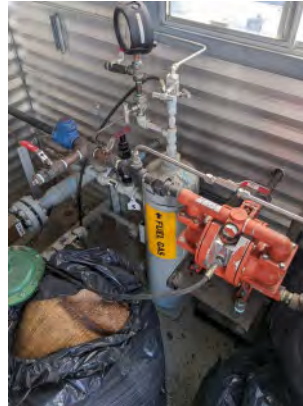


01-18-017-18W4M
FUEL GAS SEPARATOR
89N00543C65698
REPORT # 89N00543_GRADY INSPECTION LTD VE UT INSP_1APR2022

DATE 4/1/2022
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. NCR. No CRN on PSV nameplate.
Year built is assumed
PSV discharges 24" from ground
UT Inspection:
No corrosion was found with the ultrasonic inspection.

PRESSURE EQUIPMENT										AB-506 INTERVAL																								
DISTRICT					SHELL					TUBE					Fuel gas scrubbers																			
FACILITY					MAWT					100					F																			
A#					YR					1990 <th colspan="5">MAWP</th> <td colspan="5">150</td> <td colspan="5"></td> <td colspan="5">psi</td>					MAWP					150										psi				
SERIAL #					SN 89N00543										PSV					150										psi				
CRN					H-0582.123										PSV CRN					0G0321.23														
EQUIP#															SERVICED					4/19/2021														
STATUS					IN SERVICE <th colspan="5">UNIT</th> <td colspan="5">Refridge</td> <td colspan="6"></td>					UNIT					Refridge																			
MANUFACTURER										NUSCO PIPE & SUPPLY LTD										INSPECTION TYPE														
DH LSD										L 2.5 Ft OD .67 Ft										VE		VI		MT		PT		ET		UT				
REPAD										0		UNIQUE ID C65698										X								X				
																				INSPECTION RESULT:														
																				NCR-OPERATIONS				X										
																				NCR-REGULATORY/ADMIN														
																				ACTION ITEM RAISED														
																				REPAIR REQUIRED														
																				SUITABLE FOR SERVICE				X										
																				RECOMMENDATIONS:														
																				VE Inspection: Confirm PSV CRN. Confirm year built Consider installing downward elbow on PSV discharge line to direct away from passersby														

Ultrasonic Report

LSD01-18-017-18W4M

DH-LSD

Juristiction #

Serial #SN 89N00543

Ultrasonic Report #: 89N00543_GRADY INSPECTION LTD VE UT INSP_1APR2022

Date

3/30/2022

Facility

Armada Gas Plant

Field

Red Deer District

Phone: 403-793-7697

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GRADY

INSPECTION LTD

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 FUEL GAS SEPARATOR										
LIMITATIONS		Previous ultrasonic inspection data not obtained by Grady Inspection Ltd.										
RESULTS		No corrosion was found with the ultrasonic inspection.										

Technician Name

3 ToddM

Certification Body


CGSB

Certification #

9234

Expiry

Technician Signature




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 #					

Fit For Service:	Fit For Service.
Inspection Summary:	NCR. No CRN on PSV nameplate. Year built is assumed PSV discharges 24" from ground
Recommendations:	Confirm PSV CRN. Confirm year built Consider installing downward elbow on PSV discharge line to direct away from passersby

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. Paint is intact and well adhered to the vessel. Vessel is indoors.
Insulation / Cladding:	N/A	Non insulated vessel
Nozzles, Piping and Connections:	Good	Number of nozzles repaded: 0 Number of nozzles without repad: 0 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	Welds secure Building is secure Building on planks.
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	Grounded through piping system
Gauges and Instrumentation:	Fair	Shell Gauge (0 - 100 @ 58 psi) Temp Gauge (- @) Gauge is not suitable for MAWP nor PSV set pressure
Pressure Protection:	Fair	The PSV Set Pressure (150 psi) is suitable for the MAWP (150 psi) No CRN on PSV nameplate PSV discharge pipe is 24" from ground, recommend installing upward elbow and pipe.
NDE Summary:	Good	No corrosion was found with the ultrasonic inspection.
Manway Davits/Quick Closure:	N/A	No Manway
Nameplate:	Fair	Nameplate is legible and readily accessible and securely affixed

External Inspection - (Vessel)
LSD 01-18-017-18W4M
DH-LSD
Juristiction #

Date	3/30/2022
Facility	Armada Gas Plant
Field	Red Deer District

Phone: 403-793-7697

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Year built is not on data plate.

Code Variance:

PSV Data
LSD

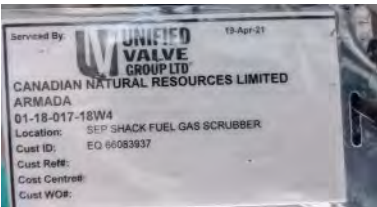
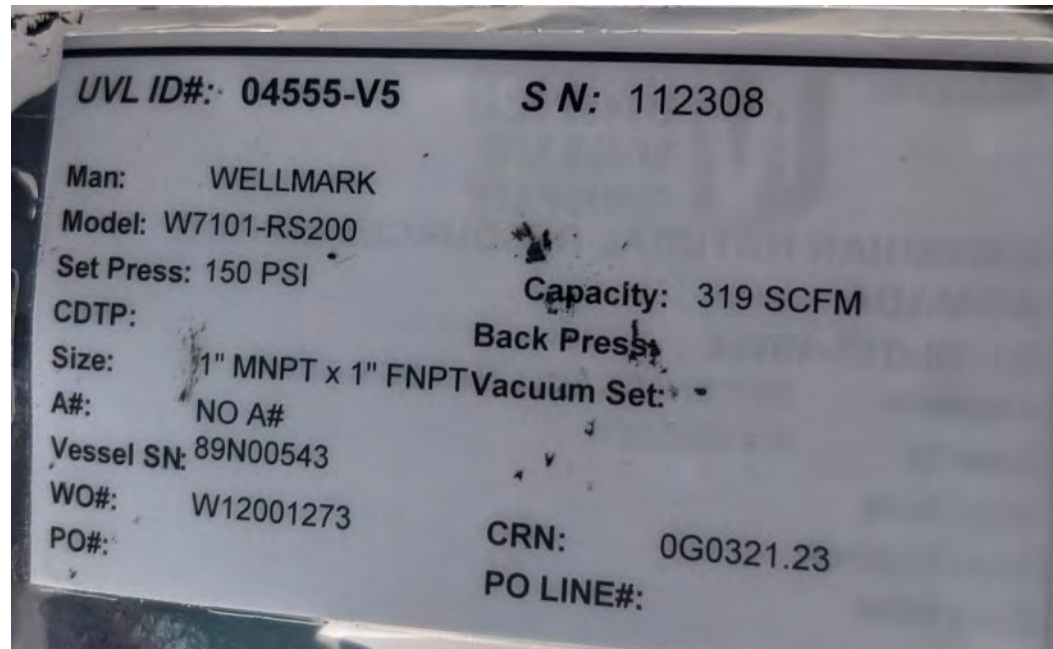
01-18-017-18W4M

FACILITY Armada Gas Plant

FIELD Red Deer District

Phone: 403-793-7697

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GRADY
 INSPECTION LTD

ASSOCIATED PRESSURE EQUIPMENT DATA
PV JUR/SER SN 89N00543

	SHELL	TUBE
MAWP	150	psi

PSV FIT FOR SERVICE STATEMENT

Fit For Service.

PSV STATIC DATA
MODEL W7101-RS200

SERIAL 112308

MANUFACTURER Wellmark

TAG 04555-V5

CRN 0G0321.23

SEAL Y

SET PRES 150 psi

CAPACITY 319 SCFM

SERVICE DATE 4/19/2021

SERVICE COMPANY Unified Valve Group

T/F	UV	NB
T	UV	NB

	SIZE	B VALVE	CARSEAL
INLET	1	N	
OUTLET	1	N	

PSV COMMENTS

Overview Photo

LSD 01-18-017-18W4M
Jur #
Serial # 89N00543

Date

4/1/2022

FACILITY

Armada Gas Plant

FIELD

Red Deer District

Phone: 403-793-7697

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GRADY
INSPECTION LTD



Nameplate



Overview



Pressure Gauge

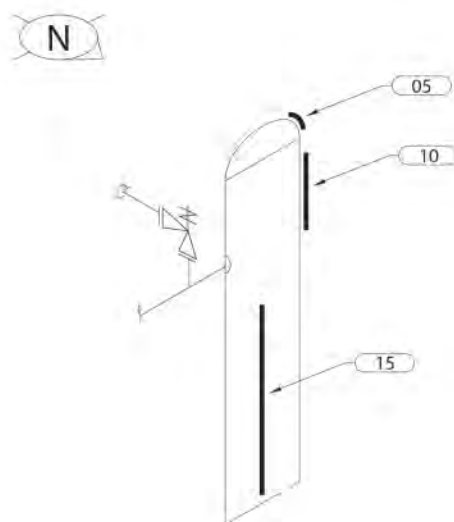
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Jur # **DWG** 1 **Location:**

Ser # SN 89N00543

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	Next	Insp		
											Date	Min Ave	Date	Min Ave	Date	Min Ave	Date	Min Ave			ST	Ltn	LTI	Date	(yrs)	Insp Date	(yrs)	Inspection Comments



CML	Min	Yrs	Date
-----	-----	-----	------

Nominal (mm)	Pipe Tolerance 12% (mm) Corrosion Allowance (mm)	API 574 Table 7 Flag Tmin	Pressure Tmin Structural Tmin
-----------------	---	------------------------------	----------------------------------

%Nom	10-20	20-30
-UT	30-50	>50

Cor. Rates (mm/yr)	0.025 - 0.25	0.26 - 0.5
	0.501 - 1	>1.0

Calculated Failure (years)	3-5	2-3
	1-2	< 1

REPORT # 89N00543 GRADY INSPECTION LTD VE UT INSP_1APR2022
LSD 01-18-017-18W4M FACILITY Armada Gas Plant
DH-LSD FIELD Red Deer District
Jur # DWG 1 Location:
Ser # SN 89N00543

Phone: 403-793-7697

8 Sarah King Crt E Brooks, Alberta, T1R 0J8
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Ser #	SN 89N00543						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	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	Date							
05	8.2	8.1	1.3		1.3	1.3		Head		UG32HeadElli	150	4/3/14	9.4			11/30/17	9.7			4/1/22	9.4	10.0	3	-15%					3/29/2032	10.0		
10	8.2	8.1	2.7		1.3	1.3		Shell		UG27ShellInt	150	4/3/14	8.3			11/30/17	8.2			4/1/22	7.9	8.2	3	3%	0.07		0.05	6/9/2117		3/29/2032	10.0	
15	8.2	8.1	2.7		1.3	1.3		Shell		UG27ShellInt	150	11/30/17	8.5	8.6						4/1/22	8.1	8.3	2	1%	0.09					3/29/2032	10.0	