

01-18-017-18W4M
2ND STG SUCTION BOTTLE
A0421912
REPORT # A#0421912_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



RESULTS OF INSPECTION:

VE Inspection:
Fit For Service. Vessel is in good visual condition.
UT Inspection:
-7% (-1.1 mm) wall loss found on Shell CML 20 Nominal: (14.3 mm) T-Previous: (16.1 mm) T-Actual: (15 mm) T-Required: (10.3 mm) CR: (.25 mm/yr) RL: (18.73 years)
-3% (-.5 mm) wall loss found on Shell CML 25 Nominal: (14.3 mm) T-Previous: (14.8 mm) T-Actual: (14.3 mm) T-Required: (10.3 mm) CR: (.12 mm/yr) RL: (35.13 years)

PRESSURE EQUIPMENT										AB-506 INTERVAL									
DISTRICT		AB - OIL & NATURAL GAS				SHELL		TUBE		Compressor Bottles in vibrating									
FACILITY		Armada Gas Plant				MAWT		300		F		GRADE							
A#		A0421912		YR		1997		MAWP		1000				psi					
SERIAL #					PSV		655				psi								
CRN		N6380.2				PSV CRN		01832.568											
EQUIP#					SERVICED		9/9/2020												
STATUS		IN SERVICE				UNIT		K301											
MANUFACTURER		BIMAC INDUSTRIES LTD.								INSPECTION TYPE									
VE		VI		MT		PT		ET		UT									
X										X									
MANUFACTURER										INSPECTION RESULT:									
DH LSD										NCR-OPERATIONS									
L										3		Ft		OD		1.07		Ft	
REPAD			UNIQUE ID							NCR-REGULATORY/ADMIN									
										ACTION ITEM RAISED									
										REPAIR REQUIRED									
										SUITABLE FOR SERVICE					X				
										RECOMMENDATIONS:									
										VE Inspection: No Recommendations from the External Inspection.									

(15 mm) T-Required: (10.3 mm) CR: (.25 mm/yr) RL: (18.73 years)

(4.3 mm) T-Required: (10.3 mm) CR: (.12 mm/yr) RL: (35.13 years)

SIGN OFF		API 510	EXP.	IPV	EXP.	INSPECTOR - PRIMARY	INSPECTOR - REVIEW	CLIENT SIGN OFF
INSPECTED BY	ToddM Mckenzie	97445	12/31/202	00133	7/13/2026			
REVIEWED BY	Ashley Rustebakke	60285	7/31/2024	966	6/16/2026			

Ultrasonic Report

LSD 01-18-017-18W4M

DH-LSD

Jurisdiction # A0421912

Serial #

Ultrasonic Report #: A#0421912_GRADY INSPECTION LTD VE UT INSP_30MAR2022

Date

3/30/2022

Facility

Armada Gas Plant

Field


Red Deer District

Phone:403-793-7697

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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 COMPRESSOR BOTTLE										
LIMITATIONS		Previous ultrasonic inspection data not obtained by Grady Inspection Ltd.										
RESULTS		-7% (-1.1 mm) wall loss found on Shell CML 20 Nominal: (14.3 mm) T-Previous: (16.1 mm) T-Actual: (15 mm) T-Required: (10.3 mm) CR: (.25 mm/yr) RL: (18.73 years) -3% (-.5 mm) wall loss found on Shell CML 25 Nominal: (14.3 mm) T-Previous: (14.8 mm) T-Actual: (14.3 mm) T-Required: (10.3 mm) CR: (.12 mm/yr) RL: (35.13 years)										

Technician Name	Certification Body	Certification #	Expiry	Technician Signature			
3 ToddM	CGSB	9234					
				Client Name	Dustin Rumohr	Company Name	CNRL
				Client Signature			

External Inspection - (Vessel)		Date	3/30/2022	Phone:403-793-7697 8 Sarah King Crt E Brooks, Alberta, T1R 0J8 grady.rustebakke@gmail.com	
LSD	01-18-017-18W4M	Facility	Armada Gas Plant		
DH-LSD		Field	Red Deer District		
Jurisdiction #		A0421912			

Fit For Service:	Fit For Service.
Inspection Summary:	Vessel is in good visual condition.
Recommendations:	No Recommendations from the External Inspection.

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:	Good	Anchor bolts fully engaged Building is secure Concrete is intact with no visible deficiencies
Shell:.	Good	No notable mechanical damage, areas of wear/fretting, distortion, misalignment or visible weld defects.
Saddles / Skirts:	Good	Saddle is in good visual condition
Grounding:	Good	Ground Wire is secure Grounded through piping system
Gauges and Instrumentation:	Good	<div>Shell Gauge (- @)</div> <div>Temp Gauge (50 - 300 @ 70 F)</div> <div>No mechanical pressure gauge. Gauge is clear, colorless and correct for the MAWT. Compressor is digitally monitored for pressure and temperature.</div>
Pressure Protection:	Good	The PSV Set Pressure (655 psi) is suitable for the MAWP (1000 psi)
NDE Summary:	Fair	-7% (-1.1 mm) wall loss found on Shell CML 20 Nominal: (14.3 mm) T-Previous: (16.1 mm) T-Actual: (15 mm) T-Required: (10.3 mm) CR: (.25 mm/yr) RL: (18.73 years)
Manway Davits/Quick Closure:	N/A	No Manway
Nameplate:	Good	Nameplate is legible and readily accessible and securely affixed
Code Variance:		

PSV Data

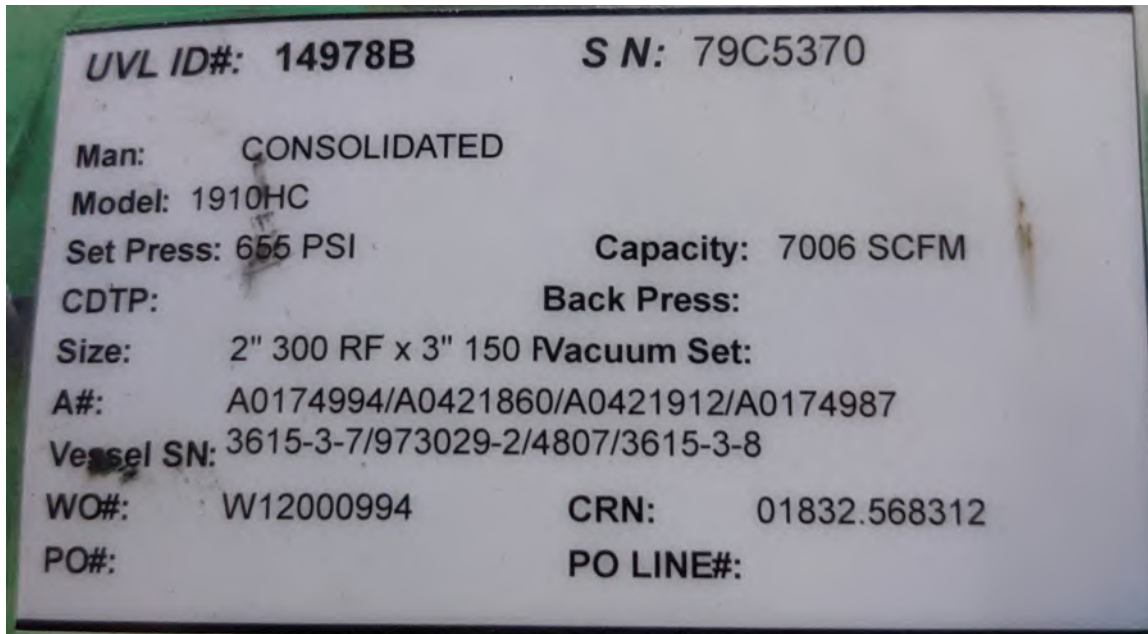
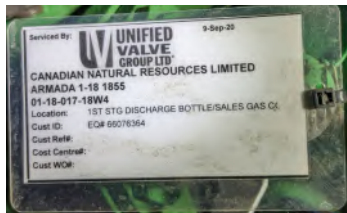
LSD

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 A0421912

SHELL

TUBE

MAWP

1000

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

OUTLET

3

N

PSV COMMENTS

Overview Photo

LSD 01-18-017-18W4M
Jur # A0421912
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Date

3/30/2022

FACILITY

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**Nameplate****Overview****Alternate Overview**

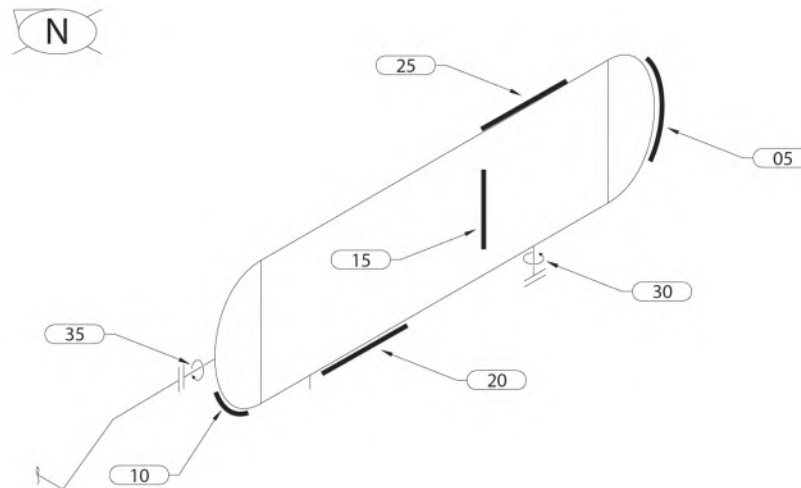
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Ser #

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



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LSD 01-18-017-18W4M FACILITY Armada Gas Plant
DH-LSD FIELD Red Deer District
Jur # A0421912 DWG 1 Location:
Ser #

Phone:403-793-7697

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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	14.0	13.9		8.5		8.5	8.5	Head	UG32HeadElli	1000		5/18/07	15.2	15.5			11/28/17	15.5		3/30/22	14.9	15.5	4	-7%	0.14	0.02				3/28/2028	6.0		
10	14.3	14.2		20.6		10.2	10.2	Shell	UG27ShellInt	1000		5/18/07	15.3	15.6			11/28/17	15.6		3/30/22	15.0	15.5	4	-5%	0.14	0.02				3/28/2028	6.0		
15	14.3	14.2		20.6		10.2	10.2	Shell	UG27ShellInt	1000		9/23/15	15.7	16.0			11/28/17	15.7		3/30/22	15.2	15.5	4	-6%	0.12	0.08				3/28/2028	6.0		
20	14.3	14.2		20.6		10.2	10.2	Shell	UG27ShellInt	1000		11/28/17	16.1	16.5						3/30/22	15.0	15.3	2	-5%	0.25				18.7	3/28/2028	6.0		
25	14.3	14.2		20.6		10.2	10.2	Shell	UG27ShellInt	1000		11/28/17	14.8	15.4						3/30/22	14.3	14.8	2	-0%	0.12				35.1	3/28/2028	6.0		
30	18.2				6.2		6.2	Nozzle	6" -- 160--(18.2mm)	UG45Nozzle	1000		9/23/15	19.3	18.2			11/28/17	19.1		3/30/22	18.3	18.8	3	-1%	0.18	0.15				3/28/2028	6.0	
35	18.2				6.2		6.2	Nozzle	6" -- 160--(18.2mm)	UG45Nozzle	1000		9/23/15	19.1	19.2			11/28/17	19.3		3/30/22	18.2	18.5	3	0%	0.25	0.14				3/28/2028	6.0	