

Certificate of Calibration

Al Takamul Yard, North Rumailah South Iraq

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Date of Issue:

June 17, 2025

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|--------------------------------------|---|
| REF NUMBER : By Contract | APPROVED BY CALIBRATION LAB INCHARGE QC |
| Job No # : QC-CAL-25237 | |
| CERTIFICATE NUMBER : QC-CAL-25237-01 | |


CUSTOMER DETAILS

Name | Halliburton Worldwide IRAQ (Sperry)-ZPEC025
 Address | Western Burjesia, Oil Street, District Zubair-South Iraq

EQUIPMENT IDENTIFICATION AND SPECIFICATIONS

Description | **Fixed Gas Detectors**
 Type | Digital
 Calibrated Range | 40 PPM H2S 50% LEL
 Calibrated By | Hussein Alaa
 Calibration Date | June 17, 2025
 Calibration Due | **September 16, 2025**



| Serial Number | Sensor Type | Manufacturer | Model |
|----------------------|-------------|--------------|--------------|
| K19-401702086-10-001 | H2S | MSA | Ultima XE |
| K19-401702086-10-003 | H2S | MSA | Ultima XE |
| K19-401702086-10-015 | H2S | MSA | Ultima XE |
| H21-402253476-10-001 | H2S | MSA | Ultima XE |
| H21-402253476-10-002 | H2S | MSA | Ultima XE |
| A17-400767645-10-013 | LEL | MSA | Ultima XE |
| J17-401011572-10-001 | LEL | MSA | Ultima XE |
| A20-401750165-10-008 | LEL | MSA | Ultima XE |
| A20-401750165-10-006 | LEL | MSA | Ultima XE |
| W351791-004 | LEL | CROWNCON | Xgard Bright |

ENVIRONMENTAL CONDITIONS DURING TEST

Ambient Temperature : 18 °C ± 2 °C
 Relative Humidity : 30 %RH ± 5 %RH

CALIBRATION METHOD

Reference cylinders consisting of gases LEL & H2S is used , which are detected by gas detector by diffusion.

TRACEABILITY

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

REFERENCE EQUIPMENT USED :

| DESCRIPTION | SERIAL NO. | Make | Valid Until |
|--------------------------------------|------------|-----------|-------------|
| Calibration Gas Cylinder (40PPM H2S) | 555894 | Gulf Cryo | 25-Jun-2026 |
| Calibration Gas Cylinder (50% LEL) | 140188 | Bristol | 18-Oct-2026 |

CALIBRATION TEST RESULTS

| Applied Gas | Values of UUC | Values on Reference Standard | Error in Reading of UUC | Uncertainty of Measurement |
|---------------|---------------|------------------------------|-------------------------|----------------------------|
| H2S PPM | 40.0 | 40 | 0.0 | ± 1 |
| H2S PPM | 40.1 | 40 | 0.1 | ± 1 |
| H2S PPM | 40.1 | 40 | 0.1 | ± 1 |
| H2S PPM | 40.0 | 40 | 0.0 | ± 1 |
| H2S PPM | 39.9 | 40 | -0.1 | ± 1 |
| Methane(LEL)% | 49.9 | 50 | -0.1 | ± 1 |
| Methane(LEL)% | 50.0 | 50 | 0.0 | ± 1 |
| Methane(LEL)% | 51.0 | 50 | 1.0 | ± 1 |
| Methane(LEL)% | 50.0 | 50 | 0.0 | ± 1 |
| Methane(LEL)% | 50.0 | 50 | 0.0 | ± 1 |

Calibration results were found to conform as per specified accuracy requirements. Above Instrument has **PASSED** its Calibration.