



### Inspection Service

This Service Presented To

HILONG

**Inspection Service:**

**UT Wall Thickness Measurements (UTM)**

**Customer:**

**Hilong Oil Services & Engineering. Co. Ltd. Iraq Branch**

**Work Location:**

**HL – 22 / ZB-622**

**Inspection Date:**

**07 – December – 2024**

**Next Inspection Date:**

**06 – December – 2025**

**Inspector Name:**

**Aram Dlawar**





**Inspection Summary Report**

Report No:	ATS-12-24-4628-UTM-043	Job No:	ATS-12-24-4628
Customer:	<b>Hilong Oil Services &amp; Engineering</b>	Examination date:	07–December–2024
Location:	HL-22 / ZB-622	Next Due date:	06–December–2025

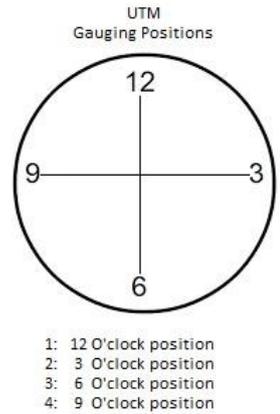
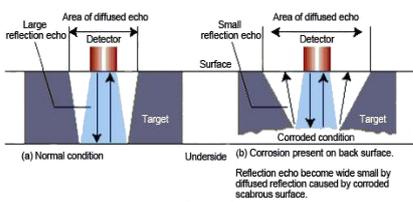


Equipment Details:		
Name of the Examined Equipment:	Mud pump pressure line components	
Summary of Procedures:		
Description of Step	Status	Remark
Visually Check For Any Damage Wear Distortion .....etc.	✓	Pass
Check Markings & Serial Number:	✓	Pass
Check The Ultrasonic Thickness Measuring Equipment before work:	✓	Pass
The Device Was Tested by The Test Block:	✓	Pass
Comparison Of Actual Reading with Minimum Thickness:	✓	Pass
UTM Interpretation against ASTM E797 Acceptance Criteria:	✓	Pass
ASNT Level II Inspector Name:	Signature & Stamp	
<b>Aram Dlawar</b>		



<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-1	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025
<b>Item Description:</b> mud pump pressure line components		
<b>Serial No#:</b> BY13-317 //// 32		
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°
<b>Measuring Equipment</b>		
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A1	Nil	Need to be Provided from OEM by the client	24.97	25.05	24.88	24.89	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

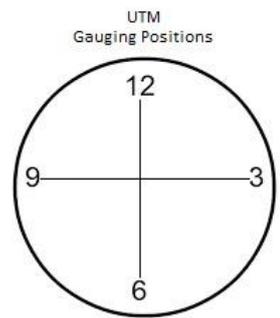
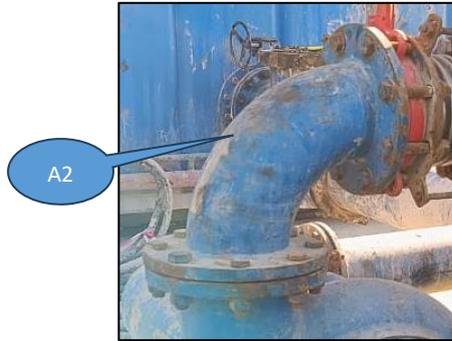
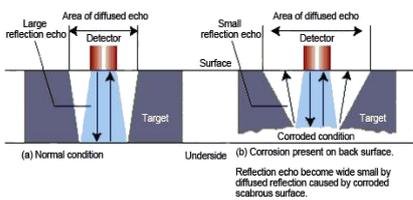
<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b>
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		





<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-2	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025
<b>Item Description:</b> mud pump pressure line components		
<b>Serial No#:</b> BY13-317 //// 3		
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°
<b>Measuring Equipment</b>		
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A2	Nil	Need to be Provided from OEM by the client	5.67	5.70	5.68	5.65	Need Review

**Result:**

1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

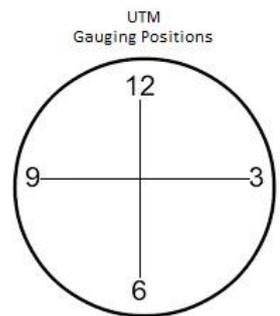
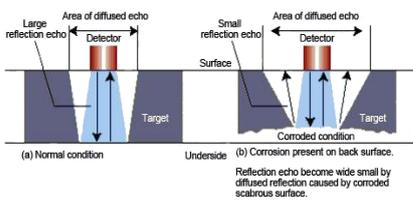
<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b>
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		





<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-3	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025
<b>Item Description:</b> mud pump pressure line components		
<b>Serial No#:</b> BY13-317 //// 31		
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°
<b>Measuring Equipment</b>		
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A3	Nil	Need to be Provided from OEM by the client	3.92	3.90	3.98	4.02	Need Review
A4		Need to be Provided from OEM by the client	4.31	4.35	4.28	4.33	Need Review

**Result:**

- 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		

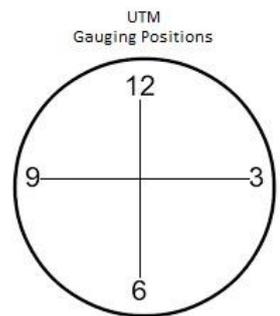
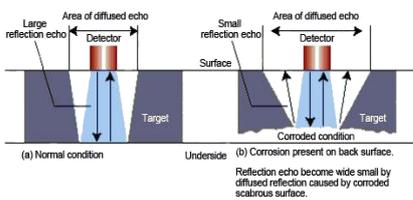




ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE

<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-4	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025
<b>Item Description:</b> mud pump pressure line components		
<b>Serial No#:</b> BY13-317 //// 38		
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°
<b>Measuring Equipment</b>		
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



UTM Results

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A5	Nil	Need to be Provided from OEM by the client	13.55	13.50	13.60	13.58	Need Review
A6		Need to be Provided from OEM by the client	18.95	18.90	18.88	18.78	Need Review

Result:

- 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		





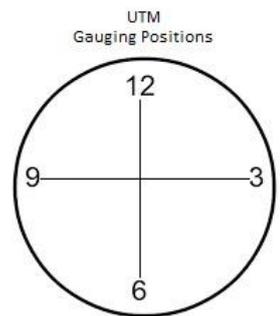
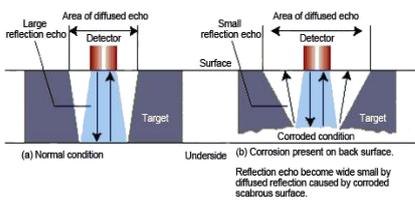
**ABERDEEN TECHNICAL SERVICES AND GENERAL TRANSPORTATION**

**ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE**



<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-5	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025
<b>Item Description:</b> mud pump pressure line components		
<b>Serial No#:</b> BY13-317 //// 39		
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°
<b>Measuring Equipment</b>		
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A7	Nil	Need to be Provided from OEM by the client	28.92	28.90	28.80	28.70	Need Review
A8		Need to be Provided from OEM by the client	34.62	34.60	34.58	34.65	Need Review
A9		Need to be Provided from OEM by the client	29.75	29.70	29.65	29.77	Need Review
A10		Need to be Provided from OEM by the client	24.63	24.60	24.58	24.60	Need Review

**Result:**

- 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		



ATS-NDT-F-005 ISSUE 3 JUN 2023

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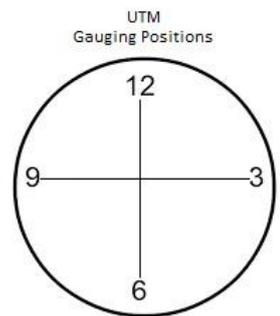
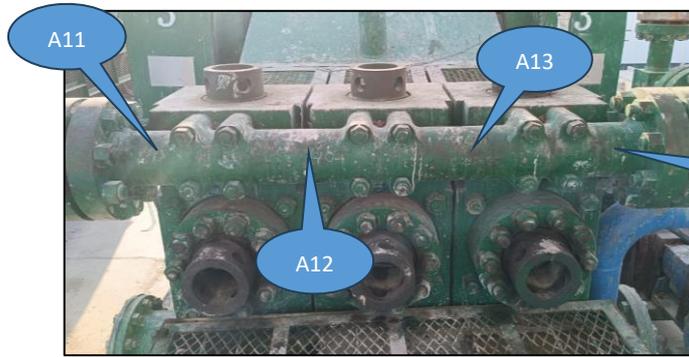
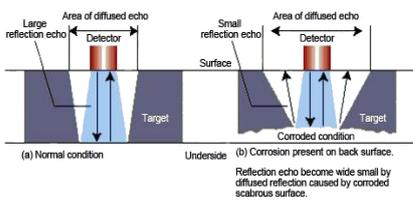
Tel: +964 783334444 +964 782222633



ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE

<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024	
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-6	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025	
<b>Item Description:</b> mud pump pressure line components			
<b>Serial No#:</b> BY13-317 //// 40			
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel	
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°	
<b>Measuring Equipment</b>			
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024	<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

UTM Results

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A11	Nil	Need to be Provided from OEM by the client	37.12	37.20	37.30	37.33	Need Review
A12		Need to be Provided from OEM by the client	38.10	38.02	37.88	37.95	Need Review
A13		Need to be Provided from OEM by the client	37.55	37.65	37.48	37.66	Need Review
A14		Need to be Provided from OEM by the client	37.78	37.55	37.44	37.38	Need Review

Result:

- 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b>
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		





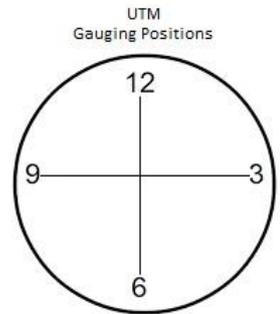
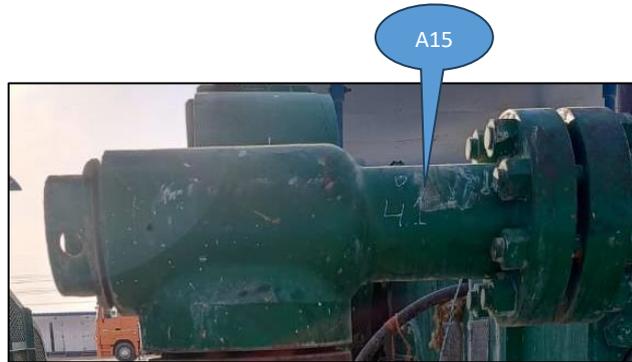
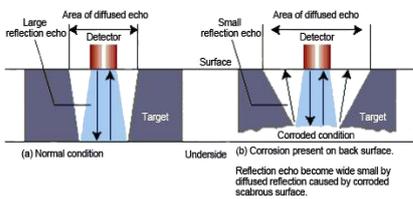
**ABERDEEN TECHNICAL SERVICES AND GENERAL TRANSPORTATION**

**ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE**



<b>Client:</b> Hilong Oil Services & Engineering		<b>Location:</b> Hilong - 22 / ZB – 622		<b>Inspection Date:</b> 07-Dec-2024	
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-7		<b>Work order &amp; Job No#:</b> ATS-12-24-4628		<b>Inspection Due Date:</b> 06-Dec-2025	
<b>Item Description:</b> mud pump pressure line components					
<b>Serial No#:</b> BY13-317 //// 41					
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications			<b>Material:</b> Carbon Steel		
<b>Surface Condition:</b> Brushed and Cleaned			<b>Surface Temperature:</b> 22 C°		
<b>Measuring Equipment</b>					
<b>UTM Instrument - Maker:</b> Sona Test		<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech		<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A15	Nil	Need to be Provided from OEM by the client	37.50	37.55	37.58	37.48	Need Review

**Result:**

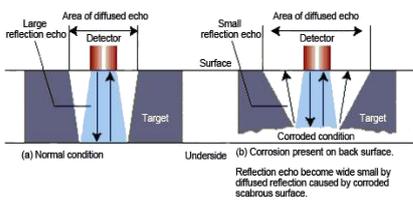
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<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
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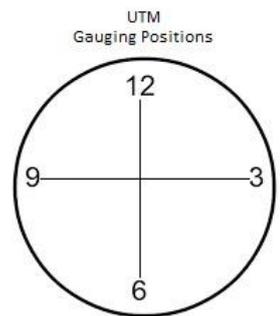


<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-8	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025
<b>Item Description:</b> mud pump pressure line components		
<b>Serial No#:</b> BY13-317 //// 42		
<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications		<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned		<b>Surface Temperature:</b> 22 C°
<b>Measuring Equipment</b>		
<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594
		<b>Calibration Date:</b> 28-June-2024
		<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



A16



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

UTM Results

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A16	Nil	Need to be Provided from OEM by the client	18.91	18.88	18.90	18.95	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b>
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		





**ABERDEEN TECHNICAL SERVICES AND GENERAL TRANSPORTATION**

**ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE**



**Client:** Hilong Oil Services & Engineering      **Location:** Hilong - 22 / ZB – 622      **Inspection Date:** 07-Dec-2024

**Certificate No:** ATS-12-24-4628-UTM-043-9      **Work order & Job No#:** ATS-12-24-4628      **Inspection Due Date:** 06-Dec-2025

**Item Description:** mud pump pressure line components  
**Serial No#:** BY13-317 //// 43 (ZJ70D118-01)

**Relative Standards/Specifications:** ASTM E 797 & Client Specifications      **Material:** Carbon Steel

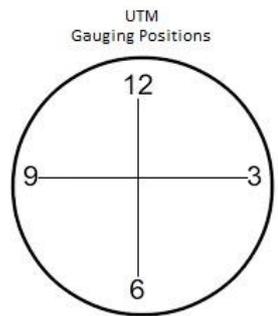
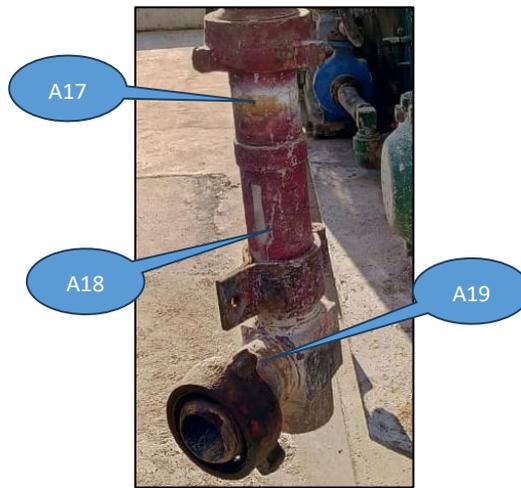
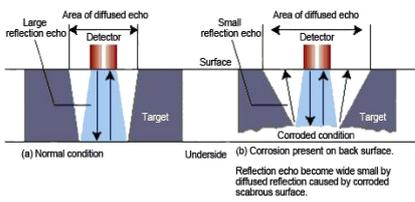
**Surface Condition:** Brushed and Cleaned      **Surface Temperature:** 22 C°

**Measuring Equipment**

**UTM Instrument - Maker:** Sona Test      **Model:** Sonagage IV      **S. No.:** 05058473      **Calibration Date:** 28-June-2024      **Calibration Due Date:** 27-Dec-2024

**Pit Depth Gauge - Maker:** New Tech      **Model:** NAA-4-M11118      **S. No.:** 97594      **Calibration Date:** 28-June-2024      **Calibration Due Date:** 27-Dec-2024

**Sketch or picture (direct on this page  or attached )**



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A17	Nil	Need to be Provided from OEM by the client	18.78	18.70	18.75	18.80	Need Review
A18		Need to be Provided from OEM by the client	18.77	18.68	18.85	18.77	Need Review
A19		Need to be Provided from OEM by the client	19.57	19.50	19.48	19.60	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		



**ABERDEEN TECHNICAL SERVICES AND GENERAL TRANSPORTATION**

**ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE**



<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-10	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025

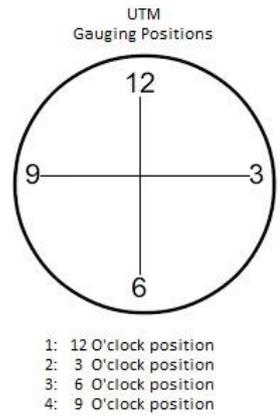
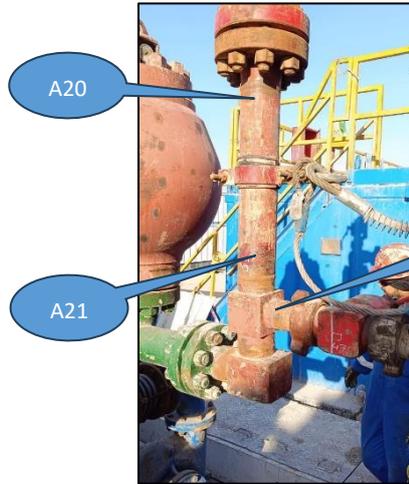
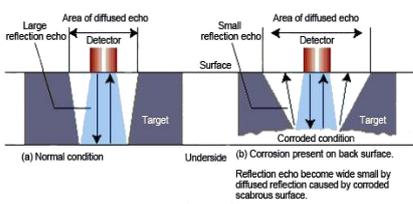
**Item Description:** mud pump pressure line components  
**Serial No#:** BY13-317 //// 45

<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications	<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned	<b>Surface Temperature:</b> 22 C°

**Measuring Equipment**

<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024

**Sketch or picture (direct on this page  or attached )**



**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A20	Nil	Need to be Provided from OEM by the client	18.95	18.90	18.88	18.99	Need Review
A21		Need to be Provided from OEM by the client	19.20	19.15	19.22	19.10	Need Review
A22		Need to be Provided from OEM by the client	16.80	16.75	16.77	16.88	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		



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**ABERDEEN TECHNICAL SERVICES AND GENERAL TRANSPORTATION**

**ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE**



<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-11	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025

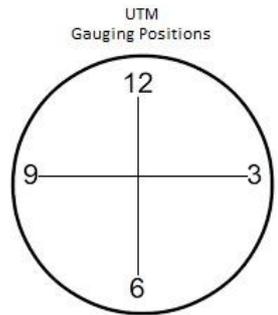
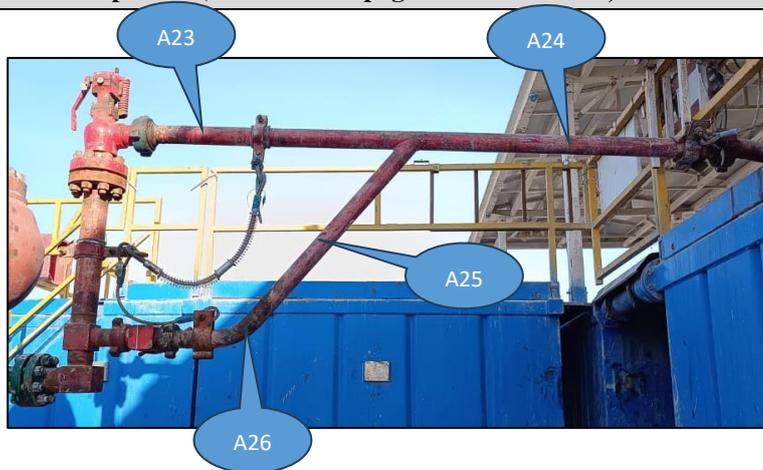
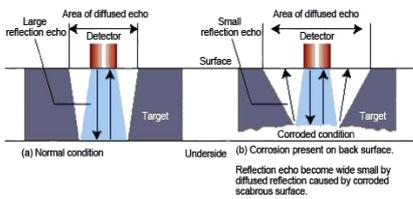
**Item Description:** mud pump pressure line components  
**Serial No#:** BY13-317 //// 46

<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications	<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned	<b>Surface Temperature:</b> 22 C°

**Measuring Equipment**

<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024

**Sketch or picture (direct on this page  or attached )**



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A23	Nil	Need to be Provided from OEM by the client	16.55	16.50	16.45	16.44	Need Review
A24		Need to be Provided from OEM by the client	17.01	17.10	16.98	16.88	Need Review
A25		Need to be Provided from OEM by the client	16.41	16.39	16.33	16.40	Need Review
A26		Need to be Provided from OEM by the client	16.30	16.25	16.28	16.30	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		



# ABERDEEN TECHNICAL SERVICES AND GENERAL TRANSPORTATION

## ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE



<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-12	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025

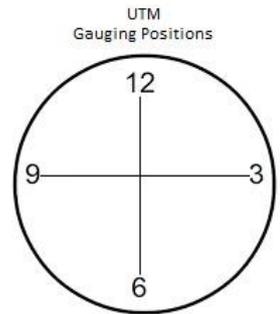
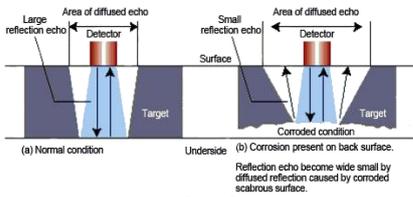
**Item Description:** mud pump pressure line components  
**Serial No#:** BY13-317 //// 47 (202307079)

<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications	<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned	<b>Surface Temperature:</b> 22 C°

### Measuring Equipment

<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024

Sketch or picture (direct on this page  or attached )



- 1: 12 O'clock position
- 2: 3 O'clock position
- 3: 6 O'clock position
- 4: 9 O'clock position

### UTM Results

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A27	Nil	Need to be Provided from OEM by the client	33.35	33.65	33.55	33.52	Need Review
A28		Need to be Provided from OEM by the client	34.22	34.25	34.45	34.35	Need Review

### Result:

- 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		



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ULTRASONIC THICKNESS MEASUREMENT (UTM) CERTIFICATE

<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-13	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025

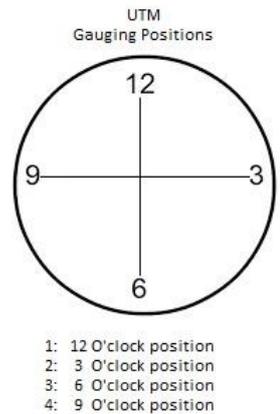
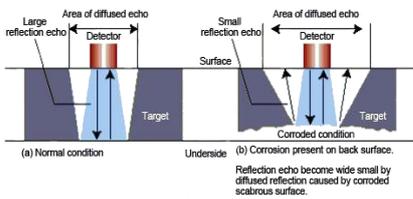
**Item Description:** mud pump pressure line components  
**Serial No#:** BY13-317 //// 48

<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications	<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned	<b>Surface Temperature:</b> 22 C°

**Measuring Equipment**

<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024

**Sketch or picture (direct on this page  or attached )**



**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)				Remarks
A29	Nil	Need to be Provided from OEM by the client	16.12	16.15	16.10	16.20	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b> 
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		





<b>Client:</b> Hilong Oil Services & Engineering	<b>Location:</b> Hilong - 22 / ZB – 622	<b>Inspection Date:</b> 07-Dec-2024
<b>Certificate No:</b> ATS-12-24-4628-UTM-043-14	<b>Work order &amp; Job No#:</b> ATS-12-24-4628	<b>Inspection Due Date:</b> 06-Dec-2025

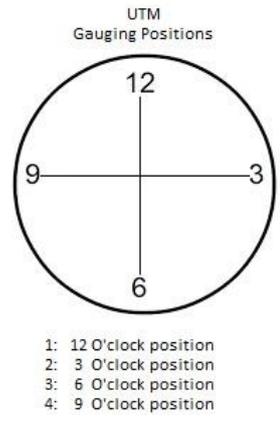
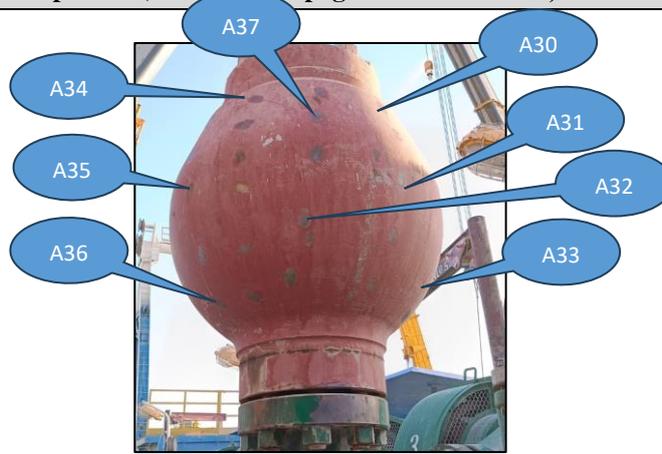
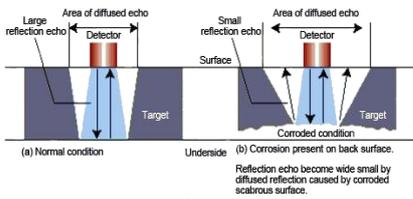
**Item Description:** mud pump pressure line components  
**Serial No#:** BY13-317 //// 3

<b>Relative Standards/Specifications:</b> ASTM E 797 & Client Specifications	<b>Material:</b> Carbon Steel
<b>Surface Condition:</b> Brushed and Cleaned	<b>Surface Temperature:</b> 22 C°

**Measuring Equipment**

<b>UTM Instrument - Maker:</b> Sona Test	<b>Model:</b> Sonagage IV	<b>S. No.:</b> 05058473	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024
<b>Pit Depth Gauge - Maker:</b> New Tech	<b>Model:</b> NAA-4-M11118	<b>S. No.:</b> 97594	<b>Calibration Date:</b> 28-June-2024	<b>Calibration Due Date:</b> 27-Dec-2024

**Sketch or picture (direct on this page  or attached )**



**UTM Results**

Position	Nominal Wall Thickness	Minimum Thickness (mm)	Measured Wall Thickness (mm)	Remarks
A30	Nil	Need to be Provided from OEM by the client	52.38	Need Review
A31		Need to be Provided from OEM by the client	52.29	Need Review
A32		Need to be Provided from OEM by the client	53.50	Need Review
A33		Need to be Provided from OEM by the client	53.22	Need Review
A34		Need to be Provided from OEM by the client	53.45	Need Review
A35		Need to be Provided from OEM by the client	53.80	Need Review
A36		Need to be Provided from OEM by the client	53.54	Need Review
A37		Need to be Provided from OEM by the client	54.20	Need Review

**Result:**  
 1- UTM WAS CARRIED OUT ON THE ITEM AS MENTIONED EARLIER AND ALL ACTUAL WALL THICKNESS READINGS **SHOULD BE REVIEWED AGAINST THE OEM DOCUMENTS WHICH SHALL BE PROVIDED FROM THE OEM BY THE CLIENT**

<b>Inspector Name:</b>	Aram Dlawar	<b>Reviewed by:</b>	Hasan Omran	<b>Signature &amp; Stamp</b>
<b>Qualification:</b>	ASNT Level II	<b>Date:</b>	08-Dec-2024	
<b>Signature:</b>		<b>Signature:</b>		

