EQUIPMENT SYMBOLS
SIMBOLOS DE EQUIPOS

SYMBOLS *SIMBOLOS*	DESCRIPTION *DESCRIPCION*
M	ELECTRIC MOTOR *MOTOR ELECTRICO*
D	DIESEL MOTOR *MOTOR DIESEL*
HM	HYDRAULIC MOTOR *MOTOR HIDRAULICO*
AS	ADJUSTABLE SPEED DRIVE *VARIADOR DE VELOCIDAD*
AF	ADJUSTABLE FREQUENCY DRIVE *VARIADOR DE FRECUENCIA*
HU	MOBILE HYDRAULIC UNIT *UNIDAD HIDRAULICA MOVIL*
HU	HYDRAULIC UNIT *UNIDAD HIDRAULICA*
	REDUCER/GEAR BOX *REDUCTOR DE VELOCIDAD*
IA / H	AIR (IA) OR HYDRAULIC (H) CYLINDER *CILINDRO NEUMATICO (IA) O HIDRAULICO (H)*
	SHUT OFF GATE *COMPUERTA DE CIERRE*
	SPILE BAR PACK *PAQUETE DE BARRAS DE BLOQUEO*
	ELECTRICAL BAYONET HEATER *CALEFACTOR ELECTRICO DE BAYONETA*
	TRUCK OR RAILCAR SCALE *ROMANA PARA CAMION O CARRO DE TREN*
	COARSE SEPARATOR BOX *CAJÓN SEPARADOR DE GRUESOS*
	DUST SUPRESSION SYSTEM *SISTEMA SUPRESION DE POLVO*
LUBE SYSTEM	LUBRICATION SYSTEM *SISTEMA DE LUBRICACION*
	FLOW DIVIDER *DIVISOR DE FLUJO*

SYMBOLS *SIMBOLOS*	DESCRIPTION *DESCRIPCION*
	SFR FLOTATION CELLS *CELDAS DE FLOTACION SFR*
	MECHANICAL SAMPLER W/RADIAL CUTTER *MUESTREADOR MECANICO C/ CORTADOR RADIAL*
	MECHANICAL SAMPLER W/LINEAR CUTTER *MUESTREADOR MECANICO C/ CORTADOR LINEAL*
	METALLURGICAL SAMPLER *MUESTREADOR METALURGICO*
	IN-STREAM PROBE ANALYZER *ANALIZADOR EN LINEA*
SAMPLER	IN-LINE SAMPLER *ANALIZADOR EN LINEA*
	PRESSURE PIPE SAMPLER *MUESTREADOR A PRESION*
	MULTIPLEXER *MULTIPLEXOR*
PSA	PARTICLE SIZE ANALYZER *ANALIZADOR DE PARTICULAS*
ANALYZER	METALLURGICAL ANALYZER *ANALIZADOR METALURGICO*
	MOTORIZED DOOR (VERTICAL LIFT) *PORTON MOTORIZADO (LEVANTE VERTICAL)*
	DRUM *TAMBOR*
	EDUCTOR *EDUCTOR*
	HUMIDIFIER *HUMIDIFICADOR*
	FEED CHUTE / BOX *CAJON / CHUTE ALIMENTADOR*
	SAMPLE CONTAINER *CONTENEDOR DE MUESTRA*
	BDU / FRU REACTOR *REACTOR BDU / FRU*
	FLOTATION CELLS FEED BOX *CAJON ALIMENTACION CELDAS DE FLOTACION*

SYMBOLS *SIMBOLOS*	DESCRIPTION *DESCRIPCION*
	MOLY DISCHARGE LAUNDER *CANALETA DE DESCARGA MOLY*
	OPEN LAUNDER *CANALETA ABIERTA*
	CLOSED LAUNDER *CANALETA CERRADA*
	2 WAYS CLOSED LAUNDER *CANALETA DE 2 VÍAS CERRADA*
	POND *PISCINA*
	1 WAY DISSIPATION BOX *CAJÓN DISIPADOR DE 1 VÍA*
	2 WAYS DISSIPATION BOX *CAJÓN DISIPADOR DE 2 VÍAS*
	WATER POND AND DISTRIBUTOR *DISTRIBUIDOR Y PISCINA DE AGUA*
	UP FLOW DISTRIBUTOR *DISTRIBUIDOR FLUJO ASCENDENTE*
	FLOW DISTRIBUTOR *DISTRIBUIDOR FLUJO*
	UNDER FLOW FEED BOX *CAJA ALIMENTACION FLUJO DECENDENTE*
	TURN BOX OR DROP BOX *CAJA DIRECCIONAL*
	ENERGY DISSIPATION BOX *CAJÓN DISIPADOR DE ENERGÍA*
	FLOOR SUMP *SUMIDERO DE PISO*
	SUMP CONCRETE *SUMIDERO DE HORMIGÓN*
	SUMP CONCRETE *SUMIDERO DE HORMIGÓN*
M	HIGH CAPACITY THICKENER *ESPESADOR DE ALTA CAPACIDAD*
	SUMP *SUMIDERO*
	MAXI BAGS *MAXI BOLSA*
	BAG *BOLSA*
	GAS CYLINDER

SYMBOLS *SIMBOLOS*	DESCRIPTION *DESCRIPCION*
	BRIDGE CRANE *PUENTE GRUA*
	TOWER CRANE *TORRE GRUA*
	TROLLEY & HOIST (MANUAL OR ELECTRIC) (UNDERHUNG CRANE) *CARRO Y TECLE (MANUAL O ELECTRICO) (GRUA SUSPENDIDA)*
	JIB CRANE *GRUA PESCANTE*
	GANTRY CRANE *GRUA PORTICO*
	PNEUMATIC NUT REMOVER *HERRAMIENTA NEUMATICA PARA REMOVER TUERCAS*
	HYDRAULIC HAMMER W/ SUPPORT *MARTILLO HIDRAULICO C/ SOPORTE*
	LIQUID-LIQUID HEAT EXCHANGER *INTERCAMBIADOR DE CALOR LÍQUIDO-LÍQUIDO*
	LIQUID-AIR HEAT EXCHANGER *INTERCAMBIADOR DE CALOR LÍQUIDO-AIRE*
	HYDRAULIC BRAKE *FRENO HIDRAULICO*
	FRONT END LOADER *CARGADOR FRONTAL*
	TRUCK *CAMION*
	TRUCK *CAMION*
	TANKER TRUCK *CAMIÓN TANQUE*
	FORKLIFT *GRUA HORQUILLA*
	RAILCAR *VAGON*
	HOIST (MANUAL OR ELECTRIC)

SYMBOLS *SIMBOLOS*	DESCRIPTION *DESCRIPCION*
	VENT SILENCER *SILENCIADOR DE VENTEO*
	AIR RECEIVER *ACUMULADOR DE AIRE*
	HYDRAULIC ACCUMULATOR *ACUMULADOR HIDRAULICO*
	SEWAGE SEPTIC TANK *ESTANQUE SEPTICO*
M	AXIAL FAN *VENTILADOR AXIAL*
	AIR COMPRESSOR W/INLET AIR FILTER AND SILENCER *COMPRESOR DE AIRE C/ FILTRO Y SILENCIADOR*
	CENTRIFUGAL COMPRESSOR *COMPRESOR CENTRIFUGO*
	AIR DRYER *SECADOR DE AIRE*
	DUST COLLECTOR *COLECTOR DE POLVOS*
	BIN VENT *COLECTOR DE POLVO PARA TOLVAS*
	SCRUBBER *LAVADOR DE GASES*
	MOLYBDENUM DRYER *SECADOR DE MOLIBDENO*
	DISC FILTER *FILTRO DE DISCO*
	FILTER PRESS *FILTRO DE PRENSA*
	AIR COMPRESSOR WITH AIR FILTER *COMPRESOR DE AIRE CON FILTRO*

☐ SPANISH LANGUAGE GOVERNS
☒ ENGLISH LANGUAGE GOVERNS

Rev. No.	DATE	REVISIONS	DIS.	REV.	D.L.	BHP	REFERENCE DOCUMENTS	BHP N°	NOTE
2	03-may-19	ISSUED APPROVED FOR CONSTRUCTION	FC	GB	JB				
1	20-dec-18	ISSUED APPROVED FOR CONSTRUCTION	SKC	RM	SA/JB				
0	17-jan-18	ISSUED APPROVED FOR DESIGN	FC	HA	JB				
0A	21-sep-17	ISSUED FOR COMPANY APPROVAL	FC	HA	JB				
A	25-jul-17	ISSUED FOR INTERNAL REVIEW	FC	HA	JB				

BHP — PARA REVISION / FOR REVIEW

- ☐ Revisado / Reviewed
- ☐ Revisado con Comentarios / Reviewed with comments
- ☐ Rechazado y volver a emitir / Rejected, reissue
- ☒ Solo Información / Information Only

Fecha / Date 17-05-2019 — Firma / Signature Marcial Mendoza

Fluor-Salfa

BHP — MINERA SPENCE S.A.

ENGINEERING	SCALE	DATE			DATE
	DESIGNED BY:		DRAWN BY:	SYAM	11-12-18
	REVISED BY:	R. MONDAL 11-12-18	DISCIPLINE LEADER:	ADAPA/BARRERA	11-12-18
	ENGINEERING MGR:	JOSHI/LEGGETT 11-12-18	PROJECT MGR:	A. KING	11-12-18
BHP	ENGINEERING MGR:		PROJECT MGR:		

VENDOR DRAWING N°: 4-V2-2000-PR-PID-000002

SGO PROJECT

MINERAL PROCESS FACILITIES

MECHANICAL EQUIPMENT SYMBOLOGY P&ID- 2/2

CONTRACT N°: 8500135645 — BHP DRWG N°: 4-V2-2000-PR-PID-000002 — REV. 2

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