



Client	Midstream Equipment	Inspection Date	Jun 6, 2025		
Prov. Reg. #	AB 0511324	Inspection Type	VE / UT		
Equipment Type	BLOWCASE	Location	27 DURUM DRIVE, AB (MIDSTREAM YARD)		
Tag/Equip.		LSD			
Status	Not in Service	Downhole LSD			
Manufacturer	Universal Compression	Area			
Serial Number	047063-1	Year Built	2004		
CRN #	P3896.213	Service	Sweet		
Comp/Unit Id	UNIT 1251	Manway	None		
Nat.Board #		Coating			
Interim Insp'n		Interim Type			
Next Thorough Insp	2030	Next Insp Type	VE / UT / PSV		
Length		Height			
Volume	Capacity	Client Reference			
Owner	Midstream Equipment	RT	2	HT	
Foreman		RAE Job No.	PR0004441		
ABSA	Plant: R    Vessel: P    Process: G    Special: Z	ASME	Sec. VIII div. 1		
History Log	Inspection Report Complete - Inspection Date: 2025-June-06 Inspection Type: VE/UT				

<b>Component</b>	SHELL				
<b>MAWP</b>	1440.0 PSI @ 350 °F		<b>MDMT</b>	-20 °F @ 1440.0 PSI	
<b>Material</b>	SA-516-70N		<b>Material Thickness</b>	0.875 in	
<b>Diameter</b>			<b>Length</b>		
<b>Corrosion Allowance</b>					



<b>Valve Tag No</b>	1251 - BLOWCASE PSV	<b>Relief Type</b>	Pressure Safety Valve
<b>Manufacturer</b>	TAYLOR	<b>Set Pressure</b>	300 PSI
<b>Serial Number</b>	11768-7	<b>Capacity</b>	1117 SCFM
<b>Model</b>	82E8351311	<b>Last Service</b>	May 4, 2009
<b>CRN</b>	0G1316.2C	<b>Next Service</b>	2013
<b>Service Co.</b>	Compton	<b>Service Interval</b>	48 Months
<b>Service Co. Tag</b>	CPC-2508	<b>Inlet Size</b>	1 in
<b>ASME Stamp</b>	UV	<b>Outlet Size</b>	1 in
<b>NB Stamp</b>	YES	<b>Connection</b>	Threaded
<b>Relief Dest.</b>	To Atmosphere	<b>Valve Loc.</b>	On Vessel
<b>Comments</b>		<b>Client Reference</b>	

<b>Component</b>	HEADS		
<b>Material</b>	SA-516-70N	<b>Material Thickness</b>	0.875 in
<b>Corrosion Allowance</b>			

**Comments**

The following RAE Procedure(s) was/were used in inspecting this vessel:

INS-624B Unfired Pressure Vessels Procedure

NDE Technical Manual

The unit was located at the Midstream Equipment yard located just east of Chestermere, AB.

The unit was not in-service at the time of inspection.



### **Building Observations**

Number of Access Doors:1 Building Supported by: Skid  
Gas test port: No Gas Detection: Yes  
Fire eye: No Catalytic Heater: Yes  
Lighting: Good Floors : Checker plate steel  
Drainage/Condition: Acceptable  
Equipment placed ergonomically: Yes

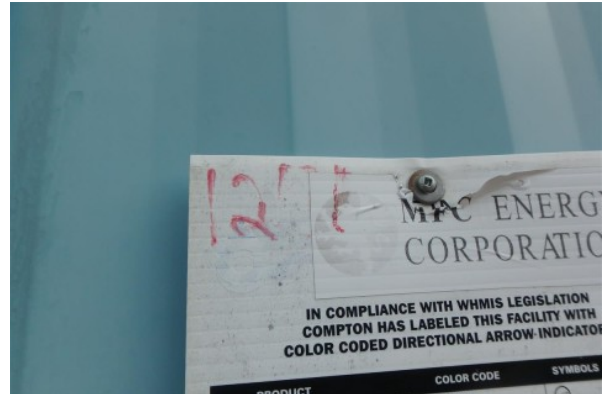
The building was identified with the 1251 written on the building doors.  
The building was generally in good condition and well supported.  
The building has two entries and windows to provide lighting. Both the doors and windows were functioning well and were in good condition.  
The building floor was a steel grating and was in good condition.  
All items are placed economically, and operations can be performed safely.  
The building structure was level and situated on a transportation skid.  
The cladding was in good condition.  
Overall, the building was in acceptable condition.

Figure: 1



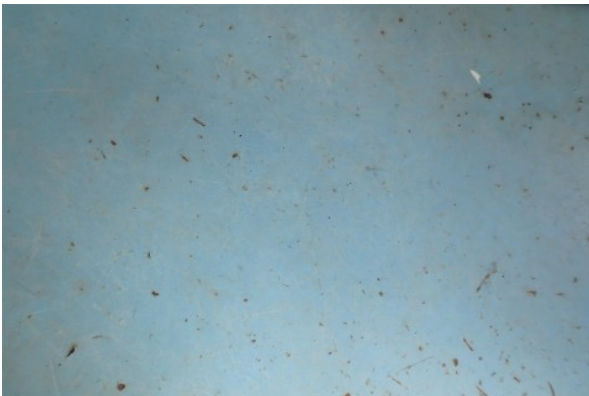
BUILDING

Figure: 2



UNIT NUMBER

Figure: 3



FLOOR



### **Piping Observations**

General condition: Acceptable

Mechanical connections acceptable for service?: Acceptable

Clad: No Painted: Yes Insulated: No

Are there any dead legs: No

Support type: U-Bolt

Supported adequately: Yes

The attached piping was sufficiently support and was in good condition.

The piping was painted and there was no damage, distortion or stress evident on the piping.

There was scattered external corrosion on the piping surfaces.

The piping had welded joints and flanged connections that were fully bolted and appeared to be in good condition, with no signs of leakage.

All piping less than 2" were threaded and were fully threaded and appeared to be in good condition, with no signs of leakage.

Figure: 4



INLET PIPING

Figure: 5



OUTLET PIPING



### PSV Observations

Drainage : Acceptable Supports : Acceptable  
Bolting : Acceptable Seal wire : Acceptable  
Gasket : Acceptable Service tag : Acceptable  
CRN : Acceptable Set pressure : Acceptable  
Installation vertical : Yes Required Capacity : Not verified  
PSV block valves : No  
PSV service report available : No

The PSV was located inside the building on the vessel.

The PSV was mounted in the vertical position and securely attached to the piping.

There were no valves located on the PSV piping and the vent piping appeared to be adequately sized and was positioned safely.

The outlet piping provided positive drainage for the PSV.

The PSV was in good condition.

The PSV set pressure is acceptable for the vessel.

The PSV shall be serviced prior placing the unit back into service.

Figure: 6



PSV

Figure: 7



NAMEPLATE

Figure: 8



REPAIR NAMEPLATE

Figure: 9



SERVICE TAG





**External Observations**

Installation : In Building  
Grounded : Yes  
Drains : Automatic  
Attachments : Yes  
CUI checked : Yes  
Vessel Orientation : Horizontal  
Manway : No  
Certificate of inspection permit : Yes  
Nameplate attached and legible : Yes

Support Structure : Saddles  
Securement Type : Bolted  
Securement Condition : Acceptable  
Ladders/Platforms : N/A  
External Covering : Coated

The vessel was identified by the Alberta Registration Number stamped on the nameplate.  
The nameplate was legible and securely mounted to the vessel.  
The vessel was fully located inside the building was ergonomically placed.  
The vessel was adequately supported on saddles and was bolted to the skid floor.  
The heads, shell, nozzles and bolting appeared to be in good condition.  
There was no stress evident on piping or nozzle connections and there was no damage or distortion evident on the vessel surface.  
There was scattered external corrosion on the vessel surfaces.  
The vessel was painted blue and is in acceptable condition.

Figure: 10



VESSEL

Figure: 11



NAMEPLATE



Figure: 12



SUPPORT

#### **Internal Observations**

There was no internal inspection performed at the time of inspection.

#### **UT1 Observations**

See attached UT Report. UT results were reviewed and found to be acceptable.

#### **Recommendations**

1. The vessel is fit-for-service.
2. The PSV shall be serviced prior placing the unit back into service.
3. A permanent Midstream unit label should be affixed to the building door.
4. There should be an installation inspection of the unit after being installed on site to ensure no damage occurred during shipping and to verify proper installation.


Irwin Garcia, P.Eng.  
Alberta IPV #A-92199

ABSA ISI-PVPP# A-99351  
API 510# 68250  
CWB Level II# 12352  
SNT UT1 MT2

**Inspector:** Bryce Motley

**Inspector :** Irwin Garcia

**Reviewed By:** Bryce Motley

	<b>RAE Engineering and Inspection Ltd.</b> <a href="http://www.raeengineering.ca">www.raeengineering.ca</a> Phone: (780) 469-2401 Fax: (780)-469-2401		Inspection Date:		June 06, 2025		<h1>UT Report</h1>								
			Report Number:		IG000073										
			Page:		1 of 4										
Client:		Midstream Equipment		Job Number:		PR0004439									
Facility:		Midstream Yard		Location/LSD:		Midstream Yard									
Equipment Number:		0511324		Client Representative:		Joe Davis									
Equipment Description:		Blowcase		Client Contact:		joe.davis@midstreamequipment.com									
Equipment Type:		Vessel+Pipe		Measurment Unit:		Inch									
<b>JOB DESCRIPTION</b>															
Procedure:		NDE Tech Manual Rev. 2025 (NDE - 701B)													
Acceptance Code:		ASME Sec. VIII Div. 1 / ASME B31.3		Surface Condition:		Painted									
Material:		Carbon Steel		Surface Temp:		0 - 120 °C									
<b>EQUIPMENT, TECHNIQUE &amp; CALIBRATION</b>															
Instrument Mfr:		GE		Model:		DMS2		S/N:		01X121		Cal. Due:		2026-05-02	
Probe Model	Freq MHz	Angle	Dia. (In)	Probe Type	Manufacturer	Serial #	Cable Length	Vel. (m/sec)	Ref dB	Scan dB	Range (in)				
FH2E	7.5	0	0.250	Single	Stresstel	24E00NGM	6'	2369	60	As Needed	1				
Cal Block S/N			1 or 2 Point Cal		Calibration Range		Couplant		Block Material						
11-1200			2		0.100-1.500"		UTX		Carbon Steel						

Scope:

Conduct 0° straight beam ultrasonic testing on the blowcase looking for any signs of wall thinning due to corrosion, erosion, laminations or inclusions.

Result:

The measurements obtained from the inspection locations showed the thicknesses of all the components inspected to be at or around nominal. There were no signs of wall thinning, internal corrosion, erosion, laminations or inclusions at the time of inspection. All piping measurements were within the 12.5% mill tolerance, as per ASTM specifications.

Please see the following pages for the pictures of nameplate, the overall view, the isometric drawings, and the thickness measurements.

Conclusion:

No concerns noted at the time of inspection.





RAE Engineering and Inspection Ltd. <a href="http://www.raeengineering.ca">www.raeengineering.ca</a> Phone: (780) 469-2401 Fax: (780)-469-2401	Inspection Date:	June 06, 2025	UT Report
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Photo Graphics



Overall View



Nameplate



RAE Engineering and Inspection Ltd.  
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Phone: (780) 469-2401 Fax: (780)-469-2401

Inspection Date:

June 06, 2025

Report Number:

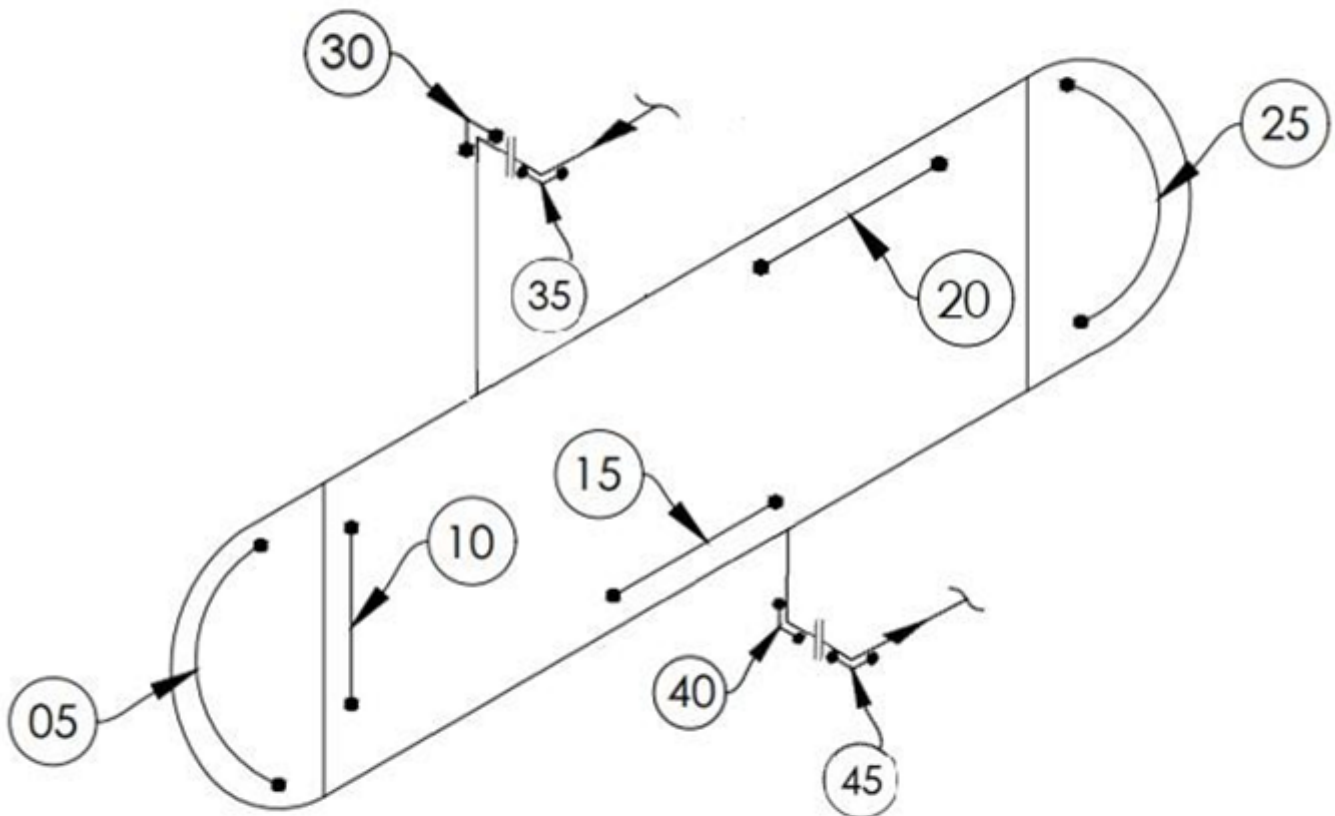
IG000073

Page:


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# UT Report

## ISO Drawing



ISO

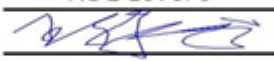
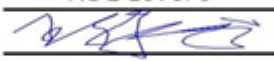

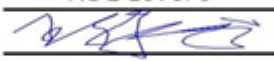
		RAE Engineering and Inspection Ltd.  www.raeengineering.ca  Phone: (780) 469-2401   Fax: (780)-469-2401						Inspection Date:		June 06, 2025			UT Report	
								Report Number:		IG000073				
								Page:		4 of 4				
UT Data														
#	01	02	03	04	05	06	07	08	09	10	11	12	Min & Avg	
5	Head						Nom	0.750	Mil	0.010	CA	N/S	Min:	0.971
	0.971	0.993	1.003	1.012	1.007	0.998	1.005	1.004	0.979	0.976			Avg:	0.995
10	Mid Shell						Nom	0.875	Mil	0.010	CA	N/S	Min:	0.918
	0.920	0.928	0.948	0.934	0.924	0.926	0.920	0.932	0.921	0.918			Avg:	0.927
15	Bottom Shell						Nom	0.875	Mil	0.010	CA	N/S	Min:	0.914
	0.914	0.916	0.915	0.915	0.918	0.914	0.923	0.917	0.928	0.928			Avg:	0.919
20	Top Shell						Nom	0.875	Mil	0.010	CA	N/S	Min:	0.915
	0.920	0.919	0.925	0.922	0.924	0.920	0.920	0.915	0.916	0.919			Avg:	0.920
25	Head						Nom	0.750	Mil	0.010	CA	N/S	Min:	0.977
	1.009	1.008	1.001	0.989	0.994	0.990	0.989	0.991	0.977	0.987			Avg:	0.994
30	2	XXH	90° Elbow				Nom	0.436	Mil	0.054	CA	N/S	Min:	0.445
	0.479	0.445	0.453	0.460	0.472	0.476							Avg:	0.464
35	2	160	90° Elbow				Nom	0.344	Mil	0.043	CA	N/S	Min:	0.353
	0.353	0.359	0.367	0.374	0.373	0.365							Avg:	0.365
40	2	XXH	90° Elbow				Nom	0.436	Mil	0.054	CA	N/S	Min:	0.438
	0.464	0.449	0.438	0.454	0.443	0.440							Avg:	0.448
45	2	160	90° Elbow				Nom	0.344	Mil	0.043	CA	N/S	Min:	0.337
	0.340	0.349	0.346	0.337	0.342								Avg:	0.343



Irwin Garcia, P.Eng.  
Alberta IPV #A-92199

Technician 1: Irwin Garcia

SNT RAE-710B-037 UT Level 1 (Expires Sep 30, 2029)  
SNT RAE-710B-037 MT Level 2 (Expires Sep 30, 2029)

<table><tr><th>Method</th><th>Level</th><th>Expiry Date</th></tr><tr><td>UT</td><td>1</td><td>30-Sep-29</td></tr><tr><td>MT</td><td>2</td><td>30-Sep-29</td></tr><tr><td colspan="3">Corrective Lenses Required: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</td></tr><tr><td>By:</td><td colspan="2">Zong Jun Wang</td></tr><tr><td>Title:</td><td colspan="2">NDE Level 3</td></tr><tr><td>Signature:</td><td colspan="2"></td></tr><tr><td>Date:</td><td colspan="2">30-Sep-24</td></tr></table>			Method	Level	Expiry Date	UT	1	30-Sep-29	MT	2	30-Sep-29	Corrective Lenses Required: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			By:	Zong Jun Wang		Title:	NDE Level 3		Signature:			Date:	30-Sep-24		<div><div>RAE Engineering and Inspection Ltd.</div></div> <div>Certification Record</div> <div>This is to certify that:</div> <div>Irwin Garcia</div> <div>The above named employee has satisfactorily met the qualification requirements of the RAE Engineering and Inspection Ltd. written practice that meets the requirements of ASNT recommended practice SNT-TC-1A 2020 edition</div> <div>Certification No.: RAE-710B-037</div>		
Method	Level	Expiry Date																											
UT	1	30-Sep-29																											
MT	2	30-Sep-29																											
Corrective Lenses Required: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																													
By:	Zong Jun Wang																												
Title:	NDE Level 3																												
Signature:																													
Date:	30-Sep-24																												





# MetTech

**Material Testing Equipment and Supplies**

A division of 1067113 Alberta Ltd.

# 1, 3610 - 29 St. N.E. Calgary, Alberta T1Y 5Z7

## Measurement Readings for Calibration of Thickness Gauges

Company: RAE Engineering & Inspection Ltd. - Calgary

Instrument: GE DMS2 UTG

Serial Number: 01X121

Date: 5/2/2025

Range Check against stated reference listed:

Nominal measure	Measured reading	
	Block # 1	Block # 2
1.000"	1.002 "	1.000 "
0.750"	0.752 "	0.751 "
0.500"	0.500 "	0.500 "
0.250"	0.250 "	0.250 "

Allowable tolerance +/- 0.004"

These readings were produced against stated reference block in house and are within the allowable tolerances.

### Reference Standards

4 Step 4340 Imperial Steel

Serial # 07-5839

Heat/Lot # G10975K06

ASTM specification E-797

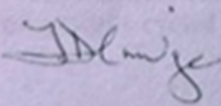
4 Step Imperial Steel

Serial # 11-3909

Heat/Lot # 227L511

ASTM specification E-797

These reference standards have been manufactured in accordance with applicable specifications, and were inspected with instruments calibrated in accordance with ANSI/NCSL Z540-1-94 and traceable to NIST.

Signed by: 

Temperature: 21.2 °C

On this date: 5/2/2025

Rel. Hum. : 28%

Calibration report MET-STEP01    Revision 3    Apr 11/22

Phone: 270-7778

Calgary

Fax: 283-3552

Edmonton

Toll free: 1-888-283-3552





# MetTech

**Material Testing Equipment and Supplies**

A division of 1067113 Alberta Ltd.

# 1, 3610 - 29 St. N.E. Calgary, Alberta T1Y 5Z7

## Certificate of Calibration of Thickness Gauges

Company: Rae Engineering - Calgary

Instrument: GE DMS2 UTG

Serial Number 01X121 :

Date: 5/2/2025

This is to certify that the above instrument meets or exceeds manufacturer's specifications for THICKNESS RESOLUTION, and has been calibrated to reference standards manufactured and inspected in accordance with ISO 902 with instruments calibrated to ANSI/NCSL Z540 and traceable to National Institute of Standards and Technology (NIST).

Reference Standard: 4 Step Imperial Steel

Serial # 07 - 5839

Block #1

Serial # 11 - 3909

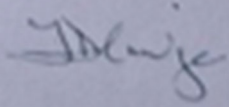
Block #2

These blocks have been manufactured in accordance with applicable specifications, and was inspected with instruments calibrated in accordance with ANSI/NCSL Z540 and traceable to NIST.

NIST certification reference # 11-83834 A & B

# 10-78221 A & B

Certificate of calibration is current for a period of 12 from date listed. Reference Standard Blocks are periodically cycled out of stock without notice.

Signed by: 

On this date: 5/2/2025