

## Calibration Certificate

Al Takamul Yard North Rumailah, Iraq

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Date of Issue: June 14, 2024

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|                    |   |   |                |
|--------------------|---|---|----------------|
| REQUEST NUMBER     | : | : | By Email       |
| JOB NUMBER         | : | : | QC/JN/24/00240 |
| CERTIFICATE NUMBER | : | : | QC240614-01    |

APPROVED BY: LAB IN CHARGE QC



### CUSTOMER DETAILS

|            |   |                                                        |
|------------|---|--------------------------------------------------------|
| Name       | : | Black Gold Gulf Oil And Gas Services Co.Ltd Basra Iraq |
| Address    | : | North Rumaila Base south Iraq                          |
| Department | : | Coil Tubing                                            |

### EQUIPMENT IDENTIFICATION AND SPECIFICATIONS

|                                |   |                                                                                                    |
|--------------------------------|---|----------------------------------------------------------------------------------------------------|
| Description                    | : | Load Cell                                                                                          |
| Manufacturer                   | : | NA                                                                                                 |
| Model                          | : | NA                                                                                                 |
| Load Cell name on jam          | : | CC-15K-0730                                                                                        |
| Serial Number                  | : | M0011808042                                                                                        |
| MTT Controller S/N             | : | A20020136 / MTT-400-00                                                                             |
| Test Equipment S/N             | : | 2003015Zg                                                                                          |
| Maximum Rated Full-Scale Force | : | 15K lbs                                                                                            |
| Force Range                    | : | 0 K lbs to 15K lbs                                                                                 |
| As Found                       | : | In Tolerance                                                                                       |
| Location                       | : | QC Labs North Rumailah                                                                             |
| Calibrated By                  | : | Hussein Alaa                                                                                       |
| Calibration Date               | : | June 14, 2024                                                                                      |
| Calibration Due                | : | Recommended Validity : one ( 1 ) year from the date of calibration, (Where Required) June 13, 2025 |



### ENVIRONMENTAL CONDITIONS DURING TEST

|                     |   |        |   |       |
|---------------------|---|--------|---|-------|
| Ambient Temperature | : | 22 °C  | ± | 2 °C  |
| Relative Humidity   | : | 45 %RH | ± | 5 %RH |

### CALIBRATION METHOD

The above equipment has been calibrated in accordance with International Calibration Procedure # ASTM E74-13a

The deviations of the measurements obtained from UUC with respect to reference standards are determined to obtain the error.

### TRACEABILITY

The measurements made by Quality Control Labs, realize the physical units of measurements (SI), through its state of the art calibration standards that are controlled and maintained by QC.

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CERTIFICATE NUMBER

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## REFERENCE EQUIPMENT USED :

| DESCRIPTION | MAKE  | MODEL #      | SERIAL # | CALIBRATION DATE | CALIBRATION DUE DATE |
|-------------|-------|--------------|----------|------------------|----------------------|
| Load Cell   | ZEMIC | BM14A-C3-40T | TA906164 | November 2, 2023 | November 1, 2024     |

## CALIBRATION TEST RESULTS

## Measurement Data For Force

Zero or Offset Readings of UUC

|                      |                     |
|----------------------|---------------------|
| Before<br>Adjustment | After<br>Adjustment |
| K lbs                | K lbs               |
| 0                    | 0                   |

|                    |        |
|--------------------|--------|
| Sensitivity Factor | 3.00   |
| Correction Factor  | 1.0025 |

| Readings on UUC | Readings on JAM MTT | Error | Uncertainty (95 % C.L) |
|-----------------|---------------------|-------|------------------------|
| K lbs           | K lbs               | K lbs | ±K lbs                 |
| 0               | 0.00                | 0.00  | 0                      |
| 500             | 499.00              | 0.01  | 0.2                    |
| 1000            | 998.00              | 0.02  | 0.2                    |
| 2000            | 1994.00             | 0.06  | 0.2                    |
| 5000            | 4998.00             | 0.02  | 0.2                    |
| 7500            | 7499.00             | 0.01  | 0.2                    |
| 10000           | 9997.00             | 0.03  | 0.2                    |

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor  $k=2$ , providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with international practice.

## DEVIATION FROM STANDARD METHOD :

None

## REMARK (S) :

- ☒ The results are as found (no adjustment done).  
☐ The results are post adjustment.

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