

# AI TAKAMUL COMPANY FOR ENGINEERING TESTS AND PROFESSIONAL SAFETY LIMITED

Basra, North Rumaila, Quality Control Yard - Iraq

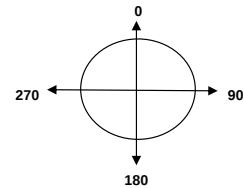
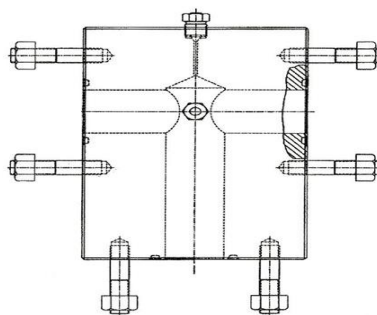
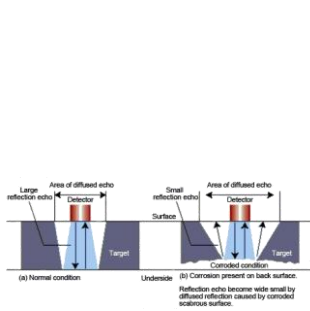


## MAJOR INSPECTION CERTIFICATE

THIS REPORT COMPLIES WITH RECOGNIZED INTERNATIONAL STANDARDS & TECHNICAL REQUIREMENTS

|                     |                                                                                                           |                 |                                                                       |
|---------------------|-----------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------|
| CLIENT:             | <b>HALLIBURTON</b>                                                                                        | REPORT No.:     | QC-24-01-TSS-014-NDT-MAJ-006                                          |
| LOCATION:           | <b>TSS WORKSHOP &amp; INSPECTION TEST AREA</b>                                                            | STANDARD:       | ASTM E709 & ASTM E797 & ASME SECTION V ARTICLE 5,10 & 27 & ASME B31.1 |
| WORK ORDER #        | 326102059                                                                                                 | SPECIFICATION:  | Halliburton Acceptance Criteria<br>H2S STANDARD NACE MQ-01-76         |
| DATE OF INSP:       | Wednesday, January 24, 2024                                                                               | INSP. DUE DATE: | <b>ANNUAL INSPECTION</b>                                              |
| TYPE OF INSPECTION: | <b>VISUAL INSPECTION, PRESSURE TEST AND MAGNETIC PARTICLE INSPECTION AND ULTRASONIC THICKNESS GAUGING</b> |                 |                                                                       |

|                           |                                   |                     |                                 |
|---------------------------|-----------------------------------|---------------------|---------------------------------|
| DESCRIPTION:              | <b>BLOCK 3 1/16" 10K</b>          | CHOKE MANIFOLD #    | <b>11574323</b>                 |
| MANUFACTURER:             | <b>WORLD WIDE OIL FIELD</b>       | SERIAL NO:          | <b>107055-1-5-1</b>             |
| <b>INSPECTION DETAILS</b> |                                   |                     |                                 |
| Max. Working Pressure:    | <b>10,000 PSI</b>                 | Holding Time:       | <b>19 Min</b>                   |
| Low pressure:             | <b>300 PSI</b>                    | Holding Time:       | <b>05 Min</b>                   |
| Pump S.N.:                | <b>13119220 Cal DUE. AUG.2024</b> | Pressure Gauge NO.: | <b>468066 Cal DUE. AUG.2024</b> |



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

\* ALL READINGS IN INCH  
\*\*MINIMUM THICKNESS PROVIDED BY CUSTMER



ONLINE TRACEABILITY

| POINTS | THICKNESS AT POSITION |       |       | MINIMUM THICKNESS |
|--------|-----------------------|-------|-------|-------------------|
|        | A                     | B     | C     |                   |
| 0°     | 4.556                 | 4.624 | 4.637 | 4.320             |
| 90°    | 4.563                 | 4.566 | 4.567 |                   |
| 180°   | 4.577                 | 4.600 | 4.657 |                   |
| 270°   | 4.595                 | 4.603 | 4.612 |                   |

|                          |          |                                                                                                       |  |
|--------------------------|----------|-------------------------------------------------------------------------------------------------------|--|
| <b>INSPECTION RESULT</b> |          |                                                                                                       |  |
| VT & MPI                 | Accepted | * ACCORDING TO ASTM E709(70.94158).                                                                   |  |
| UT                       | Accepted | According to Halliburton Procedure (H2S STANDERD NACE MQ-01-76) 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 The Halliburton Specification ASTM E709 (70.94158)

U.T-The Above Item Was Found Acceptable As Per Halliburton Procedure H2S STANDARD NACE MQ-01-76 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 10.000 psi Hold 19 min no Leak was Realized while testing & Pressure Was Stable Accordance To Chart Recorder Attached

| INSPECTION EQUIPMENT DETAILS     |           |              |           | TECHNICAL DETAILS               |                 |                      |             |
|----------------------------------|-----------|--------------|-----------|---------------------------------|-----------------|----------------------|-------------|
| AC YOKE S.N:                     | 201504048 | CAL DUE DATE | 14-Feb-24 | White Contrast<br>WCP-2         | MANUFACTUR<br>E | BATCH NO             | EXPIRE DATE |
| Digital Lux Meter<br>WHITE LIGHT | 2722003   | CAL DUE DATE | 16-Feb-24 |                                 | Magnaflux       | 220602               | JUN,2025    |
| UT THICKNESS GAUGE:              | 3997      | CAL DUE DATE | 16-Feb-24 | Black Magnetic<br>Ink 7HF       | MANUFACT<br>URE | BATCH NO             | EXPIRE DATE |
| UT TEST BLOCK:                   | NoBo5087  | CAL DUE DATE | 16-Feb-24 |                                 | Magnaflux       | 220605               | JULY.2025   |
| ASTM Test Block:                 | 1657      | CAL DUE DATE | 14-Feb-24 | Fluorescent Magnetic Ink<br>7HF |                 | 1.2 to 2.4 ml/100 ml |             |
| WHITE LIGHT INTENSITY:           | 3618 lux  |              |           |                                 |                 |                      |             |

|                       |                      |                        |                |         |  |  |  |
|-----------------------|----------------------|------------------------|----------------|---------|--|--|--|
| <b>PERSON DETAILS</b> |                      |                        |                |         |  |  |  |
| INSPECTOR NAME:       | M. Shahad Ahmed      | SENIOR INSPECTOR:      | NAVEED HUSSAIN | CLIENT: |  |  |  |
| QUALIFICATION:        | NDT Level 2, UT, VT, | INSPECTION SUPERVISOR: | HANI ALI       | HB&SIGN |  |  |  |
| SIGNATURE & STAMP:    |                      |                        |                | DATE:   |  |  |  |

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