

01-18-017-18W4M

Propane Scrubber

C250470A-2C87381

REPORT # C250470A-2_GRADY INSPECTION LTD VE UT INSP_1APR2022

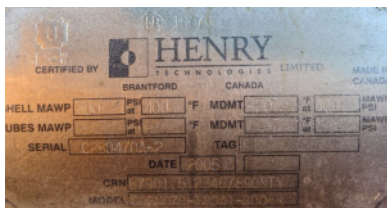
DATE

4/1/2022

CLIENT

CNRL

Phone:403-793-7697

8 Sarah King Crt E Brooks, Alberta, T1R 0J8
grady.rustebakke@gmail.com**GRADY**
INSPECTION LTD**RESULTS OF INSPECTION:**

VE Inspection:
Fit For Service. NCR. Inlet and discharge block valves have ineffective carseals.
UT Inspection:
10% (.5 mm) wall loss found on Nozzle CML 40 T-Nominal: (5.2 mm) T-Actual: (4.7 mm) T-Required: (4.5 mm) CR: .03RL: (6.21 years)

PRESSURE EQUIPMENT

DISTRICT	AB - OIL & NATURAL GAS		SHELL	TUBE
FACILITY	Armada Gas Plant	MAWT	400	F
A#	YR 2005	MAWP	400	psi
SERIAL #	C250470A-2	PSV	300	psi
CRN	L7901.5123467890NT	PSV CRN	0G7155.5C	
EQUIP#		SERVICED	4/11/2022	
STATUS	IN SERVICE	UNIT	Refridge Comp	
MANUFACTURER	HENRY TECHNOLOGIES LIMITED			
DH LSD		L	2.5 Ft	OD 1.06 Ft
REPAD	0	UNIQUE ID	C87381	

AB-506 INTERVAL

Upstream pressure vessels not

GRADE	YEARS			REG
	Equip	PSV	UT	
3	10	6		X

INSPECTION TYPE

VE	VI	MT	PT	ET	UT
X					X

INSPECTION RESULT:**NCR-OPERATIONS****NCR-REGULATORY/ADMIN****ACTION ITEM RAISED****REPAIR REQUIRED****SUITABLE FOR SERVICE**

X

RECOMMENDATIONS:

VE Inspection:
Ensure carseals inhibit valve movement

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		Date	3/25/2022	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 #					
Serial #	C250470A-2				
Ultrasonic Report #: C250470A-2_GRADY INSPECTION LTD VE UT INSP_1APR2022					

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 Propane Coalescer										
LIMITATIONS		Evaluation with Minimal Documentation Assumed SA-283 Grade C as per API 510 7.7 3. Nominal assumed based on UT readings.										
RESULTS		10% (.5 mm) wall loss found on Nozzle CML 40 T-Nominal: (5.2 mm) T-Actual: (4.7 mm) T-Required: (4.5 mm) CR: .03RL: (6.21 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	3/25/2022	Phone:403-793-7697	
LSD	01-18-017-18W4M	Facility	Armada Gas Plant	8 Sarah King Crt E Brooks, Alberta, T1R 0J8 grady.rustebakke@gmail.com	
DH-LSD		Field	Red Deer District		
Juristiction #					

Fit For Service:	Fit For Service.
Inspection Summary:	NCR. Inlet and discharge block valves have ineffective carseals.
Recommendations:	Ensure carseals inhibit valve movement

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: 2 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. No notable external corrosion, mechanical damage, areas of wear/fretting, distortion, misalignment, current leaks, or visible weld defects.
Saddles / Skirts:	Good	Vessel is mounted in piping string by flange bolting.
Grounding:	Good	Ground Wire is secure Grounded through piping system
Gauges and Instrumentation:	Good	<div>Shell Gauge (- @)Temp Gauge (- @)</div> <div>Compressor is digitally monitored for pressure and temperature. No gauges found.</div>
Pressure Protection:	Fair	The PSV Set Pressure (300 psi) is suitable for the MAWP (400 psi) PSV has inlet and outlet block valves, valves are carsealed, how ever still allow full function of valve with out the removal of car seals.
NDE Summary:	Fair	10% (.5 mm) wall loss found on Nozzle CML 40 T-Nominal: (5.2 mm) T-Actual: (4.7 mm) T-Required: (4.5 mm) CR: .03RL: (6.21 years)
Manway Davits/Quick Closure:	N/A	No Manway
Nameplate:	Good	Nameplate is legible and readily accessible and securely affixed

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

Date
Facility
Field

3/25/2022
Armada Gas Plant
Red Deer District

Phone:403-793-7697

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Code Variance:

PSV Data

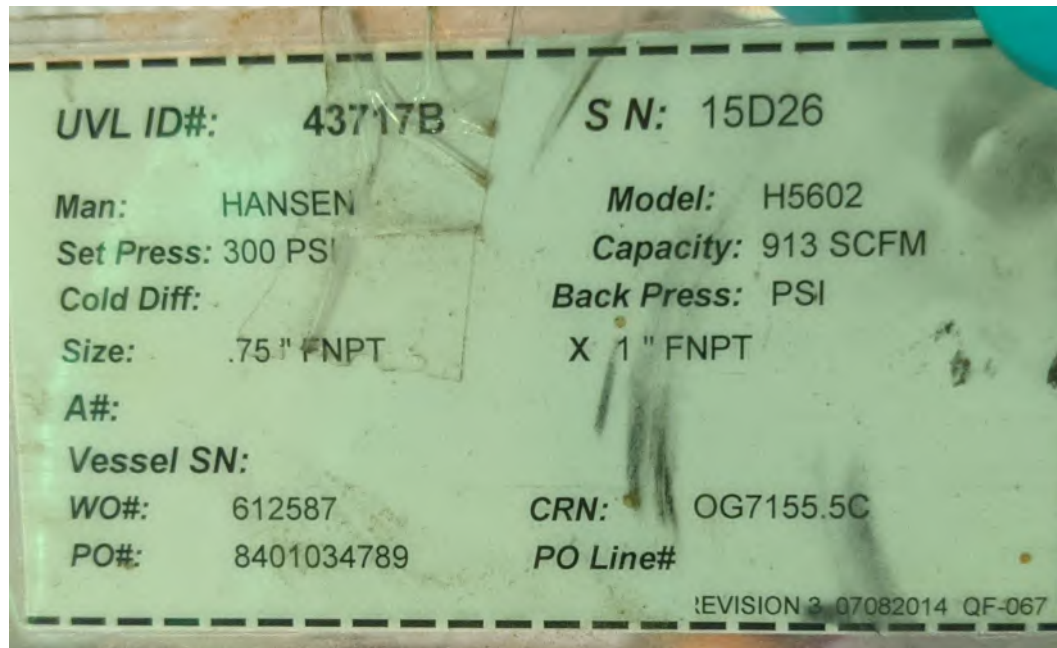
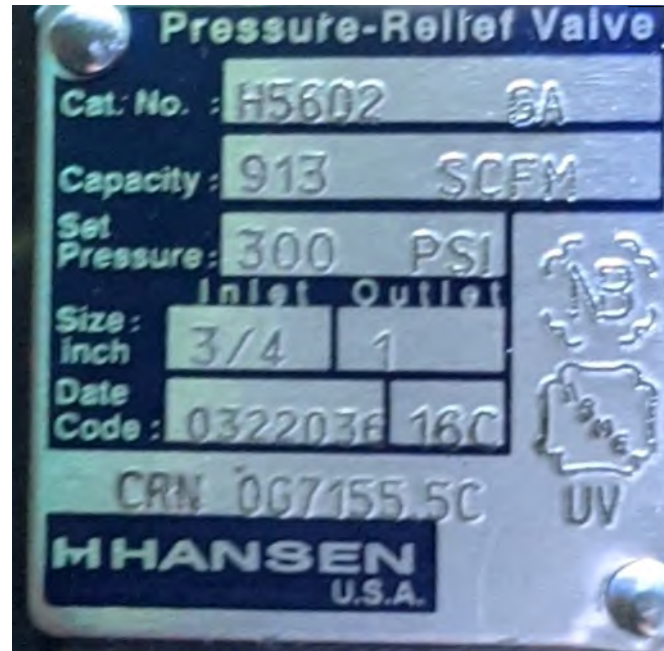
LSD

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FACILITY Armada Gas Plant

FIELD Red Deer District

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INSPECTION LTD

ASSOCIATED PRESSURE EQUIPMENT DATA

PV JUR/SER C250470A-2

SHELL TUBE

MAWP 400 psi

PSV FIT FOR SERVICE STATEMENT

Fit For Service.

PSV STATIC DATA

MODEL H5602

SERIAL 15D26

MANUFACTURER HANSEN

TAG 43717B

CRN OG7155.5C

SEAL Y

SET PRES 300 psi

CAPACITY 913 SCFM

SERVICE DATE 4/11/2022

SERVICE COMPANY Unified Valve Group

T/F UV NB

T UV NB

SIZE B VALVE CARSEAL

INLET .75 Y Y

OUTLET 1 Y Y

PSV COMMENTS

Inlet and Outlet Block valves ineffective.

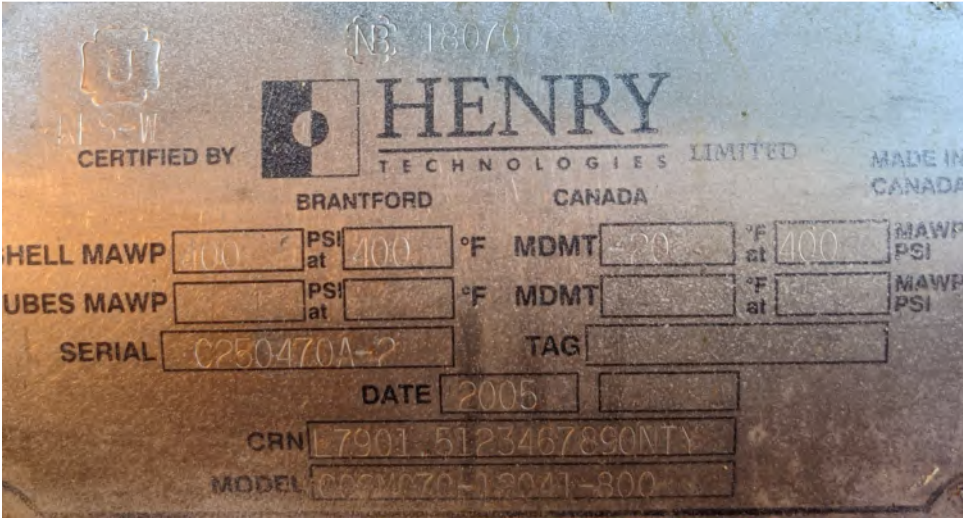
Overview Photo

LSD 01-18-017-18W4M
Jur #
Serial # C250470A-2

Date	4/1/2022
FACILITY	Armada Gas Plant
FIELD	Red Deer District

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Nameplate



Overview



Block Valve



Block Valve

Phone:403-793-7697

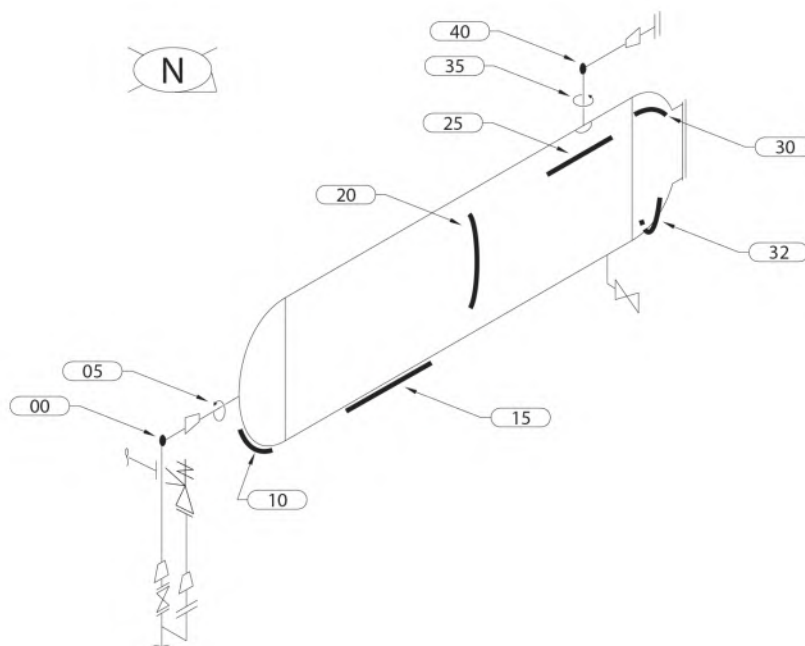
FACILITY Armada Gas Plant

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DWG 1

Location:

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



CML	Min	Yrs	Date
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Nominal (mm)	Pipe Tolerance 12% (mm) Corrosion Allowance (mm)	API 574 Table 7 Flag Tmin	Pressure Tmin Structural Tmin
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%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

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DH-LSD FIELD Red Deer District
Jur # DWG 1 Location:
Ser # C250470A-2

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Ser #	C250470A-2						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						
00		5.5			4.8		4.8	Nozzle	3" STD 40--(5.5mm)	UG45Nozzle	400	4/1/22	5.4	5.8							1	2%	0.01			9/22/2125		3/29/2032	10.0	
05		7.0			5.4		5.4	Nozzle	2.5" XS 80--(7mm)	UG45Nozzle	400	11/28/17	6.8	7.1				4/1/22	6.9	7.3	2	1%								
10		8.5	8.5		5.6		5.6	Head		UG32HeadElli	400	4/3/14	8.0			11/28/17	7.8	4/1/22	7.8	8.3	3	8%						3/29/2032	10.0	
15		9.2	9.2		11.3		5.7	Shell		UG27ShellInt	400	4/3/14	9.1			11/28/17	9.0	4/1/22	9.1	9.3	3	1%						3/29/2032	10.0	
20		9.2	9.2		11.3		5.7	Shell		UG27ShellInt	400	11/28/17	8.9	9.2				4/1/22	9.0	9.2	2	2%								
25		9.2	9.2		11.3		5.7	Shell		UG27ShellInt	400	11/28/17	9.0	9.2				4/1/22	9.1	9.3	2	1%								
30		8.5	8.5		5.6		5.6	Head		UG32HeadElli	400	11/28/17	8.3	8.3				4/1/22	8.2	8.6	2	4%	0.02			6/26/2135		3/29/2032	10.0	
32		8.5	8.5		5.6		5.6	Head		UG32HeadElli	400	4/1/22	8.1	8.5						1	5%	0.02			6/10/2130		3/29/2032	10.0		
35								Nozzle	2.5" XS 80--(7mm)	UG45Nozzle	400																			Not scanned
40		5.2			4.5		4.5	Nozzle	2.5" STD 40--(5.2mm)	UG45Nozzle	400	4/1/22	4.7	5.3						1	10%	0.03			6/15/2028	6.2	5/8/2025	3.1		