

PRESSURE VESSEL & COLUMN INSPECTION REPORT

LSD: 08-07-046-24W3 **Date:** 2016-02-05 **SAP Equipment ID** 66178606

VESSEL STATIC DATA

Plant:	Baldwinton/Freemont	OP Unit:		System:	
Prov. Insp . #:	0493440	NB#:	N/S	CRN:	R-2661.2
Equipment Description:	SCRUBBER	Serial #:	2373-2	Equip Tag#:	66178606
Manufacturer:	RAMBLER CONST.	Vessel Class:	vessel	Year Built:	2003
Internal Access:	No	Description:		MDMT:	-29 C
MAWP:	4826 kpa	At Temp	66 C	PWHT:	No
Code:	N/S	RT:	RT2	Orientation:	Horizontal
Diameter:	965 mm	Length:	2438 mm	(T/T):	mm
OAL:	mm	Thickness:	22.23 mm	Corr Allowance:	1.59 mm
HEAD	Mat'l: SA-516 70MT	Thickness:	19.05 mm	Corr Allowance:	1.59 mm
SHELL	Mat'l: SA-516 70	Thickness:		Corr Allowance:	
Nozzle	Mat'l:	Thickness:		Corr Allowance:	
Internal Coating:		Internal Clad:		Capacity:	m3
Manway:	No	Inspection Port:	No	Skirt	Legs Saddle X
Nozzle Rating:	300 lb ANSI	Painted:	Yes	Insulated:	No

PROCESS DATA

Production Description:	Sweet Yes Sour:
Operating Pressure	kpa
Operating Temp:	C
Status:	Operating

PSV STATIC DATA

Tag #	Serial No.	Location	Size(mm)		Set Press (kPa)	Capacity Imperial (SCFM)	Manufacturer	Model	Last Service	Service Company
			Inlet	Outlet						
6908871	6908871	Piping	25.40	25.40	4137	2334	HYDRO SEAL	14BE3MOV 00/D5	2012/12/01	N/S

PSV DETAILS

	Type(Thread/Flange)	ANSI Rating	Size(In/mm)
PRD Inlet	Threaded	N/A	25.40
PRD Outlet	Threaded	N/A	25.40

NDE Equipment Records

Procedure #	Description	Manufacturer	Model#	Serial#	Due Date
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**** See Associated NDE Report

INSPECTION SUMMARY

VESSEL IN GOOD CONDITION.

RECOMMENDATIONS

NONCONFORMANCES/INSPECTION DEFICIENCIES



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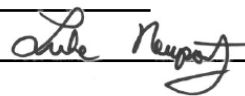
66178606

INSPECTION PLANNING

Inspection Strategy		Availability		Inspection Interval	4 year
Inspection Date	2016/02/05	Date of Last Insp		Date of Next Insp	2020/02/05

REPORT CERTIFICATION

The SignatureS below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.

Inspected by	Justin Orichowski		AB Cert #	758	SK PEI #	214	Date	2016/02/05
Reviewed and Approved by							Date	2016-06-03
Criticality Assessment Rerun			Inspection Planning Rerun					
Assessed Next Inspection Date	2020-02							

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DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	Accept		No	NO ISSUES.
V2	General Corrosion	Accept		No	NO ISSUES.
V3	General Leaks	Accept		No	NO ISSUES.
V4	Vibration	N/A		No	
V5	Dissimilar Flange Rating	N/A		No	
V6	Ladder/Stairway	N/A		No	
V7	Heads	Accept		No	NO ISSUES.
V8	Guy Wires	N/A		No	
V9	Electrical Ground	Accept		No	BUILDING IS GROUNDED.
V10	Painted Inactive Corrosion	N/A		No	
V11	Coating/Painting	Accept		No	PAINTED.
V12	Expansion Joint or Bellows	N/A		No	
V13	Gauge/Site Glass	Accept		No	GOOD CONDITION.
V14	Shell	Accept		No	NO ISSUES OBSERVED.
V15	Jacket	N/A		No	
V21	Support Other (Please explain)	N/A		No	
V22	Foundation	Accept		No	METAL.
V23	Anchor Bolts	Accept		No	BOLTS ARE SECURE.
V24	Saddle/Skirt	Accept		No	SADDLE.
V25	Davit	N/A		No	
V26	Fireproofing	N/A		No	
V31	Connections Other (Please explain)	N/A		No	
V32	Small Branches	Accept		No	NO ISSUES.
V33	Nozzles	Accept		No	GOOD CONDITION.
V34	Manways	N/A		No	
V35	Reinforcing Pads	N/A		No	
V36	Inadequate Thread Engagement	N/A		No	
V37	Bolting	Accept		No	THREADS FULLY ENGAGED.
V38	Flanges	Accept		No	NO ISSUES OBSERVED.
V39	Leak Clamps	N/A		No	
V41	Insulation Other (Please explain)	N/A		No	
V42	Damage	N/A		No	
V43	Penetrations	N/A		No	
V44	Insulation Jacket	N/A		No	
V45	Banding	N/A		No	
V46	Seals/Joints	N/A		No	
V51	Relief Devices Other (Please explain)	Accept		No	SERVICED 12/01/2012.
V52	Corrosion	Accept		No	NONE.
V53	Leaks	Accept		No	NONE.
V54	Restricted Inlet/Outlet	Accept		No	NONE.

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V55	Manual Operation Lever	N/A		No	
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DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments

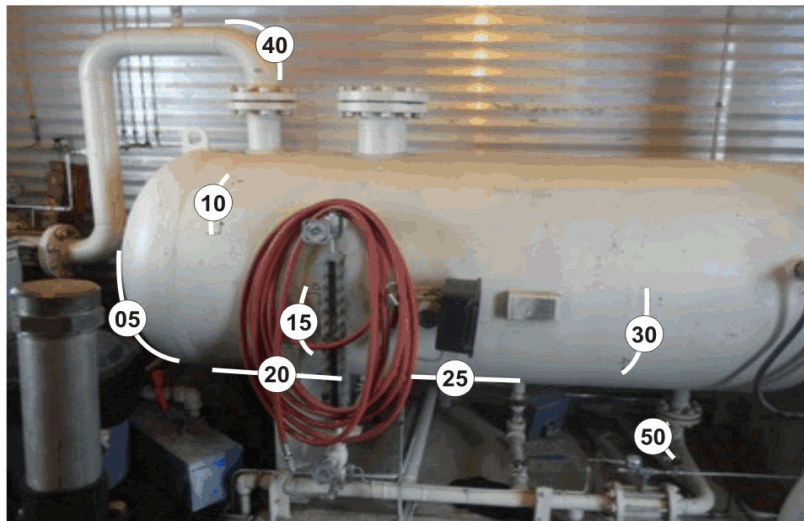
DETAILED INSPECTION UT THICKNESS

CML	Nom. Thickness (mm)	CURRENT READINGS (mm)	short term corr rate (mm/y)	long term corr rate (mm/y)	remaining life (year)	Survey Date	Comments
05 (HEAD)	22.23	22.05	0.0133	0.0133	425.3	2016/02/05	NO COMMENTS Within CA
10 (SHELL)	19.05	19.13	0.0000	0.0000	198.0	2016/02/05	NO COMMENTS
15 (SHELL)	19.05	19.02	0.0019	0.0019	1242.4	2016/02/05	NO COMMENTS Within CA
20 (SHELL)	19.05	19.15	0.0000	0.0000	198.0	2016/02/05	NO COMMENTS
25 (SHELL)	19.05	19.02	0.0019	0.0019	1242.4	2016/02/05	NO COMMENTS Within CA
30 (SHELL)	19.05	18.95	0.0076	0.0076	300.6	2016/02/05	NO COMMENTS Within CA
35 (HEAD)	22.23	21.87	0.0267	0.0267	206.0	2016/02/05	NO COMMENTS Within CA
40 (90L 4 40)	6.02	5.92	0.0076	0.0076	514.2	2016/02/05	NO COMMENTS Within mill tolernace
45 (90L 6 40)	7.11	6.88	0.0171	0.0171	229.7	2016/02/05	NO COMMENTS Within mill tolerande
50 (90L 2 40)	3.91	4.01	0.0000	0.0000	198.0	2016/02/05	NO COMMENTS

Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equip	Due Date OF Calibration	NDE Procedure No.
Justin Orichowski		1	16325	02/05/2016	104_91638503_EPOCH4	06/27/2016	WQS UT-001

EXAMINATION ILLUSTRATION

DISTRICT:	SASK WEST	FACILITY:	BALDWINTON/ FREEMONT	LOCATION/LSD:	08-07-046-24W3
EQUIP NAME:	SCRUBBER			PROV REG No.:	0493440
SERIAL No.:	2373-2	Equip No.:	66178606	National Board No.:	



NOTES:

PHOTOGRAPHS

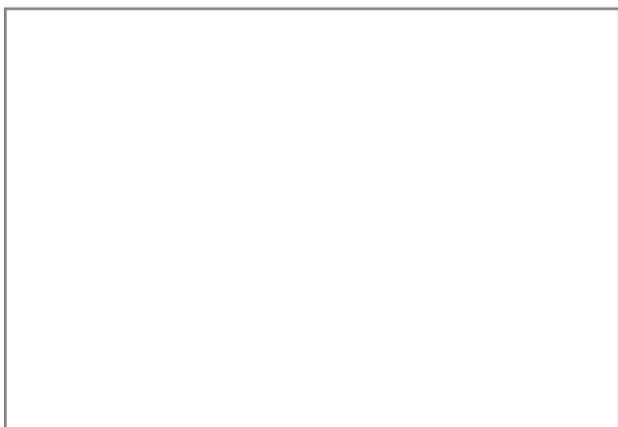
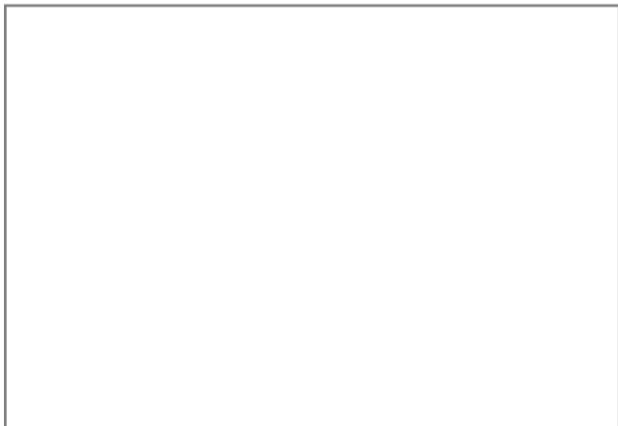
EQUIP NAME:	SCRUBBER		PROV REG No.:	0493440
SERIAL No.:	2373-2	Equip No.:	66178606	National Board No.:



NAMEPLATE



OVERALL



NOTES: