



Client	Midstream Equipment	Inspection Date	Jun 6, 2025		
Prov. Reg. #	AB 0493451	Inspection Type	VE / UT		
Equipment Type	INLET SEPARATOR	Location	27 DURUM DRIVE, AB (MIDSTREAM YARD)		
Tag/Equip.		LSD			
Status	Not in Service	Downhole LSD			
Manufacturer	Universal Compression	Area			
Serial Number	027151-3	Year Built	2003		
CRN #	P2780.213	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				

Component	SHELL			
MAWP	740.0 PSI @ 350 °F		MDMT	-20 °F @ 740.0 PSI
Material	SA-516-70N	Material Thickness	0.625 in	
Diameter		Length		
Corrosion Allowance				



Valve Tag No	1251 - SEP PSV	Relief Type	Pressure Safety Valve
Manufacturer	TAYLOR	Set Pressure	300 PSI
Serial Number	11415-8	Capacity	1117 SCFM
Model	82E7351311	Last Service	May 4, 2009
CRN	0G1316.2C	Next Service	2013
Service Co.	Compton	Service Interval	48 Months
Service Co. Tag	CPC-2507	Inlet Size	1 in
ASME Stamp	UV	Outlet Size	1 in
NB Stamp	YES	Connection	Threaded
Relief Dest.	To Atmosphere	Valve Loc.	On Vessel
Comments		Client Reference	

Component	HEADS		
Material	SA-516-70N	Material Thickness	0.625 in
Corrosion Allowance			

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.

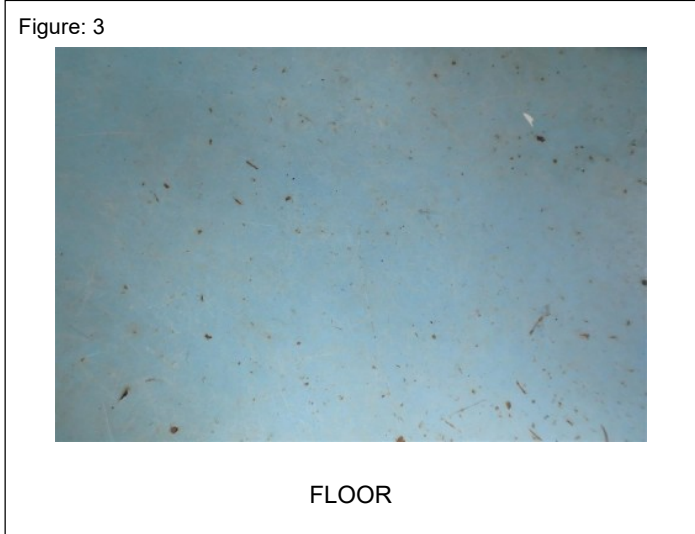
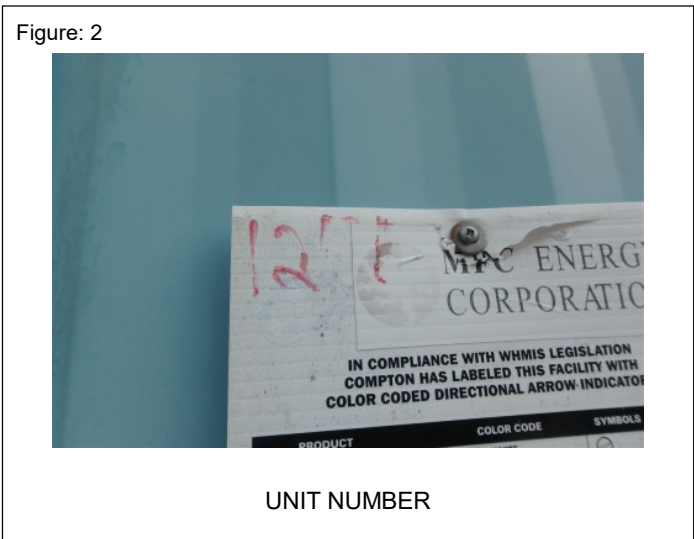
The unit was not in-service at the time of inspection.



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.

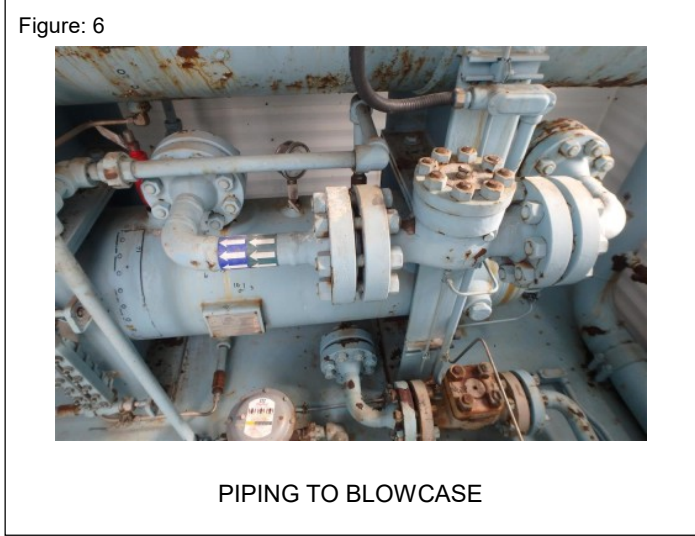
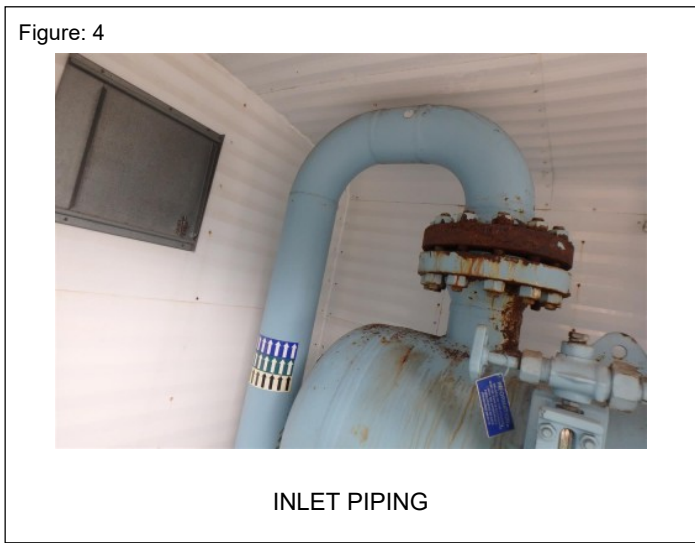




Piping Observations

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.

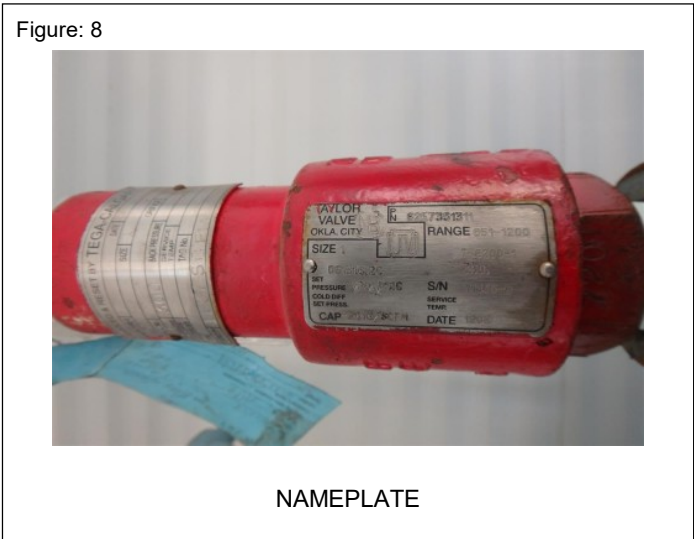




PSV Observations

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.





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: 11



VESSEL

Figure: 12



NAMEPLATE

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

	RAE Engineering and Inspection Ltd. www.raeengineering.ca Phone: (780) 469-2401 Fax: (780)-469-2401		Inspection Date: June 06, 2025	<h1 style="margin: 0;">UT Report</h1>							
			Report Number: IG000072								
			Page: 1 of 5								
Client:	Midstream Equipment	Job Number:	PR0004441								
Facility:	Midstream Yard	Location/LSD:	Midstream Yard								
Equipment Number:	0493451	Client Representative:	Joe Davis								
Equipment Description:	Inlet Separator	Client Contact:	joe.davis@midstreamequipment.com								
Equipment Type:	Vessel+Pipe	Measurement Unit:	Inch								
JOB DESCRIPTION											
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								
EQUIPMENT, TECHNIQUE & CALIBRATION											
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 inlet separator 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.

- Black** - Within ASME Tolerance
- Blue** - Nominal minus ASME Tolerance
- Red** - Nominal minus ASME Tolerance minus CA or Nominal minus ASME Tolerance (if CA = N/S)
- Orange** - Nominal Not Specified (N/S)



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UT Report

Photo Graphics



Overall View



Nameplate



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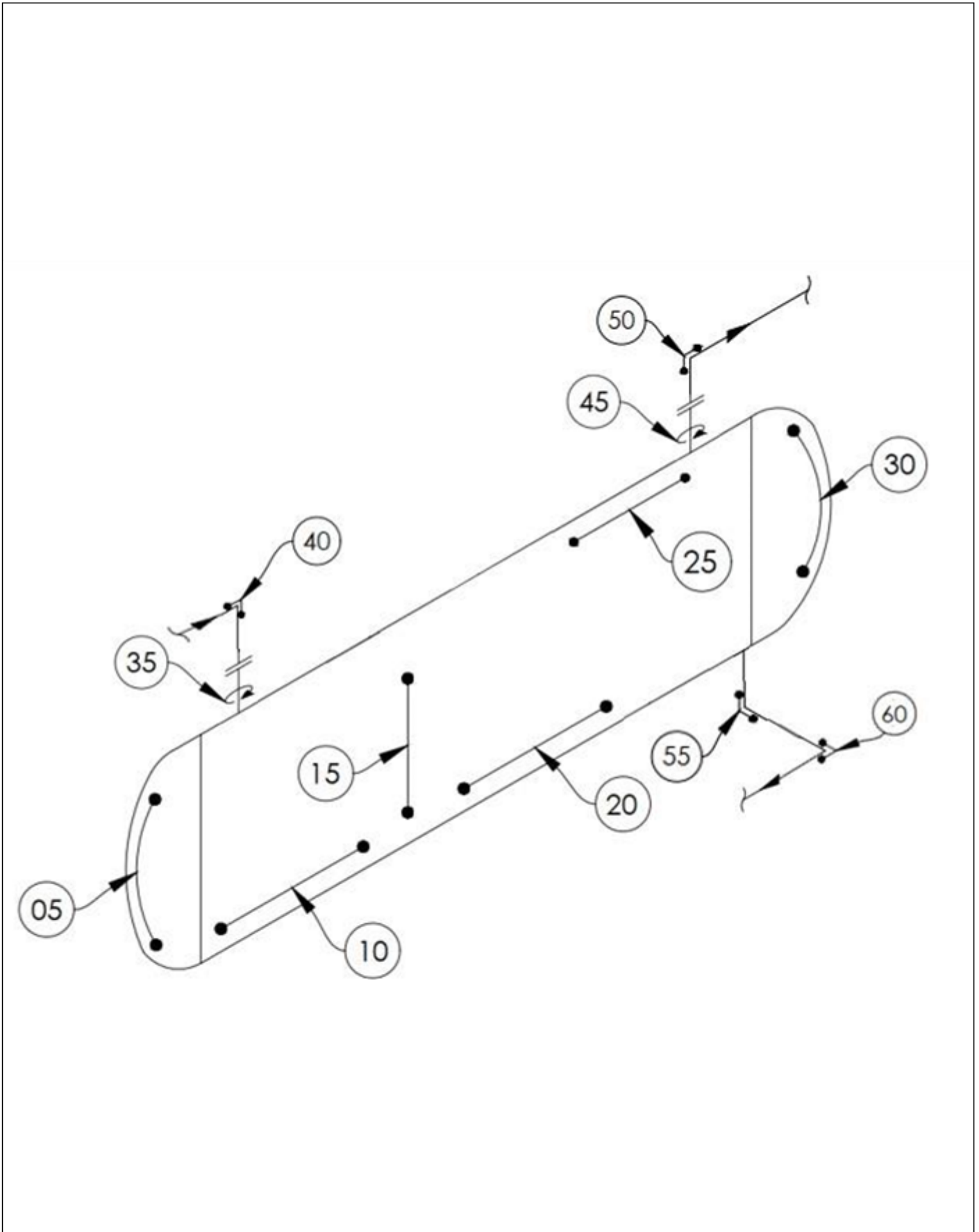
IG000072

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**UT
Report**

ISO Drawing



ISO



UT Data

#	01	02	03	04	05	06	07	08	09	10	11	12	Min & Avg	
5	Head						Nom	0.625	Mil	0.010	CA	N/S	Min:	0.749
	0.798	0.785	0.792	0.769	0.765	0.767	0.765	0.773	0.757	0.749			Avg:	0.772
10	Bottom Shell						Nom	0.625	Mil	0.010	CA	N/S	Min:	0.625
	0.625	0.625	0.626	0.629	0.628	0.636	0.631	0.634	0.632	0.632			Avg:	0.630
15	Mid Shell						Nom	0.625	Mil	0.010	CA	N/S	Min:	0.641
	0.649	0.647	0.643	0.646	0.647	0.641	0.650	0.651	0.643	0.646			Avg:	0.646
20	Bottom Shell						Nom	0.625	Mil	0.010	CA	N/S	Min:	0.616
	0.653	0.646	0.640	0.645	0.643	0.650	0.649	0.655	0.661	0.616			Avg:	0.646
25	Top Shell						Nom	0.625	Mil	0.010	CA	N/S	Min:	0.642
	0.644	0.645	0.647	0.645	0.650	0.648	0.649	0.642	0.646	0.642			Avg:	0.646
30	Head						Nom	0.625	Mil	0.010	CA	N/S	Min:	0.754
	0.771	0.775	0.775	0.775	0.774	0.770	0.761	0.766	0.772	0.754			Avg:	0.769
35	6 XXH Nozzle						Nom	0.864	Mil	0.108	CA	N/S	Min:	0.868
	0.944	0.868	0.927	0.914									Avg:	0.913
40	6 XH 90° Elbow						Nom	0.432	Mil	0.054	CA	N/S	Min:	0.506
	0.520	0.515	0.508	0.506	0.509	0.514							Avg:	0.512
45	6 XXH Nozzle						Nom	0.864	Mil	0.108	CA	N/S	Min:	0.899
	0.950	0.899	0.922	0.953									Avg:	0.931
50	6 XH 90° Elbow						Nom	0.432	Mil	0.054	CA	N/S	Min:	0.466
	0.481	0.476	0.474	0.467	0.466	0.469							Avg:	0.472
55	2 XXH 90° Elbow						Nom	0.436	Mil	0.054	CA	N/S	Min:	0.452
	0.500	0.452	0.460	0.458	0.469	0.495							Avg:	0.472
60	2 160 90° Elbow						Nom	0.344	Mil	0.043	CA	N/S	Min:	0.311
	0.341	0.337	0.331	0.312	0.311	0.315							Avg:	0.325

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)



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Inspection Date:

June 06, 2025

Report Number:


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**UT
Report**

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	



RAE Engineering and Inspection Ltd.

Certification Record

This is to certify that:

Irwin Garcia

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

Certification No.: RAE-710B-037



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"

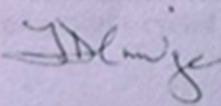
These readings were produced against stated reference block in house and are within the allowable tolerances.

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

Calgary Edmonton
Phone: 270-7778 Fax: 283-3552 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

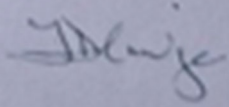
Serial # 11 - 3909 Block #2

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