

01-18-017-18W4M  
1ST STAGE COOLER  
A0421860  
REPORT # A#0421860\_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. Bolt Missing on SW corner of Head  
UT Inspection:  
No corrosion was found with the ultrasonic inspection.


PRESSURE EQUIPMENT							AB-506 INTERVAL							
DISTRICT	AB - OIL & NATURAL GAS				SHELL	TUBE		Air cooled heat exchangers						
FACILITY	Armada Gas Plant			MAWT	200		F	GRADE						
A#	A0421860		YR	1997	MAWP	1350		psi	YEARS					
SERIAL #				PSV	655			psi	Equip		PSV	UT	REG	
CRN	N6257.2			PSV CRN	01832.568				3					
EQUIP#				SERVICED	9/9/2020				10					
STATUS	IN SERVICE			UNIT	3303 (301)			INSPECTION TYPE						
MANUFACTURER	PROCESS ENERGY TECHNOLOGIES						VE	VI	MT	PT	ET	UT		
DH LSD				L	Ft	OD	Ft	X					X	
REPAD	UNIQUE ID						INSPECTION RESULT:							
							NCR-OPERATIONS							
							NCR-REGULATORY/ADMIN							
							ACTION ITEM RAISED						X	
							REPAIR REQUIRED							
							SUITABLE FOR SERVICE						X	
							RECOMMENDATIONS:							
							VE Inspection: Replace Bolt							

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>	3/30/2022	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> A0421860					
<b>Serial #</b>					
<b>Ultrasonic Report #:</b> A#0421860_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 AERIAL COOLER										
LIMITATIONS		Previous ultrasonic inspection data not obtained by Grady Inspection Ltd.										
RESULTS		No corrosion was found with the ultrasonic inspection.										

<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>			
				<b>Client Signature</b>			

<b>External Inspection - (Vessel)</b>		<b>Date</b>	3/30/2022	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>		A0421860			

<b>Fit For Service:</b>	Fit For Service.
<b>Inspection Summary:</b>	Bolt Missing on SW corner of Head
<b>Recommendations:</b>	Replace Bolt

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.
Insulation / Cladding:	N/A	Non insulated vessel
Nozzles, Piping and Connections:	Fair	Bolt Missing on SW corner of Head
Buried Vessels:	N/A	Above Ground
Ladders, Platforms and Walkways:	Good	Building secure on pilings
Foundations and Supports:	Good	Anchor bolts fully engaged
Shell:.	Good	No notable mechanical damage, areas of wear/fretting, distortion, misalignment or visible weld defects.
Saddles / Skirts:	Good	Saddles are bolted
Grounding:	Good	Ground Wire is secure Grounding is achieved through the skid.
Gauges and Instrumentation:	Good	<div>Shell Gauge ( - @ )      Temp Gauge ( - @ )</div> <div>Vessel is digitally monitored</div>
Pressure Protection:	Good	The PSV Set Pressure ( 655 psi) is suitable for the MAWP ( 1350 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:		





Overview Photo

LSD 01-18-017-18W4M  
Jur # A0421860  
Serial #

Date

3/30/2022

FACILITY

Armada Gas Plant

FIELD

Red Deer District

Phone: 403-793-7697

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**GRADY**  
INSPECTION LTD



Nameplate



Overview



Alternate Overview



Missing Bolt

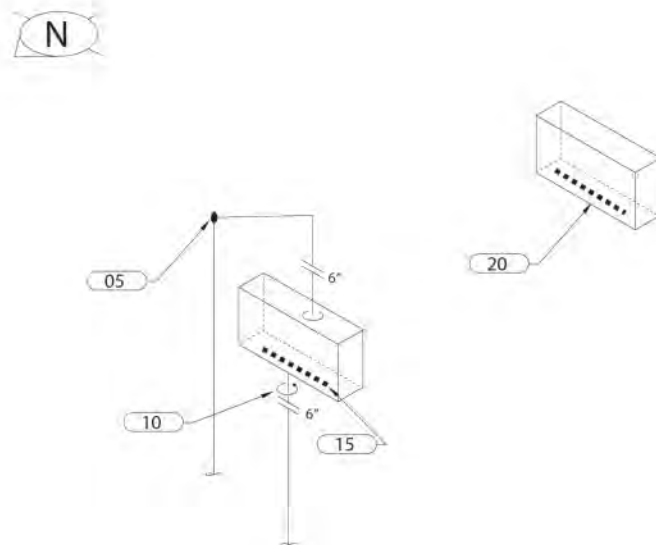
Phone: 403-793-7697

**GRADY**  
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**Ser #**

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		% Nom Wall Loss	Corrosion Rates			Rem Life	Rem Life (yrs)	Next Insp Date	Insp (Int)	Inspection Comments
											Date	Min Ave	Date	Min Ave	Date	Min Ave	Date	Min Ave	Date	Min Ave	# of Insp	ST	LtN	LTI	Date	(yrs)					



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LSD 01-18-017-18W4M FACILITY Armada Gas Plant  
DH-LSD FIELD Red Deer District  
Jur # A0421860 DWG 1 Location:  
Ser #

Phone: 403-793-7697

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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	Min Ave	Date	Min Ave	Date	Min Ave	ST	LTn			LTi							
05		0.0			0.0	0.0	Elbow	66" XS 80--(11mm)	API570	1350	11/28/17	11.9	11.9				3/30/22	11.0	11.5	2		0.21				3/27/2032	10.0		
10							Nozzle	66" XS 80--(11mm)	UG45Nozzle	1350	11/28/17	11.8	12.0				3/30/22	10.7	11.1	2		0.25				3/27/2032	10.0		
15	0.0	0.0	0.0		0.0	0.0	Shell		UG27ShellInt	1350	11/28/17	32.5	32.6				3/30/22	32.0	32.3	2		0.12				3/27/2032	10.0		
20	0.0	0.0	0.0		0.0	0.0	Shell		UG27ShellInt	1350	11/28/17	32.6	33.1				3/30/22	32.0	32.3	2		0.14				3/27/2032	10.0		