

FUEL GAS SCRUBBERS INSPECTION REPORT

(Metric)

Facility: **LLOYDMINSTER SOUTH BOOSTER** Date: **August 18, 2010** Report #: **IR100818RPLr**

Area Supervisor: **AL HINZ** W.O. / C.C.# **77275**

STATIC DATA

Alberta Reg. #:	CRN:	A-4059.32	National Board #:	-	
Equipment Number:	62045567	Notification #:	-	Classification:	-
Manufacturer:	WATERFLOOD SERVICE & SALES LTD		Serial Number:	0196406	
Equip. Description:	COMPRESSOR FUEL GAS SCRUBBER		Location (LSD):	07-30-048-01W4	
Equipment Tag #:	-	Year Built:	2001	Company I.D.#:	-
Province Installed:	ALBERTA	Registration #:	-	Skid / Building #:	-
Nameplate Attached:	YES	Legible:	YES	U1A Available:	NO

MAWP:	1793	Kpa	Diameter: O.D.	219	mm	Radiography:	NO	Efficiency:	%	
MAWT:	93	°C	Diameter: I.D.	194	mm	Stress Relief:	NO	Code Stamp:	-	
MDMT:	-29	°C	Length:	s/s	1143	mm	Ext. Coating:	YES	Position:	VERTICAL
Capacity:	-	m3	Overall Length:	1524	mm	Insulated:	NO	Support:	SKIRT	

Internal Coating:	NO	Type:	-	Thickness:	-	mm	Manway:	NO	Size:	-	mm
Internal Cladding:	NO	Type:	-	Thickness:	-	mm	Test Pressure:	-	kpa		
Inspection Port:	YES	Size:	203	mm	51	mm	Location: #1	TOP HEAD	#2	BOTTOM SHELL	

	Type	Material	Thickness	Corrosion Allowance
SHELL	-	N/A	12.70 mm	- mm
TOP HEAD	Flat	SA-105N	28.58 mm	- mm
BOTTOM HEAD	ELLIPTICAL	SA-516-70	12.70 mm	- mm

Nozzle Description	I.D. #	NPS	Flange Rating	Type	Material	Thickness	Length
Inlet	-	51 mm	150 #	RFWN	SA-106B	5.5 mm	51 mm
Outlet	-	51 mm	150 #	RFWN	SA-106B	5.5 mm	51 mm
Drain	-	25 mm	150 #	RFWN	SA-234-WPB	4.5 mm	254 mm

PROCESS DATA

Product Description:	NATURAL GAS		Service:	SWEET	-
Operating Pressure:	379	Kpa	Operating Temperature:	28	°C

PSV STATIC DATA

Tag Number: -		Manufacturer: TAYLOR			
Company I.D. #: -		Model # / Type: T-8200-1		Equipment # : -	
Serial Number: 82344-35		CRN: OG1316.2C		Code Stamp: UV NB	
Inlet Size: 25 mm	Rating: - #	Set Pressure: 414 Kpa	Back Pressure: Kpa		
Outlet Size: 25 mm	Rating: - #	Capacity: 262 SCFM	Service Date: 06/2010		
Location of PSV: COMPRESSOR FUEL GAS SCRUBBER INLET PIPING					

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:	2015	Outstanding Repairs:	NO	RBI Category:	A	B	C	D	

VESSEL STATUS

Integrity Status:	SUITABLE FOR CONTINUED SERVICE		Inventory Status:	ISF	
This IR completes a thorough inspection; reschedule as indicated.			YES	Partial inspection; do not reschedule.	
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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.
 There was no internal NDE performed during this 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 vessel support is securely welded to the skid floor.
 There is adequate access to the bottom head.
 The vessel's ground connection is through the skid's ground rod.
 The vessel is protected by a PSV that is in fair condition.
 The vessel is painted with no notable coating defects.
 The piping and piping attachments are in fair condition with no detectable leaks.
 The piping clamps and supports are tight and in good condition.
 The piping bolt up grading is B7 and 2H.
 The attached piping is painted with no notable defects.

RECOMMENDATIONS

REPAIRS COMPLETED

INSPECTION OBSERVATIONS

NON COMPLIANCES ISSUED

INSPECTION DEFICIENCIES ISSUED

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EXTERNAL VISUAL INSPECTION

ID	Description	Condition	Location	NCR	Comments
GENERAL					
V2	Corrosion	No			Acceptable
V3	Leaks	No			Acceptable
V7	Heads	Fair			Acceptable
V9	Electrical Ground	Fair			Acceptable
V11	Coating/Painting	Fair			Acceptable
V13	Gauges/Site Glass	Fair			Acceptable
V14	Shell	Fair			Acceptable
SUPPORTS					
V24	Saddle/Skirt	Fair			Acceptable
CONNECTIONS					
V33	Nozzles	Fair			Acceptable
V37	Bolting	Fair			Acceptable
V38	Flanges	Fair			Acceptable
RELIEF DEVICE					
V51	Other (Please Explain)	Fair			Acceptable
V52	Corrosion	No			Acceptable
V53	Leaks	No			Acceptable
V54	Restricted Inlet/Outlet	No			Acceptable

EXTERNAL NDE

NDE inspections were performed by Silvertip Inspection Services Ltd.
Some of the UT values recorded on the vessel are slightly below nominal.
The UT values recorded on the drain nozzle are slightly below nominal.
See the attached NDE reports for more detailed information.

INTERNAL VISUAL INSPECTION

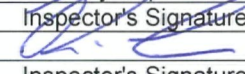
INTERNAL NDE

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:	Inspector's Certification:	Inspector's Signature:	Date:
REMI LACASSE	API 510		AUGUST 18, 2010
Internal Inspector's Name:	Inspector's Certification:	Inspector's Signature:	Date:
-	-	-	-

CHIEF OR LEAD INSPECTOR'S ACCEPTANCE AND SCHEDULE CONFIRMATION

Inspector's Name:		Inspector's Certification:		Inspector's Signature:		Date:	
RAY TRACHUK							
Vessel Inspection Interval:	Leave "As Is":	Change to:	PSV Inspection Interval:	Leave "As Is":	Change to:		
5 Years		Years	4 Years		Years		

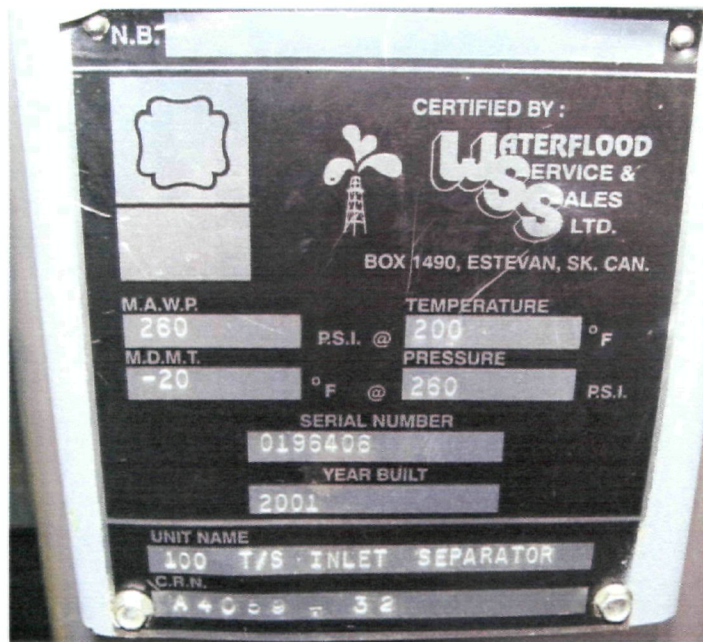
Office Use Report Entered to SEQA Database by: _____
Only Static Data Verified by: _____

Date: _____
Date: _____

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NAMEPLATE



OVERALL VIEW

[illegible]

TML	TML LOCATION		THICKNESSES			THICKNESS @ LOW PNT	BELOW	BELOW
	ITEM DESC.		NOM.	C.A	MIN.		NOMINAL	MINIMUM
3-05	2" INLET NOZZLE	B-T	5.5	N/A	N/A	5.3	0.2	-
3-10	TOP SHELL	T-B	12.7	N/A	N/A	12.6	0.1	-
3-15	MID SHELL	T-B	12.7	N/A	N/A	12.7	-	-
3-20	BOTTOM SHELL	T-B	12.7	N/A	N/A	13.2	-	-
3-25	BOTTOM HEAD	T-B	12.7	N/A	N/A	11.0	1.7	-
3-30	V - 1" 90° DRAIN ELL	T-B	4.5	N/A	N/A	3.6	0.9	-
3-35	2" OUTLET NOZZLE	B-T	5.5	N/A	N/A	5.3	0.3	-