: 550 DEGF Nozzle ANSI Rating: Number of Passes-Tube:
 Shell MAWP: 15 PSI Still Column Vent Type: Stripping Gas Present:
 Tube design MAWP: Vessel Diameter: 18.0 "

PRD Static Data

Equip ID	Location	Size		Set Pressure	Capacity	Manufacturer	Serial Number	Model Number	Next Service Date
		Inlet	Outlet						

Process Data

Product Description: AMINE Fluid Service: Sweet Sour PPM:
 Operating Pressure: KPA Operating Temperature: °C

Pressure Test

Test Completed: Yes No Test Acceptable: Yes No Test Report #:

PSV Data

Tag/Serial No.	Location	Size		Set Pressure	Capacity	Model / Type	Service Date
		Inlet	Outlet				
SE-14780-1	PIPING (INFO GIVEN BY OPERATIO	1"	1"	150PSI	361SCFM	FARRIS	06/2006

Inspection History

Inspected By: CRABBE JEFF Inspection Date: 2006.06.06

Inspection Summary

An external inspection was performed to verify the unit's integrity. No concerns were found and it is considered acceptable for continued service.

Recommendations

None.

Repairs Completed

Equipment Status

Integrity Status Suitable for Continued Service Immediate Repairs Required Replace
 Future Repairs Required

Inventory Status In Service - Fully Utilized Idle Surplus Scrap

QA Activities

- Leave As-Is
- Equipment Replaced
- MAWP Derated
- Defect Removed & Rewelded
- Epoxy Patched
- Weld Overlayed
- Grind Dressed
- Coating - Cleaned & Patched
- Part Cleaned
- Part / Component Replaced
- Patch Installed
- Coating - Removed & Replaced
- Lapped & Dressed

Noncompliances or Inspection Deficiencies Issued

External Visual Inspection

The cladding was in good condition.
The piping, bolting, gauges and external attachments are in good condition.
The vessel is securely mounted to the concrete foundation through the saddle supports.
The overall condition of this vessel is good.

External NDE Examination

UT was performed by Silvertip Inspections. There were no significant findings the results are acceptable.

Internal Visual Inspection

The shell and heads were in good condition, there was no pitting or corrosion present. The internal support attachments were in good condition. The process coil is in good condition, there is a separate report for the process coil. (Notification #6054162). The nozzles were found to be in good condition.

Internal NDE Examination

Data Integrity

Inspection Interval

Should have a five year interval.

Damages


Inspector Certification

I, the undersigned certify that the above equipment has been inspected in accordance with the assigned task list and that statements within this report are correct and represent inspection findings.

Inspector Name CRABBE JEFF Inspector Signature 

Inspection Company HUSKY ENERGY Date 01/18/07

Lead Inspector's Acceptance & Schedule Confirmation

Lead Inspector Jeff Crabbe Signature  Date 01/18/07

Vessel Inspection Interval Leave as-is / Change to: 5yr.

PSV Inspection Interval Leave as-is / Change to: _____