

01-18-017-18W4M  
2ND STG SUCTION SCRUBBER  
A0174987  
REPORT # A#0174987\_GRADY INSPECTION LTD VE UT INSP\_30MAR2022

DATE 3/30/2022  
CLIENT CNRL

Phone:403-793-7697

8 Sarah King Crt E Brooks, Alberta, T1R 0J8  
grady.rustebakke@gmail.com

GRADY  
INSPECTION LTD



RESULTS OF INSPECTION:

VE Inspection:  
Fit For Service. Vessel is in good visual condition.  
Minor cracking in concrete base  
UT Inspection:  
(-.9 mm) wall loss found on Pipe CML 55 Nominal: (7.1 mm) T-Previous: (7.2 mm) T-Actual: (6.3 mm) T-Required: (2.8 mm) CR: (.14 mm/yr) RL: (25.36 years)

PRESSURE EQUIPMENT										AB-506 INTERVAL														
DISTRICT		AB - OIL & NATURAL GAS					SHELL		TUBE			Compressor Bottles in vibrating												
FACILITY		Armada Gas Plant					MAWT		298			F			GRADE									
A#		A0174987			YR		1981		MAWP		655					psi			YEARS					
SERIAL #							PSV		655					psi			Equip							
CRN		D-9136.23					PSV CRN		01832.568					REG										
EQUIP#							SERVICED		9/9/2020					3										
STATUS		IN SERVICE					UNIT		K301					INSPECTION TYPE										
MANUFACTURER		BARBER INDUSTRIES INC					VE		VI		MT		PT		ET		UT							
DH LSD							L		4.3		Ft		OD		1.07		Ft		X					
REPAD		UNIQUE ID					INSPECTION RESULT:		NCR-OPERATIONS															
							NCR-REGULATORY/ADMIN																	
							ACTION ITEM RAISED																	
							REPAIR REQUIRED																	
							SUITABLE FOR SERVICE							X										
							RECOMMENDATIONS:																	
							VE Inspection:																	
							Monitor foundation																	


T-Required: (2.8 mm) CR: (.14 mm/yr) RL: (25.36 years)

SIGN OFF		API 510	EXP.	IPV	EXP.	INSPECTOR - PRIMARY	INSPECTOR - REVIEW	CLIENT SIGN OFF
INSPECTED BY	ToddM Mckenzie	97445	12/31/2022	00133	7/13/2026			
REVIEWED BY	Ashley Rustebakke	60285	7/31/2024	966	6/16/2026			

<b>Ultrasonic Report</b>		<b>Date</b>	3/25/2022	Phone: 403-793-7697  8 Sarah King Crt E Brooks, Alberta, T1R 0J8 grady.rustebakke@gmail.com	
<b>LSD</b>	01-18-017-18W4M	<b>Facility</b>	Armada Gas Plant		
<b>DH-LSD</b>		<b>Field</b>	Red Deer District		
<b>Jurisdiction #</b> A0174987					
<b>Serial #</b>					
<b>Ultrasonic Report #:</b> A#0174987_GRADY INSPECTION LTD VE UT INSP_30MAR2022					

ULTRASONIC SET			COMPONENT DETAILS				CODE					
EQUIPMENT	CALIBRATION DUE	SERIAL NUMBER	MATERIAL GRADE	SURFACE PREP	TEMP	THICKNESS	CALIBRATION	EVALUATION				
EPOCH 600	2/25/2023	120388107	Carbon Steel	Painted	0C		ASME V	ASME VIII Div 1				
CALIBRATION BLOCK		PROBE						COUPLING		METHOD		
TYPE	SERIAL#	REF dB	SCAN dB	FREQ.	SIZE.	ANGLE	SERIAL #	TYPE	COUPLANT	CABLE	TECHNIQUE	PROCEDURE
10 Step Metric	14-2065	60	66	5 Mhz	0.25 "	0	15B00DU3	Dual	UT-X	6' BNC to Micro	LW Dual	UT01T1R4
SCOPE		As requested by Dustin Rumohr an ultrasonic inspection was completed on the SUCTION SCRUBBER										
LIMITATIONS		Previous ultrasonic inspection data not obtained by Grady Inspection Ltd.										
RESULTS		(-.9 mm) wall loss found on Pipe CML 55 Nominal: (7.1 mm) T-Previous: (7.2 mm) T-Actual: (6.3 mm) T-Required: (2.8 mm) CR: (.14 mm/yr) RL: (25.36 years)										

<b>Technician Name</b>	<b>Certification Body</b>	<b>Certification #</b>	<b>Expiry</b>	<b>Technician Signature</b>				
3    ToddM	CGSB	9234						
				<b>Client Name</b>				Dustin Rumohr
				<b>Client Signature</b>				

<b>External Inspection - (Vessel)</b>		<b>Date</b>	3/25/2022	Phone:403-793-7697 8 Sarah King Crt E Brooks, Alberta, T1R 0J8 grady.rustebakke@gmail.com	
<b>LSD</b>	01-18-017-18W4M	<b>Facility</b>	Armada Gas Plant		
<b>DH-LSD</b>		<b>Field</b>	Red Deer District		
<b>Jurisdiction #</b> A0174987					

<b>Fit For Service:</b>	Fit For Service.
<b>Inspection Summary:</b>	Vessel is in good visual condition. Minor cracking in concrete base
<b>Recommendations:</b>	Monitor foundation

External Inspection Items	G/F/P	Comments
General Condition:	Good	No notable mechanical damage, areas of wear/fretting, distortion, misalignment, or visible weld defects.
External Coating:	Good	Vessel is in good visual condition. Vessel is indoors.
Insulation / Cladding:	N/A	Non insulated vessel
Nozzles, Piping and Connections:	Good	Number of nozzles repaded: Number of nozzles without repad: Nozzles and piping in good visual condition
Buried Vessels:	N/A	Above Ground
Ladders, Platforms and Walkways:	N/A	No attached ladder or platform
Foundations and Supports:	Fair	Building is secure Building on concrete foundation, minor cracking noted in concrete base.
Shell:.	Good	No notable mechanical damage, areas of wear/fretting, distortion, misalignment or visible weld defects.
Saddles / Skirts:	Good	Skirt is in good visual condition.
Grounding:	Good	Ground Wire is secure Grounded through piping system
Gauges and Instrumentation:	Fair	<div>Shell Gauge ( 0 - 600 @ 90 psi )      Temp Gauge ( - @ )</div> <div>Gauge is not suitable for MAWP Compressor is digitally monitored for pressure and temperature.</div>
Pressure Protection:	Good	The PSV Set Pressure ( 655 psi) is suitable for the MAWP ( 655 psi)
NDE Summary:	Good	No corrosion was found with the ultrasonic inspection.
Manway Davits/Quick Closure:	N/A	No Manway
Nameplate:	Good	Nameplate is legible and readily accessible and securely affixed
Code Variance:		

## PSV Data

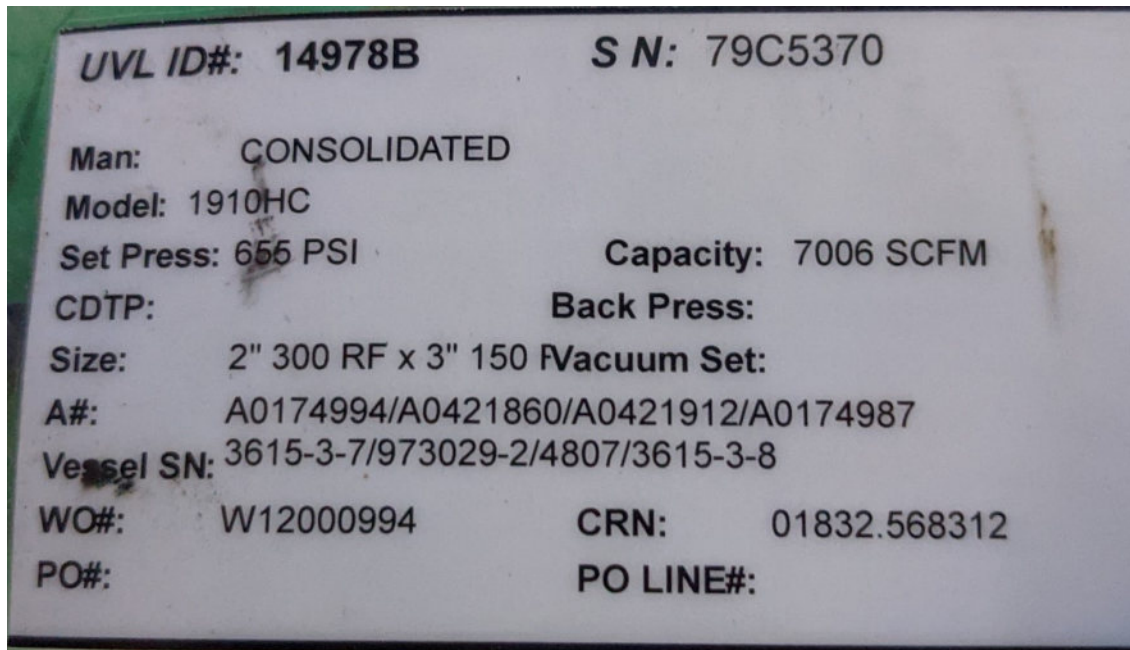
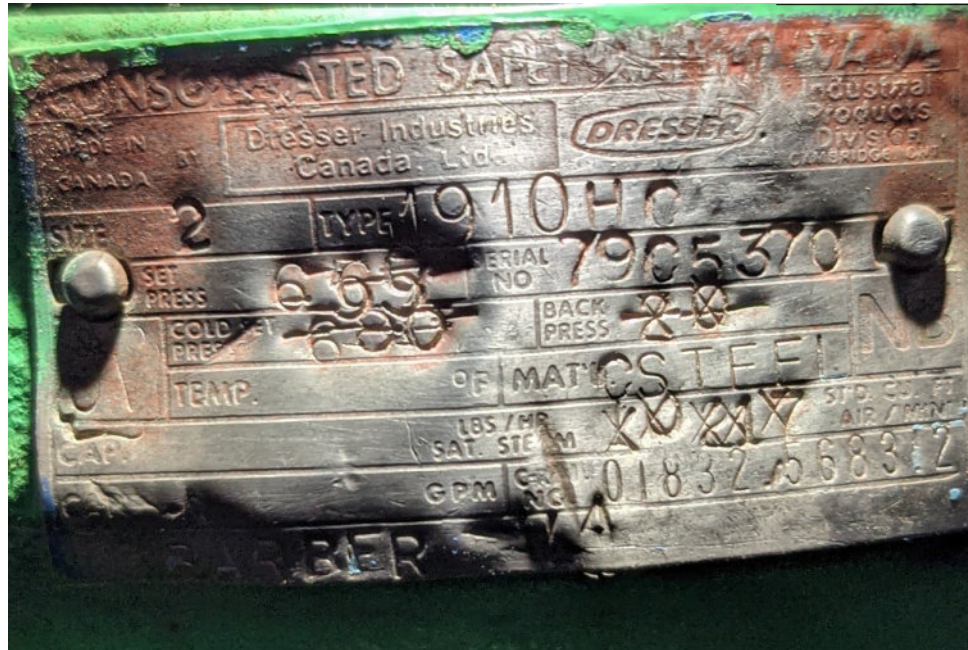
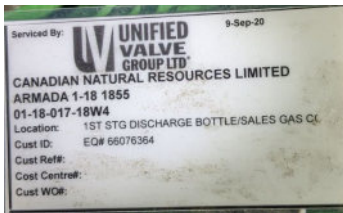
LSD

01-18-017-18W4M

FACILITY Armada Gas Plant

FIELD Red Deer District

Phone:403-793-7697

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## ASSOCIATED PRESSURE EQUIPMENT DATA

PV JUR/SER A0174987

SHELL

TUBE

MAWP

655

psi

## PSV FIT FOR SERVICE STATEMENT

Fit For Service.

## PSV STATIC DATA

MODEL 1910HC

SERIAL 79C5370

MANUFACTURER CONSOLIDATED

TAG 14978B

CRN 01832.568312

SEAL Y

SET PRES

655

psi

CAPACITY

7006

SCFM

SERVICE DATE

9/9/2020

SERVICE COMPANY

Unified Valve Group

T/F

UV

NB

F

UV

NB

SIZE

B VALVE

CARSEAL

INLET

2

N

N

OUTLET

3

N

N

## PSV COMMENTS



Overview Photo

LSD 01-18-017-18W4M  
Jur # A0174987  
Serial #

Date

3/30/2022

FACILITY

Armada Gas Plant

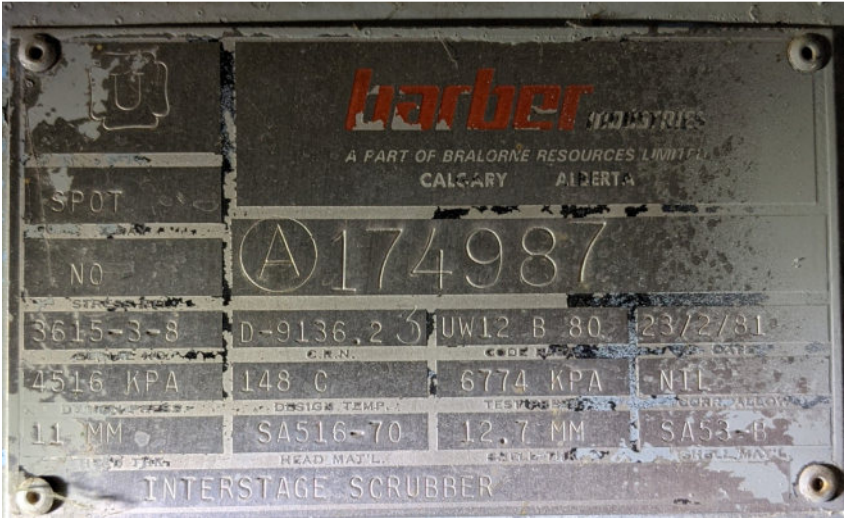
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Red Deer District

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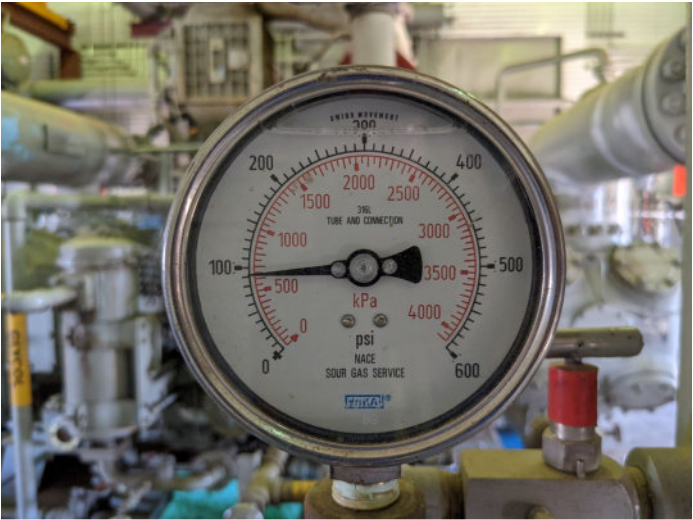
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Nameplate



Overview



Pressure Gauge



Temperature Gauge

**Overview Photo**

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**Liquid Level****Inside Skirt****Foundation**

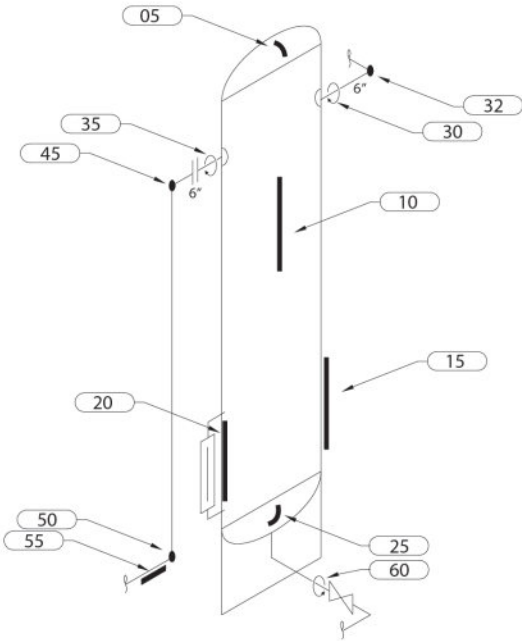
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Ser #

Phone:403-793-7697

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Ser #		Inspection Dates and Thickness Values (mm)																		% Norm Wall Loss		Corrosion Rates			Rem Life	Rem Life	Next	Insp
CML#	Nom	CA/Tol	SFlag	STmin	PTmin	> Tmin	Comp	Type	Pipe Size	Code	MOP	Baseline		3rd Last		2nd Last		Last		# of Insp	ST	LTn	LTi	Rem Life Date	Rem Life (yrs)	Insp Date	Insp (yrs)	Int Inspection Comments



CML Min Yrs Date

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Ser #	Inspection Dates and Thickness Values (mm)																								%																					
CML#	Nom	CA/Tol	SFlag	STmin	PTmin	> Tmin	Comp	Type	Pipe Size	Code	MOP	Baseline		3rd Last		2nd Last		Last		# of Insp	Nom Wall Loss	Corrosion Rates			Rem Life Date	Rem Life (yrs)	Next Insp Date	Insp Int (yrs)	Inspection Comments																	
												Date	Min Ave		Date	Min Ave	Date	Min Ave	Date	Min Ave			ST	LTn	LTi																					
05	13.5	13.5	6.6		6.6	6.6	Head			UG32HeadElli	655	9/23/15	13.1	13.3			11/28/17	13.0	3/30/22	12.4	13.0	3	8%	0.14	0.11		1/10/2064		3/28/2028	6.0																
10	12.7	12.7	16.0		8.0	8.0	Shell			UG27ShellInt	655	9/23/15	12.9	13.2			11/28/17	12.9	3/30/22	12.7	13.0	3	0%	0.05	0.03				3/28/2028	6.0																
15	12.7	12.7	16.0		8.0	8.0	Shell			UG27ShellInt	655	9/23/15	13.5	13.7					3/30/22	13.2	13.6	2	-4%	0.05					3/28/2028	6.0																
20	12.7	12.7	16.0		8.0	8.0	Shell			UG27ShellInt	655	9/23/15	13.4	13.6			11/28/17	13.7	3/30/22	13.5	13.7	3	-6%						3/28/2028	6.0																
25	13.5	13.5	6.6		6.6	6.6	Head			UG32HeadElli	655	9/23/15	12.3	12.5					3/30/22	11.9	12.2	2	12%	0.06		4/30/2108		3/28/2028	6.0																	
30	11.0			6.2		6.2	Nozzle	6" XS 80--(11mm)		UG45Nozzle	655	9/23/15	11.0	11.0			11/28/17	11.7	3/30/22	10.6	11.0	3	4%	0.25	0.06	7/2/2039		3/28/2028	6.0																	
32	11.0	9.6	3.3	2.8	2.8	2.8	Elbow	6" XS 80--(11mm)		API570	655	3/30/22	11.2	11.6							1	-2%						3/28/2028	6.0																	
35	11.0			6.2		6.2	Nozzle	6" XS 80--(11mm)		UG45Nozzle	655	9/23/15	10.9	11.4			11/28/17	10.9	3/30/22	10.6	11.3	3	4%	0.07	0.05	7/8/2085		3/28/2028	6.0																	
45	11.0	9.6	3.3	2.8	2.8	2.8	Elbow	6" XS 80--(11mm)		API570	655	9/23/15	11.1	11.2					3/30/22	10.9	11.3	2	1%	0.03				3/28/2028	6.0	Mixed schedules																
50	7.1	6.2	3.3	2.8	2.8	2.8	Elbow	6" STD 40--(7.1mm)		API570	655	9/23/15	6.8	7.5					3/30/22	6.7	7.0	2	6%	0.02		5/17/2276		3/28/2028	6.0																	
55	7.1	6.2	3.3	2.8	2.8	2.8	Pipe	6" STD 40--(7.1mm)		API570	655	9/23/15	7.2	7.4					3/30/22	6.3	6.5	2	11%	0.14			25.4	3/28/2028	6.0																	
60	4.5	3.9	2.0	1.8	0.5	1.8	Pipe	1" XS 80--(4.5mm)		API570	655	3/30/22	4.8	5.2							1	-7%						3/28/2028	6.0																	