



Fecha de Calibración: 15/9/2021
Fecha de Emisión: 15/9/2021

Comercial Argentina S.R.L.
Teodoro L. Planas 855

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CERTIFICADO DE CALIBRACION N°: 171847

Cliente: QUINPE S.R.L.	Equipo en uso: REPARADO Y CALIBRADO
Instrumento: Altair 4x BT Grupo: 8 - (Portable Instrument)	Equipo nuevo: NO
S/N: E0-00035098-G18	Fabricante: Mine Safety Appliances Company

Gas Patrón	Objetivo a Verificar	Incert. del Gas	Número de Lote	Mediciones			Incert. de la Medición	Rango	SN sensor
				1	2	3			
Acido Sulfhidrico (H2S) 20 ppm	20 ppm	10	BC319180	20	20	20	2,0817 ppm	0 - 200 ppm	
Metano (CH4) 1,45 %	58 % LEL	5	BC319180	58	58	58	2,9569 % LEL	0 - 100 %	
Monóxido de Carbono (CO) 60 ppm	60 ppm	5	BC319180	60	60	60	3,0551 ppm	0 - 2000 ppm	
Oxígeno (O2) 15 %	15 %	5	BC319180	15	15	15	0,9465 %	0 - 30 %	

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

Condiciones ambientales de Calibración: Neuquen

Temperatura (°C) 22°C
Presión atmosférica (hPa): 1021 hPa
Humedad (%): 23 %

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 Comercial Argentina S.R.L. sin intervención de COMPAÑIA 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.

Federico Carnevale
SERVICIO TÉCNICO
Comercial Argentina S.R.L.

Cantidad de hojas: 1



CERTIFICATE OF ANALYSIS

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: 4502868485

Manufactured For:

MSA Safety Sales, LLC
1000 Cranberry Woods Drive
Cranberry Township PA 16066
United States Of America

Work Order No: 35165300

Certification Date: 24-Apr-2021

Customer Part No: 10045035

Cylinder Size: 58DALS

Cylinder Type: ISO 7866

Cylinder Content: 58 L (2 CU.FT.) @ 70 F (21 C) & 500 PSIG (3445Kpag)

Cylinder Lot No: 249899; 350 of 500 cylinders

Cylinder Serial Nos: BC306044, BC306113, BC306453, BC306946, BC307022, BC308387, BC308428, BC308601, BC308669, BC309975, BC309986, BC310013, BC310048, BC310069, BC310092, BC312323, BC312348, BC312353, BC313387, BC313664, BC314034, BC314229, BC314231, BC314321, BC314400, BC314076, BC314721, BC314724, BC314776, BC314802, BC314844, BC314846, BC314891, BC314968, BC314983, BC315069, BC315085, BC315091, BC315099, BC315201, BC315438, BC315595, BC315599, BC315623, BC316035, BC316043, BC316060, BC316062, BC316090, BC316110, BC316123, BC316124, BC316131, BC316140, BC316187, BC316196, BC316200, BC316206, BC316209, BC316219, BC316244, BC316253, BC316257, BC316272, BC316288, BC316298, BC316299, BC316303, BC316305, BC316307, BC316316, BC316326, BC316335, BC316353, BC316384, BC316410, BC316415, BC316645, BC316678, BC317426, BC317480, BC317523, BC317857, BC317870, BC317907, BC317922, BC317924, BC317949, BC318443, BC318452, BC318454, BC318456, BC318461, BC318467, BC318488, BC318490, BC318492, BC318493, BC318494, BC318496, BC318497, BC318498, BC318499, BC318500, BC318501, BC318503, BC318506, BC318508, BC318511, BC318513, BC318515, BC318521, BC318525, BC318526, BC318528, BC318530, BC318532, BC318535, BC318539, BC318541, BC318544, BC318545, BC318546, BC318548, BC318549, BC318552, BC318556, BC318557, BC318558, BC318559, BC318560, BC318561, BC318562, BC318564, BC318565, BC318566, BC318568, BC318570, BC318575, BC318576, BC318580, BC318582, BC318583, BC318584, BC318585, BC318586, BC318587, BC318591, BC318592, BC318594, BC318595, BC318599, BC318601, BC318602, BC318603, BC318605, BC318609, BC318610, BC318611, BC318615, BC318616, BC318617, BC318618, BC318619, BC318620, BC318623, BC318626, BC318627, BC318628, BC318632, BC318633, BC318636, BC318637, BC318638, BC318641, BC319043, BC319044, BC319054, BC319059, BC319079, BC319082, BC319086, BC319087, BC319089, BC319090, BC319093, BC319097, BC319098, BC319099, BC319101, BC319102, BC319103, BC319105, BC319106, BC319108, BC319113, BC319116, BC319120, BC319121, BC319122, BC319127, BC319128, BC319130, BC319131, BC319134, BC319135, BC319136, BC319140, BC319141, BC319144, BC319148, BC319150, BC319151, BC319153, BC319154, BC319155, BC319156, BC319158, BC319159, BC319160, BC319162, BC319164, BC

Expiration Date: Apr 2023

Component	Nominal	Accuracy	Analytical Method
HYDROGEN SULFIDE	20 PPM (vol)	+/- 10%	Automated Electrochemical Sensor
CARBON MONOXIDE	60 PPM (vol)	+/- 5%	Horiba CO Analyzer VIA-510_97KP6EHE
PENTANE EQUIVALENT 58% LEL	(METHANE 1.45% vol)	+/- 5%	Mocor 9000 THC_0317DN0931
OXYGEN	15%(vol)	+/- 5%	Teledyne 3000M Series Percent Oxygen Analyzer
NITROGEN	BALANCE		