

# CEL Quality Services Ltd.

## VISUAL INSPECTION

Tel: (403) 845-5881 • (403) 844-3341



Pressure Equipment Inspection

### REPORT

Report#: SN C1216057A-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 #:		ns									
Equip. Name:	Pulsation Dampner		Equip. Type:		Pulsation Vessel									
Jurisdiction #:	ns		CRN:		0H5670.213									
Manufacturer:	Coorstek				Diameter OD (in):		4.5		Height/Length (in):		17			
Serial No.:	C1216057A		Year Built:		2012		<input type="checkbox"/> PSV on Vessel		<input checked="" type="checkbox"/> Piping					
Volume:	ns		PSV Data:		<input checked="" type="checkbox"/> Isolation Valve(s) Installed		<input checked="" type="checkbox"/> Car-sealed		<input type="checkbox"/> CRN:		TBS 669043			
Zones:	MAWP	Des. T	MDMT	Op.P	Op.T	Set P	Tag #	Manufacturer	Serial No.	In	Out	Capacity	Serv. Co.	Serv. Date
Shell Side:	2100	150	-20	0	ns	1830	274444R	Farris	820416-2-DA	1.5	2	199	RMV	May 1, 2015
Coil Side:	na	na	na											
Units	PSI	F	F	PSI	F	PSI						USGPM		
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:	ns	ns				ns	00	0.448	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.5	ns	Yes	
Head:	ns	ns				ns			<input type="checkbox"/>	<input type="checkbox"/>	4.5			
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): 4		<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									
	<input type="checkbox"/> Process Fluid Identified		<input type="checkbox"/> Flow direction marked		Comment: No Labels Present									
Valves:	<input checked="" type="checkbox"/> Manual Isolation Valve		<input checked="" type="checkbox"/> Free from leaks		Comment: Acceptable, no leaks noted									
	<input type="checkbox"/> Automated Control Valve		<input type="checkbox"/> Free from leaks		Comment: None									
	<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 type="checkbox"/> Temperature		Condition:		None									
Sight Glass:	<input type="checkbox"/> Fluid Level		Condition:		None									
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 type="checkbox"/> Skirt		<input type="checkbox"/> Free of debris		Condition:									
	<input type="checkbox"/> Hangers		<input type="checkbox"/> Secure		Condition:									
	<input checked="" type="checkbox"/> Other		Specify:		Secure and level by piping		Electrical Grounding:		<input type="checkbox"/> Direct		<input checked="" type="checkbox"/> Indirect		<input type="checkbox"/> None	
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, blue			
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:														
Service 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)								

Report #: SN C1216057A-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				
<b>Static Data</b>					
Equipment Name:	Pulsation Dampner	MAWP Shell (PSI):	2100	Pre/Post 1999:	Post
Equipment #:	ns	MAWP Tube (PSI):	na	Diameter (in):	4.5
Jurisdiction #:	ns	MAWT Shell (F):	150	CA Head (in):	ns
Manufacturer:	Coorstek	MAWT Tube (F):	na	CA Shell (in):	ns
Year Built:	2012	Shell Material:	ns	Nominal (in):	ns
SN #:	C1216057A	Head Material:	ns	Nominal (in):	ns
CRN #:	0H5670.213			RT (Joint Eff):	ns
Acceptance Criteria & Specifications:		Client Evaluation			
<b>Method</b>					
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



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Pressure Equipment Inspection

## PHOTOS PAGE

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A#: ns

S/N#: C1216057A

or Other: ns



Signature of Inspector:

Ben Piers

UT Corrosion Survey Readings									
Date:	28-Mar-22	Area:	Sunchild	Equipment Name:	Pulsation Dampner	Equipment #:	ns		
Client:	Pipestone Energy Corp.	LSD:	01-04-044-11w5	Jurisdiction #:	ns	SN #:	C1216057A	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	Comments
	2012	10	2012	10	2022		2100		4.5	0.448	ns	17100	ns	0.70	
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	0.448		0.448	0.475	0.448	0.475	4.500	3.604	0.0000	0.0000	0.3533	50+	0.00%	Shell	

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		2100		4.5		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
5	0.343		0.350	0.393	0.350	0.393	2.375	1.689	0.0000	0.0000	0.1120	50+	0.00%	S160	0.343	Shell	Piping	90

\* All readings are in inches.

\* Head and shell nominal are assumed

\* Vessel stress is assumed



Inspector:	Ben Piers	Certifications:
Signature:	<b>BEN PIERS</b>	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.