

CEL Quality Services Ltd.

VISUAL INSPECTION

Tel: (403) 845-5881 • (403) 844-3341



Pressure Equipment Inspection

REPORT

Report#: A0618277-VE,UT-2022-03-28

Type of Inspection:		<input type="checkbox"/> INSTALLATION		<input checked="" type="checkbox"/> EXTERNAL		<input type="checkbox"/> INTERNAL		<input type="checkbox"/> IN SERVICE		<input checked="" type="checkbox"/> OUT OF SERVICE		<input type="checkbox"/> INVENTORY					
Date:	28/Mar/2022		Job #:														
Inspected By:	Ben Piers		CEL Job #:														
Client:	Pipestone Energy Corp.				*all measurements are in inches unless otherwise stated *ns-not stated *na-not applicable Pre Purchase Inspection PO# E22-191-PO-01 Service PSV prior to returning to service												
Owner:	Pipestone Energy Corp.																
Region:	Alberta																
Area:	Sunchild	Location/ LSD:	Surface:	01-04-044-11w5													
Facility:	Compressor		UWI/DH:														
Service:	Sweet	if other describe:															
Description:	<input checked="" type="checkbox"/> Vessel <input type="checkbox"/> Exchanger <input type="checkbox"/> Tank <input type="checkbox"/> Furnace <input type="checkbox"/> Boiler																
Unit #:	BU-640		Equip #:		V-302												
Equip. Name:	Glycol Flash Tank		Equip. Type:		Separator with no MW												
Jurisdiction #:	0618277		CRN:		V-7651.2												
Manufacturer:	Alco Gas & Oil Production Equipment LTD.								Diameter OD (in):		24		Height/Length (in):		72		
Serial No.:	2011-8267-09		Year Built:		2012		<input checked="" type="checkbox"/> PSV on Vessel		<input type="checkbox"/> Piping								
Volume:	ns		PSV Data:		<input type="checkbox"/> Isolation Valve(s) Installed		<input type="checkbox"/> Car-sealed		<input type="checkbox"/> CRN:								
Zones:	MAWP	Des. T	MDMT	Op.P	Op.T	Set P	Tag #	Manufacturer	Serial No.	In	Out	Capacity	Serv. Co.	Serv. Date			
Shell Side:	250	200	-20	0	68	250	27053R	Crosby	C11-6052.9	1.5	2	1591	RMV	Apr. 13, 2015			
Coil Side:	na	na	na														
Units	PSI	F	F	PSI	F	PSI						scfm					
Components:	Material	Nominal (in)	Sgl./Dbl/ Weld	Calc. Trim	Retire t	CA (in)	UT TML	Lowest t	Acc.	Ret.	Dia. (OD),(in)	RT	HT				
Shell:	SA-516-70MT	0.375				0.125	10	0.391	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24	1	Yes				
Head:	SA-516-70MT	0.3				0.125	20	0.359	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24						
Tube/Coil:									<input type="checkbox"/>	<input type="checkbox"/>							
Channel:									<input type="checkbox"/>	<input type="checkbox"/>							
Other									<input type="checkbox"/>	<input type="checkbox"/>							
Manway/Port:	Port		Size (in): 3		<input type="checkbox"/> Davit Arm Present		<input type="checkbox"/> Davit Arm Greased		<input type="checkbox"/> Double Nitted		Condition:						
Nozzles:	<input type="checkbox"/> Reinforcement pads used		<input type="checkbox"/> Weep Holes Present		Comment: None												
	<input checked="" type="checkbox"/> Piping well supported		<input checked="" type="checkbox"/> Joining as per code		Comment: Secure and intact												
Piping:	<input checked="" type="checkbox"/> PSV Piping		<input checked="" type="checkbox"/> Drains properly		<input checked="" type="checkbox"/> Well coated		Comment: Secure										
	<input checked="" type="checkbox"/> Inlet Piping		<input checked="" type="checkbox"/> Free from leaks		<input checked="" type="checkbox"/> Well coated		Comment: Secure										
	<input checked="" type="checkbox"/> Outlet Piping		<input checked="" type="checkbox"/> Free from leaks		<input checked="" type="checkbox"/> Well coated		Comment: Secure										
	<input checked="" type="checkbox"/> Drain Piping		<input checked="" type="checkbox"/> Free from leaks		<input checked="" type="checkbox"/> Well coated		Comment: Secure										
	<input checked="" type="checkbox"/> Instrumentation Piping		<input checked="" type="checkbox"/> Free from leaks/kinks		Comment: Secure and intact												
Valves:	<input checked="" type="checkbox"/> Manual Isolation Valve		<input checked="" type="checkbox"/> Free from leaks		Comment: Acceptable, no leaks noted												
	<input checked="" type="checkbox"/> Automated Control Valve		<input checked="" type="checkbox"/> Free from leaks		Comment: Acceptable, no leaks noted												
	<input checked="" type="checkbox"/> Vents and Drains Plugged		Comment: Acceptable, no leaks noted														
Gauges:	<input checked="" type="checkbox"/> Pressure		Condition:		Clear and intact x1												
	<input checked="" type="checkbox"/> Temperature		Condition:		Clear and intact x1												
Sight Glass:	<input checked="" type="checkbox"/> Fluid Level		Condition:		Clear and intact x2												
Orientation:	Vertical		Foundation:		<input type="checkbox"/> Concrete		<input type="checkbox"/> Gravel		<input type="checkbox"/> Timber		<input checked="" type="checkbox"/> Steel		<input type="checkbox"/> Other:		Condition: Skid secure and level on piles		
Support:	<input type="checkbox"/> Saddle		<input type="checkbox"/> Seal-welded		<input type="checkbox"/> Free to move		Condition:										
	<input checked="" type="checkbox"/> Skirt		<input checked="" type="checkbox"/> Free of debris		Comment:		Bolted to skid floor										
	<input type="checkbox"/> Hangers		<input type="checkbox"/> Secure		Comment:		Condition:										
	<input type="checkbox"/> Other		Specify:		Electrical Grounding:												
Overall:	General condition:		Suitable for continued service		Condition: Acceptable												
Ext. Surface:	<input checked="" type="checkbox"/> Painted		<input type="checkbox"/> Insulated		<input type="checkbox"/> Fire-proofed		<input type="checkbox"/> Cladded		<input type="checkbox"/> Other:		Condition: Paint is acceptable, grey						
Ext. Fixtures:	<input type="checkbox"/> Ladder		<input type="checkbox"/> Platform(s)		<input type="checkbox"/> Other:		Condition: None										
Int. Surface:	<input type="checkbox"/> Coated		<input type="checkbox"/> Lined		<input type="checkbox"/> Thermal sprayed		<input type="checkbox"/> Cladded		<input type="checkbox"/> Welded overlay		Condition: External Inspection Only						
Int. Fixtures:	<input type="checkbox"/> Baffle		<input type="checkbox"/> Float		<input type="checkbox"/> Impingement		<input type="checkbox"/> Weir		<input type="checkbox"/> Vortex Breaker		Condition: External Inspection Only						
Recommended Actions:														NCR#:			
Service the PSV prior to returning to service.																	
Summary Comment:		Vessel found to be acceptable for service.						Inspection interval:		Set by Chief Inspector							
Additional notes on continuation page:		<input checked="" type="checkbox"/>		Report No.		See next page		Quality Check:									
Equipment is suitable for continued service:		<input checked="" type="checkbox"/>						Signature of Inspector:		Ben Piers							
Inspector Certificate No:		IPV #000770						Received by: (print)									
Terms and Conditions: Refer to "Scope of Services" and "Standard of Care"								Received by: (sign)									

ULTRASONIC SURVEY REPORT

Report #: A0618277-VE,UT-2022-03-28					
<input type="checkbox"/> New Equipment UT Survey		<input checked="" type="checkbox"/> Existing Equipment UT Survey		<input type="checkbox"/> In-Service <input checked="" type="checkbox"/> Out of Service	
Client Job #:			CEL Job #:		
Client:	Pipestone Energy Corp.	Location:	Surface:	01-04-044-11w5	
Date:	28/Mar/2022		UW/DH:		
Region:	Alberta	Access Considerations:		Year-Round Access	
Area:	Sunchild	Scope of Inspection	<input type="checkbox"/> Inventory	<input checked="" type="checkbox"/> External	<input checked="" type="checkbox"/> UT
Facility:	Compressor				
Static Data					
Equipment Name:	Glycol Flash Tank	MAWP Shell (PSI):	250	Pre/Post 1999:	Post
Equipment #:	V-302	MAWP Tube (PSI):	na	Diameter (in):	24
Jurisdiction #:	0618277	MAWT Shell (F):	200	CA Head (in):	0.125
Manufacturer:	Alco Gas & Oil Production Equipment LTD.	MAWT Tube (F):	na	CA Shell (in):	0.125
Year Built:	2012	Shell Material:	SA-516-70MT	Nominal (in):	0.375
SN #:	2011-8267-09	Head Material:	SA-516-70MT	Nominal (in):	0.3
CRN #:	V-7651.2			RT (Joint Eff):	1
Acceptance Criteria & Specifications:		Client Evaluation			
Method					
Procedure:	USB-001, Rev 01	Mode:	<input checked="" type="checkbox"/> Zero Degree	<input type="checkbox"/> Shear Wave	
Equipment Type:	DMS Go	Serial No:	12105442	Last Calibration:	Jan 3, 2022
Transducer:	0.250"	Serial No:	90849	Type/Frequency:	Duel / 5.0 MHZ
Cable Length (in):	72"	Couplant:	Echo Mix - water based powder mix		
Surface Condition:	<input type="checkbox"/> Clean Base Metal <input type="checkbox"/> As Ground <input type="checkbox"/> Machined <input type="checkbox"/> Sand Blast <input checked="" type="checkbox"/> Painted <input type="checkbox"/> Other:				
Cal Block(s):	SN#: 17-4164	Type:	1" 4 step Block		
Notes:					
Interval:	Set by Chief Inspector after review				

*NS=Not Stated

**NA=Not Applicable



CEL Quality Services Ltd.



Pressure Equipment Inspection

PHOTOS PAGE

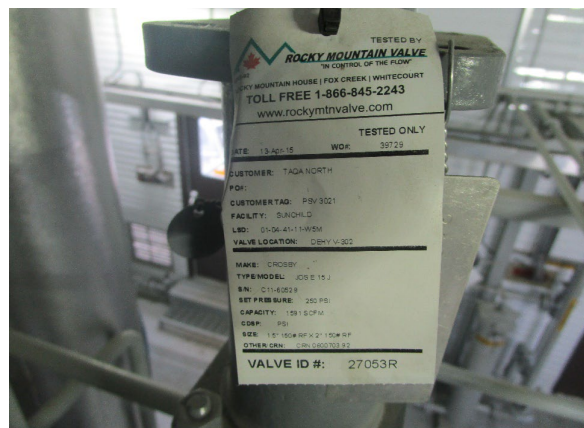
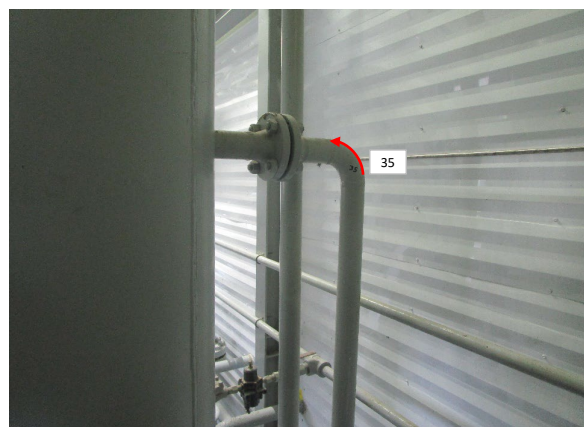
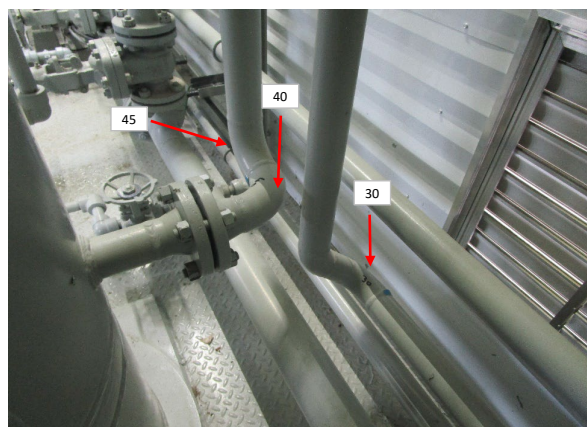
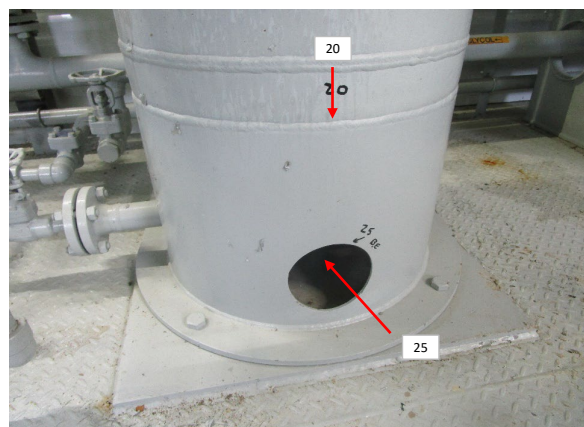
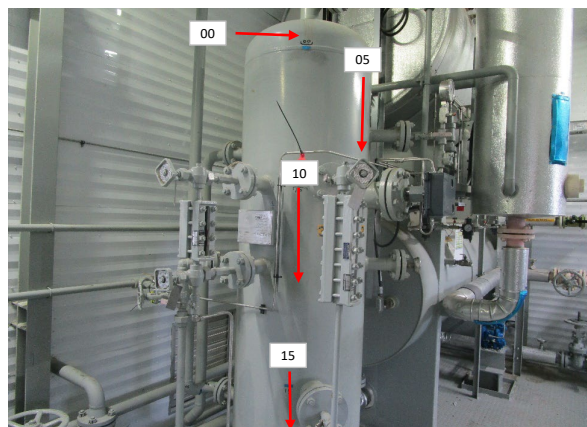
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A#: 0618277

S/N#: 2011-8267-09

or Other: V-302



Signature of Inspector:

Ben Piers

UT Corrosion Survey Readings									
Date:	28-Mar-22	Area:	Sunchild	Equipment Name:	Glycol Flash Tank	Equipment #:	V-302		
Client:	Pipestone Energy Corp.	LSD:	01-04-044-11w5	Jurisdiction #:	0618277	SN #:	2011-8267-09	Job #:	

Vessel TML Readings														
	Baseline	# of Years	Previous	# of Years	Actual		MAWP (PSI)		Shell OD (in)	Shell Nom	Head Nom	Shell Stress	Head Stress	Joint Efficiency
	2012	10	2012	10	2022		250		24	0.375	0.300	20000	20000	1.00
TML ID	Baseline		Low	High	Low	High	OD (in)	ID (in)	STCR (in/YR)	LTCR (in/YR)	T min (in)	RL (YRS)	% Loss	Component
0	0.300		0.369	0.402	0.369	0.402	24.000	23.400	0.0000	0.0000	0.1464	50+	0.00%	Head - Ellipsoidal
5	0.375		0.394	0.407	0.394	0.407	24.000	23.250	0.0000	0.0000	0.1464	50+	0.00%	Shell
10	0.375		0.391	0.403	0.391	0.403	24.000	23.250	0.0000	0.0000	0.1464	50+	0.00%	Shell
15	0.375		0.394	0.405	0.394	0.405	24.000	23.250	0.0000	0.0000	0.1464	50+	0.00%	Shell
20	0.300		0.359	0.406	0.359	0.406	24.000	23.400	0.0000	0.0000	0.1464	50+	0.00%	Head - Ellipsoidal

Vessel Attachment Piping TML Readings																		
	Baseline	# of Years	Previous	# of Years	Actual		MAWP (PSI)		Shell OD (in)			Stress		Joint Efficiency				
	2012	10	2012	10	2022		250		24			17100		1.00				
TML ID	Baseline		Low	High	Low	High	OD (in)	ID (in)	STCR (/YR)	LTCR (/YR)	T min (in)	RL (YRS)	% Loss	SCH	Nominal (in)	Attached Component	Type	Shape
25	0.343		0.340	0.355	0.340	0.355	2.375	1.689	0.0000	0.0003	0.0125	50+	0.87%	S160	0.343	Shell	Piping	90
30	0.218		0.220	0.247	0.220	0.247	2.375	1.939	0.0000	0.0000	0.0143	50+	0.00%	XS	0.218	Shell	Piping	90
35	0.218		0.209	0.224	0.209	0.224	2.375	1.939	0.0000	0.0009	0.0143	50+	4.13%	XS	0.218	Shell	Piping	90
40	0.218		0.227	0.248	0.227	0.248	2.375	1.939	0.0000	0.0000	0.0143	50+	0.00%	XS	0.218	Shell	Piping	90
45	0.218		0.212	0.239	0.212	0.239	2.375	1.939	0.0000	0.0006	0.0143	50+	2.75%	XS	0.218	Shell	Piping	90

* All readings are in inches.

* All readings are acceptable at time of the inspection.



Inspector:	Ben Piers	Certifications:
Signature:	BEN PIERS	ASNT Level 2 UT(SB); CGSB UT Level 1 #18240



Scope of Services

The agreement of CEL Quality Services Ltd. to perform services extends only to those services provided for in writing. Under no circumstance shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of CEL Quality Services Ltd. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. CEL Quality Services Ltd. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by CEL Quality Services Ltd. In no event shall, CEL Quality Services Ltd., liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care

In performing the services provided, CEL Quality Services Ltd. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by CEL Quality Services Ltd.