

CERTIFICATE OF QUALIFICATION VISUAL AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING INSPECTION & WITNESS PRESSURE TEST

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

| | | | |
|----------------------------|--|------------------------|---|
| CLIENT: | HALLIBURTON | REPORT No.: | QC-24-05-TSS-NDT-021 |
| LOCATION: | TSS WORKSHOP & INSPECTION TEST AREA | STANDARD: | ASTM E709 & ASTM E797 & ASME SECTION V ARTICLE 5,10 & 27 & ASME B31.1, H2S STANDARD NACE MQ-01-75 |
| WORK ORDER # | 326589884 | | |
| DATE OF INSP: | Monday, May 13, 2024 | INSP. DUE DATE: | Monday, May 12, 2025 |
| TYPE OF INSPECTION: | VISUAL INSPECTION, PRESSURE TEST AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING | | |

| | | | |
|-------------------------------|----------------------------|----------------------------|----------------------------------|
| DESCRIPTION: | SSV 3 1/16" 15K | CHOKE MANIFOLD # | 11483048 |
| MANUFACTURER: | WORD WIDE OIL FIELD | SERIAL NO: | 101869561 |
| INSPECTION DETAILS | | | |
| Max. Working Pressure: | 15,000 PSI | Holding Time: | 18 Min |
| Low pressure: | 300 PSI | Holding Time: | 05 Min |
| Pump S.N.: | 13119220 Cal DUE. AUG.2024 | Pressure Gauge NO.: | 218230280019 Cal DUE. MARCH.2025 |

Reflection echo become wide small by different reflection caused by corroded scabrous surface.

A:12'O CLOCK / FORWARD
 B:3'O CLOCK / CENTER
 C:6'O CLOCK / AFT

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

ONLINE TRACEABILITY

| POINTS | THICKNESS AT POSITION | | | | MINIMUM THICKNESS | | |
|--------|-----------------------|-------------|-----------|-----------|-------------------|-----------|-----------|
| | SECTION-1 A | SECTION-1 B | SECTION-2 | SECTION-3 | SECTION-1 | SECTION-2 | SECTION-3 |
| 0° | 1.452 | 1.480 | 2.965 | 2.904 | 1.290 | 2.650 | 2.460 |
| 90° | 1.464 | 1.478 | 2.951 | 2.919 | 1.290 | 2.650 | 2.460 |
| 180° | 1.471 | 1.489 | 2.903 | 2.861 | 1.290 | 2.650 | 2.460 |
| 270° | 1.475 | 1.481 | 2.940 | 2.954 | 1.290 | 2.650 | 2.460 |

| | | |
|--------------------------|----------|---|
| INSPECTION RESULT | | |
| VT & MPI | Accepted | * ACCORDING TO ASTM E709 |
| UT | Accepted | According to ASME SECTION V ARTICLE 5 (ASTM E 797) |
| BODY | Accepted | *** These Are The Actual Readings Need To Follow As Per Halliburton Acceptance Criteria |

Inspection Evaluation

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



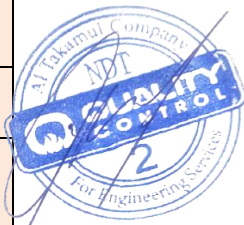
U.T-The Above Item Was Found Acceptable As Per ASME SECTION V ARTICLE 5 (ASTM E 797)

Pressure Test-The Above Item was Pressure Tested up to 300 PSI a low Pressure Hold for 5 min And Maximum Working pressure 15.000 psi Hold 18 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

| INSPECTION EQUIPMENT DETAILS | | | | TECHNICAL DETAILS | | | |
|--|-----------|---------------------|-----------|-------------------------------------|----------------------|-----------------|--------------------|
| AC YOKE S.N: | 201504052 | CAL DUE DATE | 12-Aug-24 | White Contrast WCP-2 | MANUFACTURER | BATCH NO | EXPIRE DATE |
| Digital Lux Meter WHITE LIGHT | 2722003 | CAL DUE DATE | 14-Aug-24 | | Magnaflux | 220602 | JUN,2025 |
| UT THICKNESS GAUGE: | 3997 | CAL DUE DATE | 14-Aug-24 | Black Magnetic Ink 7HF | MANUFACTURE | BATCH NO | EXPIRE DATE |
| UT TEST BLOCK: | NoBo5087 | CAL DUE DATE | 14-Aug-24 | | Magnaflux | 220605 | JULY,2025 |
| ASTM Test Block: | 1657 | CAL DUE DATE | 12-Aug-24 | Fluorescent Magnetic Ink 7HF | 1.2 to 2.4 ml/100 ml | | |
| WHITE LIGHT INTENSITY: | 3620 lux | | | | | | |

| PERSON DETAILS | | | | |
|-------------------------------|----------------|-------------------------------|----------------|-----------------|
| INSPECTOR NAME: | M.Shabaz Ahmed | SENIOR INSPECTOR: | NAVEED HUSSAIN | CLIENT: |
| QUALIFICATION: | UT,VT,MPI | INSPECTION SUPERVISOR: | HANI ALI | HRDESIGN |
| SIGNATURE & STAMP: | | | | DATE: |



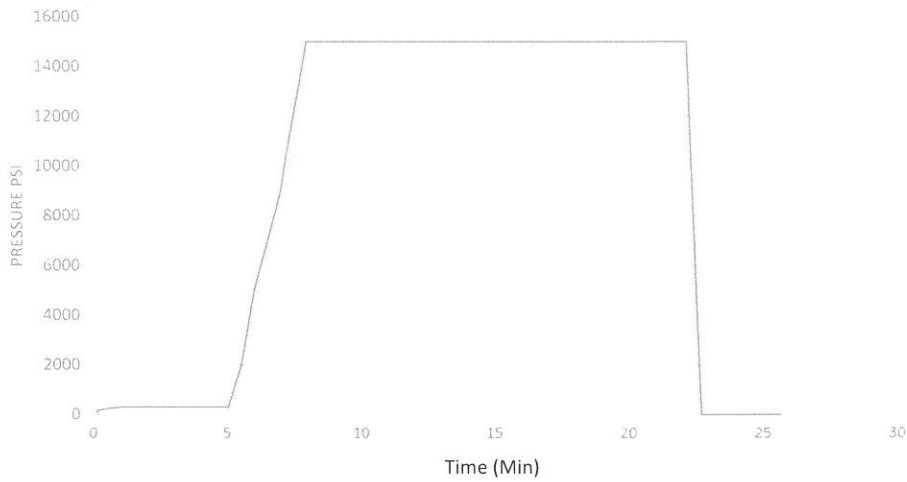
| CERTIFICATION OF VISUAL, THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | | | | | | | | | | | | | |
|---|--|---|----------------------|----------------------|--|----------------------|--|--|---|--|--|--|--|
| Client: | | HALLIBURTON(TSS) | | | Report No: | | QC-24-05-TSS-MAJ-NDT-022 | | | | | | |
| Location: | | TSS (Burjesia Halliburton Camp) | | | WO Number: | | 326589884 | | | | | | |
| Date: | | Monday, May 13, 2024 | | | Next Inspection Date: | | Monday, May 12, 2025 | | | | | | |
| Type Of Inspection: | | VISUAL , THOROUGH EXAMINATION & MAGNETIC PARTICLE INSPECTION | | | Specification: | | ASTM E709 & ASTM E 1444 (2016) ASME V Article 7 (2019) & API6A | | | | | | |
|  | | | | | UNIT DESCRIPTION: | | FLANGE 3 1/16" 15 K X 3" 1502 THREAD | | | | | | |
| | | | | | UNIT S/N: | | 12421 | | | | | | |
| | | | | | INSPECTION RESULT : | | | | | | | | |
| | | | | | VISUAL , THOROUGH EXAMINATION | | Unit fully inspected and found free from deforms, cracks, corrosion & mechanical damage | | | | | | |
| | | | | | MAGNETIC PARTICLE INSPECTION | | Thread & Available critical areas inspected and found free from cracks and other defects | | | | | | |
| FINAL RESULTS | | unit found satisfactory and free of defects at the time of inspection | | | | | | |  | | | | |
| 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: 3120 μw/cm² | | | | | |
| S.NO: | | 201504052 | S.NO: | | 22650 | S.NO: | | 1898977 | | | | | |
| Cal Due Date: | | 12.AUG.2024 | Cal Due Date: | | 12.AUG.2024 | Cal Due Date: | | 12.AUG.2024 | | | | | |
| FLUORESCENT 14HF | | Magnaflux | Batch No: | 220306 | EXPIRE DATE: | MARCH,2025 | | INSPECTOR NAME: M.SHAHZAD AHMED QUALIFICATION: ASNT LEVEL II MT & PT & VT  | | | | | |
| White Contrast Paint Manufacture: | | Magnaflux | Batch No: | 220602 | EXPIRE DATE: | JUN,2025 | | | | | | | |
| TECHNICAL DETAILS | | Black Magnetic Ink Manufacture:7HF | | | STAMP & SIGNATURE: | | CLIENT: | | | | | | |
| Digital Lux Meter WHITE LIGHT INTENSITY: | | 3580 Lux/S.NO:2722003 | | | Wet FLUORESCENT Particle Concentration 14 HF | | 0.1 to 0.4 ml/100 ml | Batch No:220605 | | | | | |
| Cal Due Date:14.AUG.2024 | | Black Magnetic Ink Concentration 7 HF | 1.2 to 2.4 ml/100 ml | EXPIRE DATE: | Jul-25 | | | | | | | | |
| Original - Client Files | | Copy - Area Office | | QC/FN/MPI/065 Rev.00 | | DATED 07 NOV 2021 | | | | | | | |

Data Collection Report

| Gauge Information | |
|-------------------|-------------------------|
| Serial Number | 218230280019 |
| Model | ADT680W-25-GP30K-PSI-AM |
| Message Store | TSS test area |
| Units | PSI |
| SCALE | 30000 PSI |

| Run Info | |
|------------|-----------|
| Start Time | 8:30 AM |
| Stop Time | 8:53 AM |
| Test Date | 13-May-24 |
| EQ NUMBER | 11483048 |
| LAST CALIB | 7-Mar-24 |

READING



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

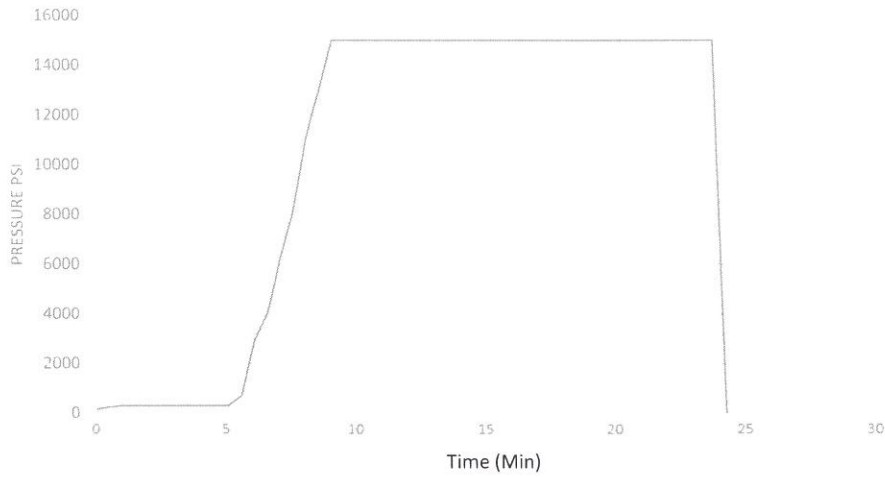


Data Collection Report

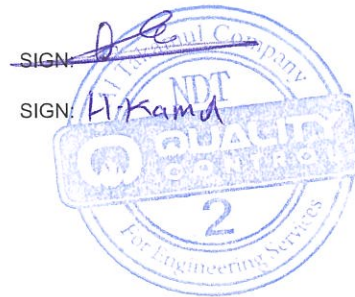
| Gauge Information | |
|-------------------|-------------------------|
| Serial Number | 218230280019 |
| Model | ADT680W-25-GP30K-PSI-AM |
| Message Store | TSS test area |
| Units | PSI |
| SCALE | 30000 PSI |

| Run Info | |
|------------|-----------|
| Start Time | 9:00 AM |
| Stop Time | 9:24 AM |
| Test Date | 13-May-24 |
| EQ NUMBER | 11483048 |
| LAST CALIB | 7-Mar-24 |

READING



TESTED BY : Feras Abbas
APPROVED BY: Hassan Kamel
COMMENTS: Upstream

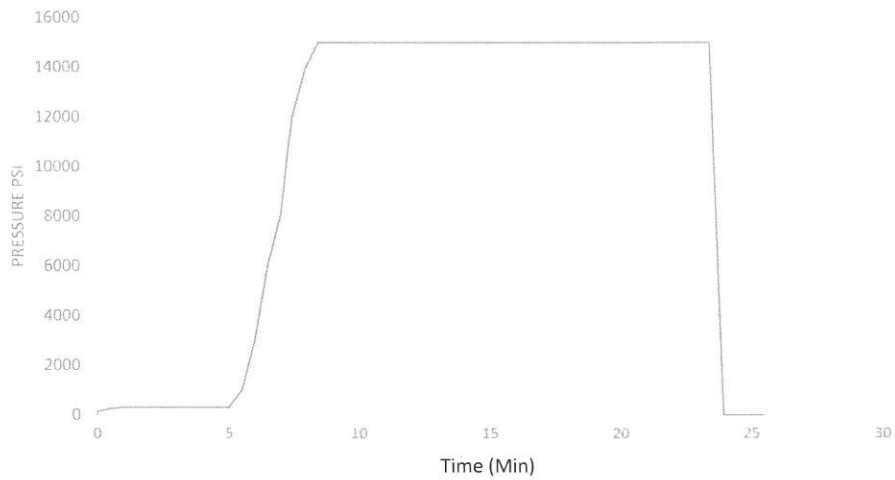


Data Collection Report

| Gauge Information | |
|-------------------|-------------------------|
| Serial Number | 218230280019 |
| Model | ADT680W-25-GP30K-PSI-AM |
| Message Store | TSS test area |
| Units | PSI |
| SCALE | 30000 PSI |

| Run Info | |
|------------|-----------|
| Start Time | 9:30 AM |
| Stop Time | 9:54 AM |
| Test Date | 13-May-24 |
| EQ NUMBER | 11483048 |
| LAST CALIB | 7-Mar-24 |

READING



TESTED BY : Feras Abbas
APPROVED BY: Hassan Kamel
COMMENTS: Downstream

