

MAJOR INSPECTION CERIFICATE

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

| | | | |
|---------------------|--|-----------------------|-----------------------------|
| CLIENT: | HALLIBURTON | REPORT No.: | QC-24-04-67-TSS-NDT-MAJ-002 |
| LOCATION: | TSS WORKSHOP & INSPECTION TEST AREA | JOB NO : | 300424 |
| WORK ORDER # | | SPECIFICATION: | ASTM E709 & ASTM E 797 |
| INSPECTION DATE: | Sunday, April 28, 2024 | NEXT INSPECTION DATE: | ANNUAL INSPECTION |
| TYPE OF INSPECTION: | VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING | | |
| DESCRIPTION: | FRAC TANK 500 BBL | SAP NO.: | 11243967 |
| MANUFACTURER: | Alshirawi Equipment Company | | |

INSPECTION DETAILS

RIGHT SIDE FRAC TANK

LEFT SIDE FRAC TANK

BACK SIDE FRAC TANK

FRONT SIDE FRAC TANK

ONLINE TRACEABILITY

* ALL READINGS IN MM
 **MINIMUM THICKNESS PROVIDED BY CUSTOMER

| ANGLE | THICKNESS AT POSITION | | | | | | MINIMUM THICKNESS | FINAL REMARKS |
|---------------------|-----------------------|------|------|------|------|------|-------------------|---------------|
| | A | B | C | D | E | F | | |
| RIGHT SIDE TOP 1 | 7.52 | 7.57 | 7.50 | 7.36 | 7.62 | 7.68 | 4.67 MM | SATISFACTORY |
| RIGHT SIDE MIDDEL 2 | 7.57 | 7.65 | 7.70 | 7.76 | 7.99 | 7.91 | | |
| RIGHT SIDE BOTTOM 3 | 7.66 | 7.68 | 7.45 | 7.48 | 7.40 | 7.44 | | |
| | G | H | I | J | K | L | | |
| LEFT SIDE TOP 1 | 7.83 | 7.75 | 7.80 | 7.86 | 7.90 | 7.82 | | |
| LEFT SIDE MIDDEL 2 | 7.92 | 7.94 | 7.56 | 7.59 | 7.51 | 7.55 | | |
| LEFT SIDE BOTTOM 3 | 7.78 | 7.80 | 7.63 | 7.66 | 7.58 | 7.62 | | |
| | M | | N | | O | | | |
| BACK SIDE TOP 1 | 8.84 | | 9.08 | | 9.12 | | | |
| BACK SIDE MIDDEL 2 | 8.93 | | 9.07 | | 8.72 | | | |
| BACK SIDE BOTTOM 3 | 9.02 | | 8.81 | | 9.00 | | | |
| | P | | Q | | R | | | |
| FRONT SIDE TOP 1 | 9.05 | | 8.81 | | 8.85 | | | |
| FRONT SIDE MIDDEL 2 | 9.14 | | 8.81 | | 8.99 | | | |
| FRONT SIDE BOTTOM 3 | 8.87 | | 9.02 | | 8.73 | | | |

INSPECTION RESULT

| | | |
|----------|----------|--------------------------|
| VT & MPI | Accepted | * ACCORDING TO ASTM E709 |
| UT | Accepted | ACCORDING TO ASTM E 797 |

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

INSPECTION EQUIPMENT DETAILS

TECHNICAL DETAILS

| INSPECTION EQUIPMENT DETAILS | | | | TECHNICAL DETAILS | | | |
|-------------------------------|-----------|--------------|-----------|------------------------------|-------------|----------------------|-------------|
| AC YOKE S.N: | 201504048 | CAL DUE DATE | 14-Oct-24 | White Contrast WCP-2 | MANUFACTURE | BATCH NO | EXPIRE DATE |
| Digital Lux Meter WHITE LIGHT | 2722003 | CAL DUE DATE | 16-Oct-24 | | Magnaflux | 220602 | JUN.2025 |
| UT THICKNESS GAUGE: | 3997 | CAL DUE DATE | 14-Oct-24 | Black Magnetic Ink 7HF | MANUFACTURE | BATCH NO | EXPIRE DATE |
| UT TEST BLOCK: | NoBo5087 | CAL DUE DATE | 15-Oct-24 | | Magnaflux | 220605 | JULY.2025 |
| ASTM Test Block: | 1657 | CAL DUE DATE | 14-Oct-24 | Fluorescent Magnetic Ink 7HF | | 1.2 to 2.4 ml/100 ml | |
| WHITE LIGHT INTENSITY: | 3620 lux | | | | | | |

PERSON DETAILS

| | | | | | |
|--------------------|----------------|------------------------|----------------|---------|--|
| INSPECTOR NAME: | Mohammad Ahmed | SENIOR INSPECTOR: | NAVEED HUSSAIN | CLIENT: | |
| QUALIFICATION: | ASNT - VSL 1 | INSPECTION SUPERVISOR: | HANI ALI | DESIGN: | |
| SIGNATURE & STAMP: | | | | DATE: | |

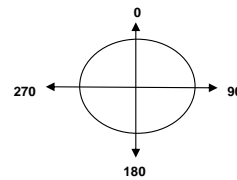
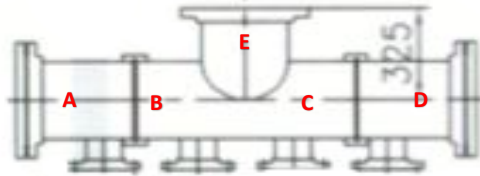


MAJOR INSPECTION CERIFICATE

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

| | | | |
|---------------------|---|-----------------------|-----------------------------|
| CLIENT: | HALLIBURTON | REPORT No.: | QC-24-04-67-TSS-NDT-MAJ-003 |
| LOCATION: | TSS WORKSHOP & INSPECTION TEST AREA | JOB NO : | 300424 |
| WORK ORDER # | | SPECIFICATION: | ASTM E709 & ASTM E 797 |
| INSPECTION DATE: | Sunday, April 28, 2024 | NEXT INSPECTION DATE: | ANNUAL INSPECTION |
| TYPE OF INSPECTION: | VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING | | |
| DESCRIPTION: | FRAC TANK MANIFOLD | FRAC TANK SAP NO.: | 11243967 |

INSPECTION DETAILS



ONLINE TRACEABILITY

* ALL READINGS IN MM
**MINIMUM THICKNESS PROVIDED BY CUSTOMER



| ANGLE | THICKNESS AT POSITION | | | | | MINIMUM THICKNESS | FINAL REMARKS |
|-------|-----------------------|------|------|------|------|-------------------|---------------|
| | A | B | C | D | E | | |
| 0° | 9.09 | 9.26 | 9.23 | 9.16 | 8.95 | 4.67 MM | SATISFACTORY |
| 90° | 9.03 | 8.95 | 9.00 | 9.06 | 9.18 | | |
| 180° | 9.15 | 9.17 | 9.14 | 9.17 | 9.09 | | |
| 270° | 8.90 | 8.92 | 8.92 | 9.10 | 9.07 | | |

INSPECTION RESULT

| | | |
|----------|----------|--------------------------|
| VT & MPI | Accepted | * ACCORDING TO ASTM E709 |
| UT | Accepted | ACCORDING TO ASTM E 797 |

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797

| INSPECTION EQUIPMENT DETAILS | | | | TECHNICAL DETAILS | | | |
|----------------------------------|-----------|--------------|-----------|------------------------------|-------------|----------------------|-------------|
| AC YOKE S.N: | 201504048 | CAL DUE DATE | 14-Oct-24 | White Contrast WCP-2 | MANUFACTURE | BATCH NO | EXPIRE DATE |
| Digital Lux Meter WHITE LIGHT | 2722003 | CAL DUE DATE | 16-Oct-24 | | Magnaflux | 220602 | JUN.2025 |
| UT THICKNESS GAUGE: | 3997 | CAL DUE DATE | 14-Oct-24 | Black Magnetic Ink 7HF | MANUFACTURE | BATCH NO | EXPIRE DATE |
| UT TEST BLOCK: | NoBo5087 | CAL DUE DATE | 15-Oct-24 | | Magnaflux | 220605 | JULY.2025 |
| ASTM Test Block: | 1657 | CAL DUE DATE | 14-Oct-24 | Fluorescent Magnetic Ink 7HF | | 1.2 to 2.4 ml/100 ml | |
| WHITE LIGHT INTENSITY: | 3620 lux | | | | | | |

PERSON DETAILS

| | | | | | |
|--------------------|------------------|------------------------|----------------|---------|--|
| INSPECTOR NAME: | M. Shabbad Ahmed | SENIOR INSPECTOR: | NAVEED HUSSAIN | CLIENT: | |
| QUALIFICATION: | ASNT Level 2 | INSPECTION SUPERVISOR: | HANI ALI | HB&SIGN | |
| SIGNATURE & STAMP: | | | | DATE: | |

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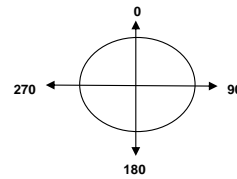
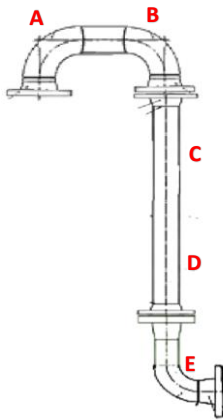
MAJOR INSPECTION CERTIFICATE

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

| | | | |
|---------------------|---|-----------------------|-----------------------------|
| CLIENT: | HALLIBURTON | REPORT No.: | QC-24-04-67-TSS-NDT-MAJ-004 |
| LOCATION: | TSS WORKSHOP & INSPECTION TEST AREA | JOB NO : | 300424 |
| WORK ORDER # | | SPECIFICATION: | ASTM E709 & ASTM E 797 |
| INSPECTION DATE: | Sunday, April 28, 2024 | NEXT INSPECTION DATE: | ANNUAL INSPECTION |
| TYPE OF INSPECTION: | VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING | | |

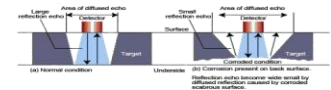
| | | | |
|--------------|-----------------------|--------------------|----------|
| DESCRIPTION: | FRAC TANK RELIEF LINE | FRAC TANK SAP NO.: | 11243967 |
|--------------|-----------------------|--------------------|----------|

INSPECTION DETAILS



ONLINE TRACEABILITY

* ALL READINGS IN MM
**MINIMUM THICKNESS PROVIDED BY CUSTOMER



| ANGLE | THICKNESS AT POSITION | | | | MINIMUM THICKNESS | FINAL REMARKS |
|-------|-----------------------|------|------|------|-------------------|---------------|
| | 0° | 90° | 180° | 270° | | |
| A | 6.62 | 6.74 | 6.57 | 6.48 | 4.67 MM | SATISFACTORY |
| B | 6.70 | 6.62 | 6.67 | 6.71 | | |
| C | 6.65 | 6.67 | 6.62 | 6.65 | | |
| D | 6.58 | 6.50 | 6.55 | 6.61 | | |
| E | 6.62 | 6.64 | 6.55 | 6.58 | | |

INSPECTION RESULT

| | | |
|----------|----------|--------------------------|
| VT & MPI | Accepted | * ACCORDING TO ASTM E709 |
| UT | Accepted | ACCORDING TO ASTM E 797 |

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709

U.T-The Above Item Was Found Acceptable As Per ASTM E 797




| INSPECTION EQUIPMENT DETAILS | | | | TECHNICAL DETAILS | | | |
|----------------------------------|-----------|--------------|-----------|------------------------------|-------------|----------------------|-------------|
| AC YOKE S.N: | 201504048 | CAL DUE DATE | 14-Oct-24 | White Contrast WCP-2 | MANUFACTURE | BATCH NO | EXPIRE DATE |
| Digital Lux Meter WHITE LIGHT | 2722003 | CAL DUE DATE | 16-Oct-24 | | Magnaflux | 220602 | JUN.2025 |
| UT THICKNESS GAUGE: | 3997 | CAL DUE DATE | 14-Oct-24 | Black Magnetic Ink 7HF | MANUFACTURE | BATCH NO | EXPIRE DATE |
| UT TEST BLOCK: | NoBo5087 | CAL DUE DATE | 15-Oct-24 | | Magnaflux | 220605 | JULY.2025 |
| ASTM Test Block: | 1657 | CAL DUE DATE | 14-Oct-24 | Fluorescent Magnetic Ink 7HF | | 1.2 to 2.4 ml/100 ml | |
| WHITE LIGHT INTENSITY: | 3620 lux | | | | | | |

PERSON DETAILS



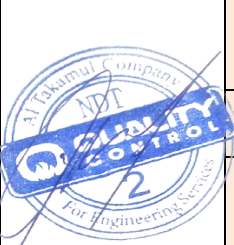
| | | | | | |
|--------------------|--------------------------------|------------------------|---------------|---------|--|
| INSPECTOR NAME: | M. Saad Ahmad | SENIOR INSPECTOR: | NAVED HUSSAIN | CLIENT: | |
| QUALIFICATION: | ASNT - Level II MPI - E 709 | INSPECTION SUPERVISOR: | HANI ALI | HB&SIGN | |
| SIGNATURE & STAMP: | | | | DATE: | |

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| MAJOR INSPECTION CERIFICATE | | | | | | | | | | | | | |
|--|-----------------|--|------------------|----------------------|--|---|---|-------------------------------------|---------|------------|--------------------|--|--|
| Client: | | HALLIBURTON (TSS) | | | Report No: | | QC-24-04-67-TSS-NDT-MAJ-005 | | | | | | |
| Location: | | TSS WORKSHOP & INSPECTION TEST AREA | | | WORK ORDER | | | | | | | | |
| Inspection Date: | | Sunday, April 28, 2024 | | | Next Inspection Date: | | ANNUAL INSPECTION | | | | | | |
| Type Of Inspection: | | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | | | Specification: | | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A | | | | | | |
|  | | | | | UNIT DESCRIPTION: | | FLANGE: 4" 150 CL X 4" 206 THREAD | | | | | | |
| | | | | | UNIT S/N: | | 184-01 | | | | | | |
| | | | | | FRAC TANK SAP NO: | | 11243967 | | | | | | |
| | | | | | INSPECTION RESULT : | | | | | | | | |
| | | | | | VISUAL , THOROUGH EXAMINATION | | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION | | | | | | |
| | | | | | MAGNETIC PARTICLE INSPECTION | | Thread & Available critical areas inspected and found free from cracks and other defects | | | | | | |
| | | | | | FINAL RESULTS | | THE ABOVE INSPECTED AREAS WAS ACCEPTED | | | | | | |
| COMMENT: | | | | |  | | | | | | | | |
| (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | | | | | | | | | | | | | |
| EQUIPMENT DETAILS | | | | | PERSON DETAILS | | | REVIEW BY | | | | | |
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 µw/cm ² | INSPECTOR NAME: M.Shahzad Ahmed | | SENIOR INSPECTOR: NAVEED HUSSAIN | | | | | |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | | | | | | |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | QUALIFICATION: ASNT LEVEL II MT & PT & VT | | SUPERVISOR: HANI ALI | | | | | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | | | | | MARCH,2025 | | | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 |  | | CLIENT: | | | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | | TECHNICAL DETAILS | | | Black Magnetic Ink Manufacture:7HF | | | | | | STAMP & SIGNATURE: | | |
| 3620 Lux/S.NO:2722003 | | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | | Batch No:220605 | | | | | | | |
| Cal Due Date:16.OCT.2024 | | Black Magnetic Ink Concentration 7 HF | | 1.2 to 2.4 ml/100 ml | | EXPIRE DATE: Jul-25 | | | | | | | |


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| MAJOR INSPECTION CERIFICATE | | | | | | | | | | | |
|--|-----------------|--|------------------|-------------------------------|--|---|---|--|----------------|------------|--|
| Client: | | HALLIBURTON (TSS) | | | Report No: | | QC-24-04-67-TSS-NDT-MAJ-006 | | | | |
| Location: | | TSS WORKSHOP & INSPECTION TEST AREA | | | WORK ORDER | | | | | | |
| Inspection Date: | | Sunday, April 28, 2024 | | | Next Inspection Date: | | ANNUAL INSPECTION | | | | |
| Type Of Inspection: | | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | | | Specification: | | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A | | | | |
|  | | | | UNIT DESCRIPTION: | | FLANGE: 4" 150 CL X 4" 206 THREAD | | | | | |
| | | | | UNIT S/N: | | 184-02 | | | | | |
| | | | | FRAC TANK SAP NO: | | 11243967 | | | | | |
| | | | | INSPECTION RESULT : | | | | | | | |
| | | | | VISUAL , THOROUGH EXAMINATION | | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION | | | | | |
| | | | | MAGNETIC PARTICLE INSPECTION | | Thread & Available critical areas inspected and found free from cracks and other defects | | | | | |
| | | | | FINAL RESULTS | | THE ABOVE INSPECTED AREAS WAS ACCEPTED | | | | | |
| COMMENT: | | | | | | | |  | | | |
| (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | | | | | | | | | | | |
| EQUIPMENT DETAILS | | | | | PERSON DETAILS | | | REVIEW BY | | | |
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 μw/cm ² | INSPECTOR NAME: M.Shahzad Ahmed | | SENIOR INSPECTOR: | NAVEED HUSSAIN | | |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | | | | |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | QUALIFICATION: ASNT LEVEL II MT & PT & VT | | SUPERVISOR: | HANI ALI | | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | | | | | MARCH,2025 | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 |  | | CLIENT: | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | | TECHNICAL DETAILS | | | Black Magnetic Ink Manufacture:7HF | | | | | | |
| 3620 Lux/S.NO:2722003 | | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | | Batch No:220605 | | | | | |
| Cal Due Date:16.OCT.2024 | | Black Magnetic Ink Concentration 7 HF | | 1.2 to 2.4 ml/100 ml | | EXPIRE DATE: Jul-25 | | | | | |

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MAJOR INSPECTION CERIFICATE

| | | | |
|----------------------------|--|------------------------------|---|
| Client: | HALLIBURTON (TSS) | Report No: | QC-24-04-67-TSS-NDT-MAJ-007 |
| Location: | TSS WORKSHOP & INSPECTION TEST AREA | WORK ORDER | |
| Inspection Date: | Sunday, April 28, 2024 | Next Inspection Date: | ANNUAL INSPECTION |
| Type Of Inspection: | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | Specification: | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A |

| | | |
|---|---|---|
|  | UNIT DESCRIPTION: | FLANGE: 4" 150 CL X 4" 206 WING |
| | UNIT S/N: | 184-03 |
| | FRAC TANK SAP NO: | 11243967 |
| | INSPECTION RESULT : | |
| | VISUAL , THOROUGH EXAMINATION | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION |
| | MAGNETIC PARTICLE INSPECTION | Thread & Available critical areas inspected and found free from cracks and other defects |
| | FINAL RESULTS | THE ABOVE INSPECTED AREAS WAS ACCEPTED |
| | COMMENT: (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | |

| EQUIPMENT DETAILS | | | | | | PERSON DETAILS | | REVIEW BY | | |
|--|--|----------------------|----------------------|----------------------|--|---|---|--|--------------------|----------|
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 μw/cm ² | INSPECTOR NAME: M.Shahzad Ahmed |  | SENIOR INSPECTOR: | NAVEED HUSSAIN | |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | QUALIFICATION: ASNT LEVEL II MT & PT & VT | SUPERVISOR: | HANI ALI |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | | | STAMP & SIGNATURE: | CLIENT: | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | MARCH,2025 | | | | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 | | | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | TECHNICAL DETAILS | | | | Black Magnetic Ink Manufacture:7HF | | | | | |
| 3620 Lux/S.NO:2722003 | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | | Batch No:220605 | | | | | |
| Cal Due Date:16.OCT.2024 | Black Magnetic Ink Concentration 7 HF | | 1.2 to 2.4 ml/100 ml | | EXPIRE DATE: | Jul-25 | | | | |

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MAJOR INSPECTION CERIFICATE

| | | | |
|----------------------------|--|------------------------------|---|
| Client: | HALLIBURTON (TSS) | Report No: | QC-24-04-67-TSS-NDT-MAJ-008 |
| Location: | TSS WORKSHOP & INSPECTION TEST AREA | WORK ORDER | |
| Inspection Date: | Sunday, April 28, 2024 | Next Inspection Date: | ANNUAL INSPECTION |
| Type Of Inspection: | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | Specification: | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A |

| | | |
|--|---|---|
| | UNIT DESCRIPTION: | FLANGE: 4" 150 CL X 4" 206 WING |
| | UNIT S/N: | 184-04 |
| | FRAC TANK SAP NO: | 11243967 |
| | INSPECTION RESULT : | |
| | VISUAL , THOROUGH EXAMINATION | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION |
| | MAGNETIC PARTICLE INSPECTION | Thread & Available critical areas inspected and found free from cracks and other defects |
| | FINAL RESULTS | THE ABOVE INSPECTED AREAS WAS ACCEPTED |
| | COMMENT: (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | |

| EQUIPMENT DETAILS | | | | | | PERSON DETAILS | | REVIEW BY | | |
|---|-----------------|--|------------------|---|--|---|--|--|--------------------|----------|
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 μw/cm ² | INSPECTOR NAME: M.Shahzad Ahmed | | SENIOR INSPECTOR: | NAVEED HUSSAIN | |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | QUALIFICATION: ASNT LEVEL II MT & PT & VT | SUPERVISOR: | HANI ALI |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | | | STAMP & SIGNATURE: | CLIENT: | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | MARCH,2025 | | | | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 | | | | |
| TECHNICAL DETAILS | | | | Black Magnetic Ink Manufacture:7HF | | | | | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | | | | Batch No:220605 | | | | | | |
| 3620 Lux/S.NO:2722003 | | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | | | | | | |
| Cal Due Date:16.OCT.2024 | | Black Magnetic Ink Concentration 7 HF | | 1.2 to 2.4 ml/100 ml | | | | | | |
| | | | | EXPIRE DATE: | Jul-25 | | | | | |

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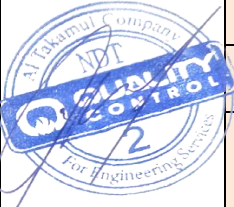
MAJOR INSPECTION CERIFICATE

| | | | |
|----------------------------|--|------------------------------|---|
| Client: | HALLIBURTON (TSS) | Report No: | QC-24-04-67-TSS-NDT-MAJ-009 |
| Location: | TSS WORKSHOP & INSPECTION TEST AREA | WORK ORDER | |
| Inspection Date: | Sunday, April 28, 2024 | Next Inspection Date: | ANNUAL INSPECTION |
| Type Of Inspection: | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | Specification: | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A |




| | | |
|--|---|---|
| | UNIT DESCRIPTION: | FLANGE: 4" 150 CL X 4" 206 WING |
| | UNIT S/N: | 184-05 |
| | FRAC TANK SAP NO: | 11243967 |
| | INSPECTION RESULT : | |
| | VISUAL , THOROUGH EXAMINATION | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION |
| | MAGNETIC PARTICLE INSPECTION | Thread & Available critical areas inspected and found free from cracks and other defects |
| | FINAL RESULTS | THE ABOVE INSPECTED AREAS WAS ACCEPTED |
| | COMMENT: (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | |

| EQUIPMENT DETAILS | | | | | | PERSON DETAILS | | REVIEW BY | |
|---|--|----------------------|----------------------|----------------------|--|---|--|--------------------------|----------------|
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 μw/cm ² | INSPECTOR NAME: M.Shahzad Ahmed | | SENIOR INSPECTOR: | NAVEED HUSSAIN |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | SUPERVISOR: | HANI ALI |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | | | CLIENT: | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | MARCH,2025 | | | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 | | | |
| TECHNICAL DETAILS | | | | | | STAMP & SIGNATURE: | | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | | Black Magnetic Ink Manufacture:7HF | | | | |
| 3620 Lux/S.NO:2722003 | Black Magnetic Ink Concentration 7 HF | | 1.2 to 2.4 ml/100 ml | | Batch No:220605 | | | | |
| Cal Due Date:16.OCT.2024 | | | | | EXPIRE DATE: | Jul-25 | | | |

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| MAJOR INSPECTION CERIFICATE | | | | | | | | | |
|---|--|----------------------|------------------|--------------------------------------|---|--|--|--|--|
| Client: | HALLIBURTON (TSS) | | | Report No: | QC-24-04-67-TSS-NDT-MAJ-010 | | | | |
| Location: | TSS WORKSHOP & INSPECTION TEST AREA | | | WORK ORDER | | | | | |
| Inspection Date: | Sunday, April 28, 2024 | | | Next Inspection Date: | ANNUAL INSPECTION | | | | |
| Type Of Inspection: | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | | | Specification: | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A | | | | |
|  | | | | UNIT DESCRIPTION: | FLANGE: 4" 150 CL X 4" 206 WING | | | | |
| | | | | UNIT S/N: | 184-06 | | | | |
| | | | | FRAC TANK SAP NO: | 11243967 | | | | |
| | | | | INSPECTION RESULT : | | | | | |
| | | | | VISUAL , THOROUGH EXAMINATION | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION | | | | |
| | | | | MAGNETIC PARTICLE INSPECTION | Thread & Available critical areas inspected and found free from cracks and other defects | | | | |
| | | | | FINAL RESULTS | THE ABOVE INSPECTED AREAS WAS ACCEPTED | | | | |
| COMMENT: (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | | | | | |  | | | |
| EQUIPMENT DETAILS | | | | PERSON DETAILS | | | REVIEW BY | | |
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 μw/cm ² | | INSPECTOR NAME: M.Shahzad Ahmed | SENIOR INSPECTOR: NAVEED HUSSAIN | |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | | |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | | | | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | MARCH,2025 | QUALIFICATION: ASNT LEVEL II MT & PT & VT | SUPERVISOR: HANI ALI | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 | | | |
| TECHNICAL DETAILS | | | | | Black Magnetic Ink Manufacture:7HF | | STAMP & SIGNATURE:  | CLIENT: [Blank] | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | | | | Batch No:220605 | | | | | |
| 3620 Lux/S.NO:2722003 | Wet FLUORESCENT Particle Concentration 14 HF | 0.1 to 0.4 ml/100 ml | | Batch No:220605 | | | | | |
| Cal Due Date:16.OCT.2024 | Black Magnetic Ink Concentration 7 HF | 1.2 to 2.4 ml/100 ml | | EXPIRE DATE: | Jul-25 | | | | |

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| MAJOR INSPECTION CERIFICATE | | | | | | | | | | | |
|--|-----------------|--|------------------|----------------------|--|---|---|-------------------------------------|---------|------------|--|
| Client: | | HALLIBURTON (TSS) | | | Report No: | | QC-24-04-67-TSS-NDT-MAJ-011 | | | | |
| Location: | | TSS WORKSHOP & INSPECTION TEST AREA | | | WORK ORDER | | | | | | |
| Inspection Date: | | Sunday, April 28, 2024 | | | Next Inspection Date: | | ANNUAL INSPECTION | | | | |
| Type Of Inspection: | | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | | | Specification: | | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API 6A | | | | |
|  | | | | | UNIT DESCRIPTION: | | FLANGE: 4" 150 CL X 4" 206 WING | | | | |
| | | | | | UNIT S/N: | | 184-07 | | | | |
| | | | | | FRAC TANK SAP NO: | | 11243967 | | | | |
| | | | | | INSPECTION RESULT : | | | | | | |
| | | | | | VISUAL , THOROUGH EXAMINATION | | VISUAL & MAGNETIC PARTICLE INSPECTION (M.P.I.) HAD BEEN DONE ON THE AVAILABLE AREAS FOR THE ABOVE DESCRIPTION | | | | |
| | | | | | MAGNETIC PARTICLE INSPECTION | | Thread & Available critical areas inspected and found free from cracks and other defects | | | | |
| | | | | | FINAL RESULTS | | THE ABOVE INSPECTED AREAS WAS ACCEPTED | | | | |
| COMMENT: | | | | |  | | | | | | |
| (MPI Wet Fluorescent inspection Thread With UltraViolet Light) Magnetic Particle Inspection With A/C Hand Yoke , Black & White Contrast | | | | | | | | | | | |
| EQUIPMENT DETAILS | | | | | PERSON DETAILS | | | REVIEW BY | | | |
| EQUIPMENT : | AC/DC HAND Yoke | EQUIPMENT : | Shooting Coil DC | EQUIPMENT : | UV BLACK LIGHT: 3210 µw/cm ² | INSPECTOR NAME: M.Shahzad Ahmed | | SENIOR INSPECTOR: NAVEED HUSSAIN | | | |
| S.NO: | 201504048 | S.NO: | 22650 | S.NO: | 1898977 | | | | | | |
| Cal Due Date: | 14.OCT.2024 | Cal Due Date: | 15.OCT.2024 | Cal Due Date: | 14.OCT.2024 | QUALIFICATION: ASNT LEVEL II MT & PT & VT | | SUPERVISOR: HANI ALI | | | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | | | | | MARCH,2025 | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 |  | | CLIENT: | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | | TECHNICAL DETAILS | | | Black Magnetic Ink Manufacture:7HF | | | | | | |
| 3620 Lux/S.NO:2722003 | | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | | Batch No:220605 | | | | | |
| Cal Due Date:16.OCT.2024 | | Black Magnetic Ink Concentration 7 HF | | 1.2 to 2.4 ml/100 ml | | EXPIRE DATE: Jul-25 | | | | | |

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MAJOR INSPECTION CERTIFICATE

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

| | | | |
|---------------------|--|-----------------------|-----------------------------|
| CLIENT: | HALLIBURTON | REPORT No.: | QC-24-04-67-TSS-NDT-MAJ-012 |
| LOCATION: | TSS WORKSHOP & INSPECTION TEST AREA | JOB NO : | 300424 |
| WORK ORDER # | | SPECIFICATION: | ASTM E709 & ASTM E 797 |
| INSPECTION DATE: | Sunday, April 28, 2024 | NEXT INSPECTION DATE: | ANNUAL INSPECTION |
| TYPE OF INSPECTION: | VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING | | |

| | | | |
|--------------|---------------------|--------------------|----------|
| DESCRIPTION: | FRAC TANK FILL LINE | FRAC TANK SAP NO.: | 11243967 |
|--------------|---------------------|--------------------|----------|

INSPECTION DETAILS

* ALL READINGS IN MM
**MINIMUM THICKNESS PROVIDED BY CUSTOMER

| ANGLE | THICKNESS AT POSITION | | | | MINIMUM THICKNESS | FINAL REMARKS |
|-------|-----------------------|------|------|------|-------------------|---------------|
| | 0° | 90° | 180° | 270° | | |
| A | 6.72 | 6.75 | 6.68 | 6.50 | 4.67 MM | SATISFACTORY |
| B | 6.71 | 6.63 | 6.68 | 6.72 | | |
| C | 6.66 | 6.68 | 6.63 | 6.66 | | |
| D | 6.53 | 6.45 | 6.50 | 6.56 | | |
| E | 6.61 | 6.53 | 6.58 | 6.62 | | |
| F | 6.56 | 6.58 | 6.41 | 6.62 | | |
| G | 6.57 | 6.59 | 6.56 | 6.65 | | |

INSPECTION RESULT

| | | |
|----------|----------|--------------------------|
| VT & MPI | Accepted | * ACCORDING TO ASTM E709 |
| UT | Accepted | ACCORDING TO ASTM E 797 |

Inspection Evaluation

(MPI) The Above Item Has No Significant Discontinuous At The Time Of Inspection And Found Acceptable According To ASTM E709
 U.T-The Above Item Was Found Acceptable As Per ASTM E 797

INSPECTION EQUIPMENT DETAILS

TECHNICAL DETAILS

| | | | | | | | |
|----------------------------------|-----------|--------------|-----------|------------------------------|----------------------|----------|-------------|
| AC YOKE S.N: | 201504048 | CAL DUE DATE | 14-Oct-24 | White Contrast WCP-2 | MANUFACTURE | BATCH NO | EXPIRE DATE |
| Digital Lux Meter WHITE LIGHT | 2722003 | CAL DUE DATE | 16-Oct-24 | | Magnaflux | 220602 | JUN.2025 |
| UT THICKNESS GAUGE: | 3997 | CAL DUE DATE | 14-Oct-24 | Black Magnetic Ink 7HF | MANUFACTURE | BATCH NO | EXPIRE DATE |
| UT TEST BLOCK: | NoBo5087 | CAL DUE DATE | 15-Oct-24 | | Magnaflux | 220605 | JULY.2025 |
| ASTM Test Block: | 1657 | CAL DUE DATE | 14-Oct-24 | Fluorescent Magnetic Ink 7HF | 1.2 to 2.4 ml/100 ml | | |
| WHITE LIGHT INTENSITY: | 3620 lux | | | | | | |

PERSON DETAILS

| | | | | | |
|--------------------|-----------------------|------------------------|----------------|---------|--|
| INSPECTOR NAME: | M. Saad Ahmad | SENIOR INSPECTOR: | NAVEED HUSSAIN | CLIENT: | |
| QUALIFICATION: | ASNT CP-1 MPI PT-1 | INSPECTION SUPERVISOR: | HANI ALI | HB&SIGN | |
| SIGNATURE & STAMP: | | | | DATE: | |

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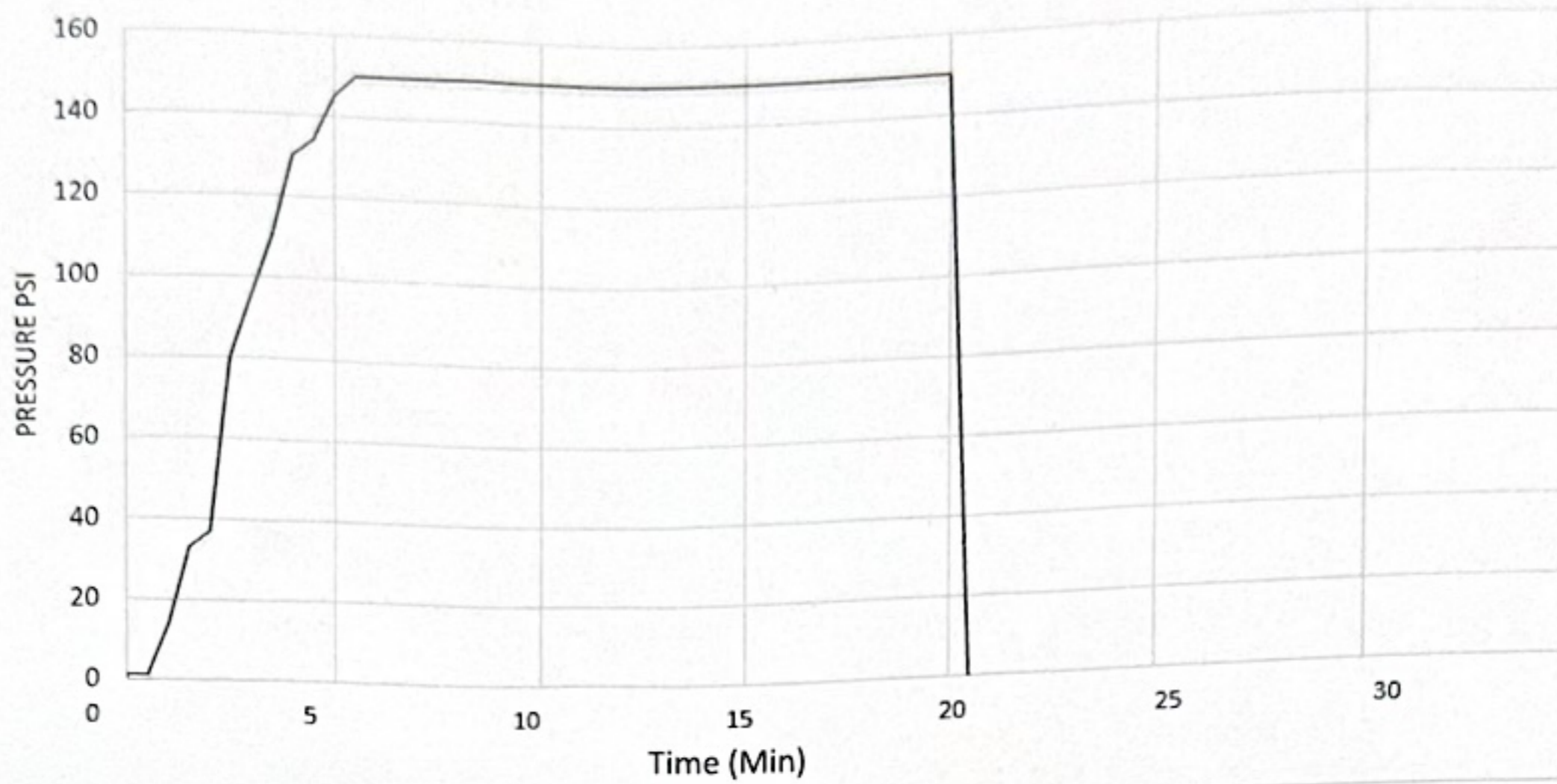


Data Collection Report

| Gauge Information | |
|-------------------|---------------|
| Serial Number | 468066 |
| Model | XP2I |
| Message Store | TSS test area |
| Units | PSI |
| SCALE | 15000 PSI |

| Run Info | |
|------------|------------|
| Start Time | 11:00 AM |
| Stop Time | 11:21 AM |
| Test Date | 01 May 24 |
| EQ NUMBER | 11243967 |
| CAL DATE | 2.Aug.2023 |

READING



TESTED BY : Feras Abbas
APPROVED BY: Hassan Kamel
COMMENTS: Inlet Test

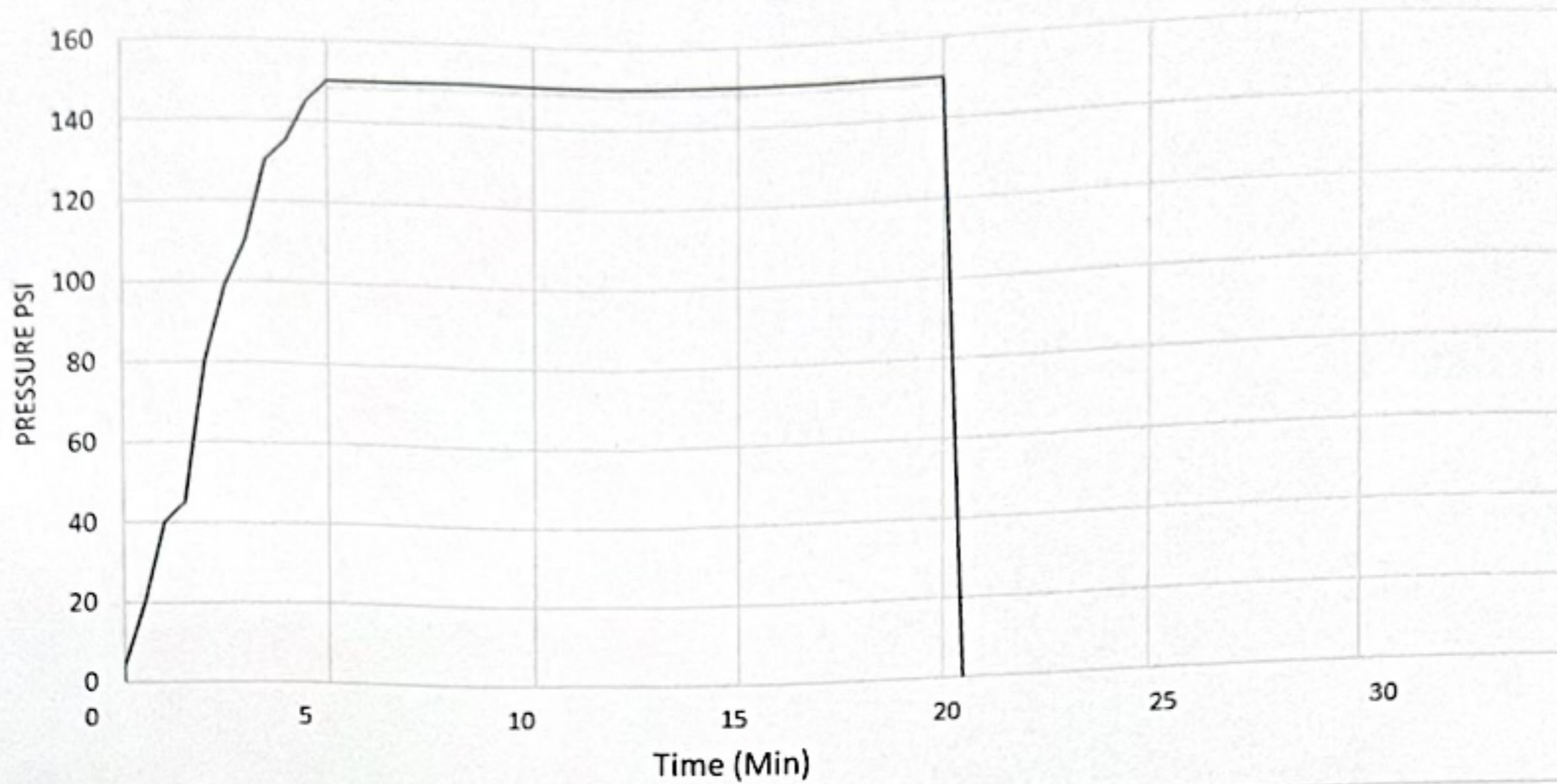


Data Collection Report

| Gauge Information | |
|-------------------|---------------|
| Serial Number | 468066 |
| Model | XP2I |
| Message Store | TSS test area |
| Units | PSI |
| SCALE | 15000 PSI |

| Run Info | |
|------------|------------|
| Start Time | 11:41 AM |
| Stop Time | 12:02 PM |
| Test Date | 01 May 24 |
| EQ NUMBER | 11243967 |
| CAL DATE | 2.Aug.2023 |

READING



TESTED BY : Feras Abbas
APPROVED BY: Hassan Kamel
COMMENTS: Outlet Test

