**Fecha de Calibración:** 20/5/2026

**Fecha de Emisión:** 20/5/2026

**SILIQUINI S.R.L.**
**Pacheco 373**

**(54-0299) 477-4400**
**ventas@siliquini.com**

**CERTIFICADO DE CALIBRACION N°: 261543**

| | | | |
|---|---|---|---|
| **Cliente:** | GREEN OIL SERVICES SA | **Equipo en uso:** | REPARADO Y CALIBRADO |
| **Instrumento:** | Altair 4X<br>Grupo: 8 - (Portable Instrument) | **Equipo nuevo:** | NO |
| **S/N:** | E1-00181609-J12 | **Fabricante:** | Mine Safety Appliances Company |

| Gas Patrón | Objetivo a Verificar | Incert. del Gas | Número de Lote | Validez Gas | Mediciones | | | Error de medición | Incert. de la Medición | Rango |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | | | |
| Acido Sulfhidrico (H2S) 20 ppm | 20 ppm | 10% | 299654 | 31/8/2026 | 20 | 20 | 20 | 0,000 | 3 ppm | 0-200ppm |
| | | | | | VM:20,000 | | | | | |
| Metano (CH4) 1,45 % | 58 % | 5% | 299654 | 31/8/2026 | 58 | 58 | 58 | 0,000 | 4 % | 0-100% |
| | | | | | VM:58,000 | | | | | |
| Monóxido de Carbono (CO) 60 ppm | 60 ppm | 5% | 299654 | 31/8/2026 | 60 | 60 | 60 | 0,000 | 4 ppm | 0-2000ppm |
| | | | | | VM:60,000 | | | | | |
| Oxígeno (O2) 15 % | 15 % | 5% | 299654 | 31/8/2026 | 15 | 15 | 15 | 0,000 | 0,9 % | 0-30% |
| | | | | | VM:15,000 | | | | | |
| | | | | | | | | | | |

MSA The Safety Company

## ALARMAS

| | Deficiency Alarm | Exposure Alarm | STEL Alar | TWA Alarm |
|---|---|---|---|---|
| H2S ppm | 10 ppm | 15 ppm | 15 ppm | 10 ppm |
| COMB | 10 % | 20 % | - | - |
| CO | 25 ppm | 100 ppm | 100 ppm | 25 ppm |
| O2 | 19.5 % | 23.0 % | - | - |

***Calibración:*** **Contraste con gas patrón trazable a patrones de peso NIST**

***Condiciones ambientales de Calibración:*** **Cipolletti - R¡o Negro**

**Temperatura (ºC)** **18ºC**
**Presión atmosférica (hPa):** **1030 hPa**
**Humedad (%):** **40 %**

***Procedimientos de Calibración:*** **De acuerdo al manual de cada equipo**

**(*) Las especificaciones de tolerancia de medición se encuentran informadas en el manual del equipo.**

"La calibración de los equipos, instrumentos y dispositivos utilizados, los métodos de análisis aplicados, y las acciones u omisiones son realizadas en forma exclusiva por personal de SILIQUINI S.R.L. sin intervención de COMPAÑÍA MSA DE ARGENTINA S.A. quien no responderá por los mismos."

***Límites en el uso:*** **Indicados en el manual del equipo**
**Los resultados son válidos solamente para el equipo ensayado no siendo extensivos a cualquier otro.**
**La trazabilidad de los detectores MSA se realiza a través del número de serie**

**La reproducción de este documento sólo podrá hacerse íntegramente sin ninguna alteración.**

**Hugo Puente**
**SERVICIO TÉCNICO**
**SILIQUINI S.R.L.**

**Cantidad de hojas: 1**

# CERTIFICATE OF ANALYSIS

PortaGas™
A Linde company

ISO 9001:2015 CERTIFIED
ISO 17034:2016 ACCREDITED
ISO/IEC 17025:2017 ACCREDITED

1202 E Sam Houston Parkway S,
Pasadena, TX 77503
Phone:(800) 548 2268 Fax:(713) 928 9961

**PO Number:** 4503619803
**Manufactured For:**
MSA Safety Sales, LLC
1000 Cranberry Woods Drive
Cranberry Township PA 16066
United States Of America

**Work Order No:** 41541300
**Certification Date:** 13-Aug-2024

**Customer Part No:** 10045035
**Cylinder Size:** 58mGAL
**Cylinder Type:** ISO 7866
**Cylinder Content:** 58 L (2 CU.FT.) @ 70 F (21 C) & 500 PSIG (3445Kpag)
**Cylinder Lot No:** 299654; 299 of 503 cylinders
**Cylinder Serial Nos:** BC646261,BC646262,BC646265,BC646266,BC646267,BC646268,BC646312,BC646846,BC646847,BC646848,BC646849,BC646854,BC646892,BC647160,BC647164,BC647278,BC647327,BC647359,BC647360,BC647361,BC647362,BC647363,BC647486,BC647493,BC647526,BC647580,BC647590,BC647607,BC647608,BC647610,BC647611,BC647612,BC647614,BC647616,BC647617,BC647618,BC647619,BC669578,BC669611,BC669612,BC669614,BC669740,BC669743,BC669748,BC669813,BC670433,BC670436,BC670460,BC670462,BC670463,BC670465,BC670467,BC670468,BC670469,BC670473,BC670587,BC670599,BC670600,BC670606,BC670607,BC670608,BC670611,BC670612,BC670628,BC670637,BC670642,BC670647,BC670734,BC676070,BC676178,BC676218,BC676220,BC676266,BC676267,BC676268,BC676270,BC676271,BC676272,BC676273,BC676291,BC676292,BC676293,BC676297,BC676300,BC676301,BC676305,BC676306,BC676307,BC676308,BC676309,BC676311,BC676314,BC676315,BC676316,BC676317,BC676319,BC676320,BC676403,BC676470,BC676473,BC676474,BC676476,BC676477,BC676478,BC676479,BC676480,BC676481,BC676482,BC676484,BC676488,BC676505,BC676509,BC676510,BC676514,BC676516,BC676533,BC676536,BC676537,BC676539,BC676541,BC676542,BC676543,BC676544,BC676545,BC676547,BC676551,BC676552,BC676561,BC676562,BC676642,BC676643,BC676646,BC676647,BC676649,BC676650,BC676651,BC676652,BC676653,BC676654,BC676658,BC676661,BC676662,BC676737,BC676739,BC676747,BC676751,BC676753,BC676754,BC676755,BC676756,BC676757,BC676758,BC676765,BC676766,BC676767,BC676768,BC676770,BC676771,BC676772,BC676774,BC676775,BC676778,BC676780,BC676781,BC676784,BC676785,BC676787,BC676788,BC676790,BC676792,BC676793,BC676794,BC676798,BC676801,BC676819,BC676820,BC676867,BC676868,BC676869,BC676870,BC676872,BC676873,BC676875,BC676876,BC676877,BC676878,BC676884,BC676945,BC676956,BC676958,BC676959,BC676968,BC676970,BC676971,BC676972,BC676973,BC676974,BC676975,BC676976,BC676977,BC676978,BC676980,BC676981,BC676984,BC676985,BC676986,BC676987,BC676989,BC676990,BC676993,BC676995,BC677045,BC677046,BC677047,BC677050,BC677051,BC677052,BC677053,BC677054,BC677057,BC677058,BC677076,BC677079,BC677080,BC677082,BC677083,BC677088,BC677089,BC677097,BC677098,BC677100,BC677101,BC677102,BC677103,BC677104,BC677105,BC677106,BC677109,BC677110,BC677111,BC677112,BC677115,BC677118,BC677119,BC677120,BC677123,BC677157,BC677158,BC677159,BC677160,BC677161,BC677162,BC677164,BC677165,BC677166,BC677168,BC677169,BC677170,BC677171,BC677180,BC677182,BC677183,BC677185,BC677186,BC677191,BC677192,BC677193,BC677194,BC677195,BC677196,BC677197,BC677198,BC677231,BC677232,BC677266,BC677271,BC677366,BC677368,BC677369,BC677370,BC677372,BC677373,BC677374,BC677375,BC677376,BC677377,BC677379,BC677380,BC677385,BC677390,BC677466,BC677493,BC677508,BC677511,BC677513,BC677628,BC677631,BC677632,BC677635
**Expiration Date:** Aug 2026

| Component | Nominal | Accuracy | Analytical Method |
|---|---|---|---|
| HYDROGEN SULFIDE | 20 PPM (vol) | +/- 10% | Automated Electrochemical Sensor 2.0 |
| CARBON MONOXIDE | 60 PPM (vol) | +/- 5% | Horiba CO2_CO Analyzer VIA-510_97KP6EHE |

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A Linde company

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ISO 17034:2016 ACCREDITED
ISO/IEC 17025:2017 ACCREDITED

1202 E Sam Houston Parkway S,
Pasadena, TX 77503
Phone:(800) 548 2268 Fax:(713) 928 9961

| | | | |
|---|---|---|---|
| PENTANE EQUIVALENT 58% LEL | (METHANE 1.45% vol) | +/- 5% | Mocon 9000 THC_0317DN0931 |
| OXYGEN | 15%(vol) | +/- 5% | Teledyne 3000M Series Percent Oxygen Analyzer |
| NITROGEN | BALANCE | | |

The mixture was manufactured or transfilled from a standard which has been gravimetrically blended with traceability through NIST to the International System of Units (SI) balance. Balances are calibrated by a certified third party with certified NIST weights and NIST test numbers.**Report Number: BU70910-10172024.**The uncertainty is expressed as an expanded uncertainty *U=kuc* with *uc* determined by experiment and a coverage factor *k*=2. The certified value +/-U is presented with a level of confidence of approximately 95%.

**Quality Assurance Manager**