

GLOSSARY

Acronym	Explanation
1	
%	Percent
°	Degrees
“	Inch(es)
µg/m ³	Micrograms per cubic metre
µm	Microns
µPa	Micro Pascals
3D	Three dimensional
A	
A\$	Australian dollars
AADT	Annual Average Daily Traffic
AARD	Aboriginal Affairs and Reconciliation
ABL	Assessment Background Level. The 10th percentile of the LA90 noise levels recorded over the measurement period.
ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum Assessment and Reporting Authority
ACECQA	Australian Children’s Education and Care Quality Authority
Acid sulfate soils (ASS)	Naturally occurring soils, sediments or organic substrates that contain iron sulphide minerals or their oxidation products. In an undisturbed state below the water table, these soils are benign and not acidic. If the soils are drained, excavated or exposed to air by lowering of the water table, however the sulphides can react with oxygen to form sulphuric acid.
ACM	Acid Consuming Material
ADWG	Australian Drinking Water Guidelines
AEP	Annual exceedance probability; the probability that a given rainfall total accumulated over a given duration, or a given peak creek flow rate will be exceeded in one year.
AGT	Australian Groundwater Technologies
AHA	South Australian <i>Aboriginal Heritage Act 1988</i>
AHC	Adelaide Hills Council
AHD	Australian Height Datum
Al ₂ O ₃	Alumina
ALARP	As Low as Reasonably Practicable
AMD	Acid and metalliferous drainage
AMLR	Adelaide and Mount Lofty Ranges
ANC	Acid Neutralising Capacity
ANCOLD	Australian National Committee on Large Dams
ANFO	ANFO units mix ammonium nitrate prills and a combustible liquid, usually diesel oil, to form an explosive. Extra ingredients such as aluminium powder and polystyrene beads may also be added. The mixing process is typically a

	mixing auger. The delivery system is usually an auger, a slide or a pneumatic blow loading arrangement.
ANZECC	Australian and New Zealand Environment Conservation Council
APF	Angas Processing Facility
ARD	Acid Rock Drainage
ARI	Average Recurrence Interval
ARTC	Australian Rail Track Corporation
AS	Australian Standard
AS/NZS	Australian Standard/New Zealand Standard
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
ASS	Acid sulphate soil
ASX	Australian Securities Exchange
Au	Gold
A-Weighting	The “A” weighting scale is designed to adjust the absolute sound pressure levels to correspond to the subjective response of the human ear.
AZM	Angas Zinc Mine
B	
BACI	Before Control, After Impact
BAR	Basic Right Turn (treatment)
BDBSA	Biological Database of South Australia - historic flora and fauna records provided to the SA Government (DEWNR) and include data from the South Australian Herbarium, Birds Australia and South Australian Museum.
BGL	below ground level
BH	Bore Hole
BIH	Bird-in-Hand Gold Project
BLD	Boo Loo/Dolphin
BMP	Backfill Management Plant
BMR	Australian Bureau of Mineral Resources
BOM	Bureau of Meteorology
BushRAT	Bushland Rapid Assessment Technique derived from Bushland Condition Monitoring Methodology (Croft et al 2005-2009, Milne TI and McCallum B 2012, Milne TI and Croft T 2012). BushRat Manual produced by DEWNR Native Vegetation and Biodiversity Management Unit 2013.
C	
C	Celsius
CAF	Cemented Aggregate Fill
Cat no	Catalogue number
CBD	Central Business District
CCC	Community consultative committee

CCTV	Closed Circuit Television
Cd	Cadmium
CDP	Conveyor Distribution Point
CEMP	Construction Environmental Management Plan
CEP	Community Engagement Plan
Cfm	Cubic feet per metre
CFS	Country Fire Service
CGE	Computable General Equilibrium modelling
CIL/CIP	Carbon-in-Leach/Carbon-In-Pulp
CMB	Chloride Mass Balance
CMS	Cleaner Magnetic Separator
CO	Carbon Monoxide
COB	Coarse ore bin
CONC.	Concentrate
COOE	COOE Pty Ltd
CP	Conservation Park
CPT	Cost per tonne
CRC	Cooperative Research Centre
CRDT	Constant Rate Discharge Test
CRF	Cemented Rock Fill
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CT	Certificate of Title
Cu	Copper
CV	Conveyor
D	
dB	Decibels
dB(A)	A-Weighted sound pressure level measured in decibels.
DC	District Council
DCA	District Council of Alexandrina
DCMB	District Council of Mount Barker
DCF	Discounted cash flow
DDG	Dust Deposition Gauges
DEC	New South Wales Department of Environment and Conservation
DEF	Declaration of Environmental Factors
DEH	Department for Environment and Heritage (now part of DEWNR)
DEM	Department of Energy and Minerals (formerly Department for Premier and Cabinet (DPC))

Deposited Dust	Total particulate matter deposited to the ground surface, usually reported in units of g/m ² /month. The relevant measurement is insoluble solids as defined by Australian Standard, AS/NZS 3580.10.1–2003. Note DEC (2005) cites an earlier (1991) version of the standard.
DEWNR	Department of Water, Environment and Natural Resources
DFS	Definitive Feasibility Study
DIDO	Drive in, drive out
DIDO	drive-in drive-out
DMITRE	Department for Manufacturing, Innovation, Trade, Resources and Energy (SA) (now DEM)
DotE	Department of the Environment (Commonwealth)
DPC	Department of the Premier and Cabinet (now DEM)
DPTI	Department of Planning, Transport & Infrastructure (SA)
DSD	Department of State Development (SA)
DSD – AAR	Department of State Development – Aboriginal Affairs and Reconciliation (SA)
DSI	Detailed Site Investigation
DTM	Digital Terrain Modelling
Dust	In this report the generic term ‘dust’ is used for airborne or deposited dust particles of any size.
E	
EBITDA	Earnings before interest, tax, depreciation and amortisation
EETM	Emission Estimation Technique Manual
e.g.	for example
EGI	Environmental Geochemistry International Pty Ltd
EGL	Effective Grinding Length
EIA	Economic Impact Assessment
EIL	Ecological investigation level
EIn	Extraction Industry
EIS	Environmental Impact Statement
EL	Exploration Lease
EM	Electromagnetic
EML	Extractive minerals lease
EMLR	Eastern Mount Lofty Ranges
EMP	Environment Management Plan

Environment	Section 6(4) of the Mining Act states that the environment includes— (a) land, air, water (including both surface and underground water and sea water), organisms, ecosystems, native fauna and other features or elements of the natural environment; and (b) buildings, structures and other forms of infrastructure, and cultural artefacts; and (c) existing or permissible land use; and (d) public health, safety or amenity; and (e) the geological heritage values of an area; and (f) the aesthetic or cultural values of an area.
EP Act	Environment Protection Act 1993
EPA	Environment Protection Authority
EPBC	Environment Protection and Biodiversity Conservation Act 1999
EPBC Act	Environment Protection and Biodiversity Conservation (EPBC) Act– refer legislation section
EPCM	Engineering, procurement and construction management
Ephemeral	Transitory, existing only briefly
EPNRMB / EPNRM Board	Eyre Peninsula Natural Resources Management Board
EPP	Environment Protection Policy
et al	and others
Evapotranspiration	The part of the water cycle which removes liquid water from an area with vegetation and into the atmosphere by the processes of both transpiration and evaporation
EWA	Exploration Work Approval
F	
FABEL	Food and Beverage Australia Limited
Fe	Iron
FIFO	Fly-in/Fly-out
FOS	Factor of Safety
FRA	Fractured Rock Aquifer
ft	Feet
FTE	Full-time Equivalent
FW	Foot Wall
G	
g	Gravitational acceleration
g/m ² /month	Grams per square metre per month
g/sec	Grams per second
g/t	Grams per tonne
GARD	Global Acid Rock Drainage
GAV	General Access Vehicle
GDE	Groundwater Dependent Ecosystem

GDP	Gross Domestic Product
GHG	Green House Gas
GILs	Groundwater Investigation Levels
GNP	Gross National Product
GOS	Gross Operating Surplus
GP	General Practitioner
GPA	GPA Consulting
GPS	Global Positioning System
GPT	Gross Pollutant Traps
GSP	Gross State Product
GWA	Genesee & Wyoming Australia Propriety Limited
H	
H	Height
Ha	hectares
HDPE	High-density Polyethylene
HEC-RAS	Hydrologic Engineering Centre – River Analysis System
HILs	Health-based investigation levels
HILC	
HILD	
hr	hour
HR	Human Resources
H:V	Horizontal:Vertical
HV/LV	High Voltage/Low Voltage
HVAS	High Volume Air Sampler
HVDT	Heavy Vehicle Daily Traffic
HW	Hanging Wall
HQ	96mm External diameter drill bit size
I	
i.e.	in other words, that is
IEX	Ion Exchange system
IB	Investigation Bore
IBC	Intermediate Bulk Container
IBRA	Interim Bioregionalisation of Australia
ICN	Industry Capability Network
ICSEA	Index of Community Socio-educational Advantage
IEC	International Electrotechnical Commission
IML	Integrated Mullock Landform
IP	Induced Polarisation
IPCC	In-pit Crushing and Conveying
IPCC	Intergovernmental Panel on Climate Change
IPO	Initial Public Offerings
IRD	Iron Road Limited

IRR	Internal rate of return
ISO	International Organisation for Standardisation
IT	Information Technology
IWL	Integrated Waste Landform
J	
JORC	Australian Joint Ore Reserves Committee
K	
kg	Kilogram
km	Kilometre
km/h	Kilometres per hour
km ²	square kilometre(s)
kOz	Kilo Ounce
ktpa	Kilotonnes per annum
kV	Kilovolt
kW	Kilowatt
kWh/t	Kilowatt hours per tonne
L	
L	Lugeons
L/s	Litres per second
LA90	Noise level exceeded 90% of the measurement period. This descriptor is used to represent the background noise level.
LAeq	Equivalent (energy averaged) noise level measured over a time period. This noise descriptor is commonly used in environmental noise policies and assessments. The time period the measurement is averaged over may be included in the subscript, i.e. LAeq,10min
LAm _{ax}	The maximum A-Weighted noise level recorded over a measurement period
LAm _{in}	The minimum A-Weighted noise level recorded over a measurement period
LDC	long distance commute
LFA	Landscape Function Analysis
LGA	Local Government Area
LHD	Load Haul Dump
LOM	Life-of-mine
LoR	Limit of Reporting
LPG	Liquefied Petroleum Gas
LV	Light Vehicles
LVIA	Landscape and Visual Impact Assessment
M	
m	Metre
M	Million
m ²	Metres squared

m ³	Cubic metres
m ³ /s	Cubic metres per second
MAR	Managed Aquifer Recharge
Maximus	Maximus Resources Limited
mbgl	Metres below ground level
MC	Mineral Claim
MCP	Mine Closure Plan
MDBIH	Ministerial Determination for the Bird in Hand Gold Project
MD	Ministerial Determination 006 (published in the SA Government Gazette)
MDE	Maximum Design Earthquake
MES	Media Engagement Strategy
Mineral Claim	A prerequisite tenement to a mining lease or retention lease in South Australia. It provides an exclusive right for 12 months to prospect for minerals within the claim area and to lodge an application for a mining lease or retention lease pursuant to the Mining Act 1971.
Mining Act	Mining Act 1971 (SA)
ML	Mega Litres
ML	Mining Lease
MLA	Mining Lease Application
MLP	Mining Lease Proposal
mm	Micrometre
mm	Millimetres
MNES	Matter of National Environmental Significance
MoU	Memorandum of Understanding
MPa	Mega Pascals
MPA	Maximum Potential Acidity
MPL	Miscellaneous purposes licence
MPU	Mobile Processing Unit
MSDS	Material Safety Data Sheet
MSRR	Murphy South – Rob Roy
Mt	Million tonnes
Mtpa	Million tonnes per annum
MVA	Megavolt amperes
N	
N.S.W.	New South Wales
na	not available or not applicable
NAF	Non-acid Forming
NAG	New Acid Generation
NAG pH (ox)	Net Acid Generation pH after oxidation
NAPP	Net Acid Production Potential

NATA	National Association of Testing Authorities
NBN	National Broadband Network
NCSSA	Nature Conservation Society of South Australia
nd	not dated
NEPC	National Environment Protection Council
NEPM	National Environment Protection (Ambient Air Quality) Measure / National Environment Protection (Assessment of Site Contamination) Measure 1999
NHMRC	National Health and Medical Research Council
NMD	Neutral and metalliferous drainage
NMES	Matters of National Environment Significance
No.	Number
NO ₂	Nitrogen dioxide (molecular formula)
NO _x	Oxides of Nitrogen
NPI	National Pollutant Inventory
NPV	Net present value
NPW Act	National Parks and Wildlife Act 1972 (SA)
NQ	75.7mm External diameter drill bit size
NRM	Natural Resources Management
NRM Act	Natural Resource Management Act 2004 (SA)
NSW	New South Wales
NT	Northern Territory
NTU	Nephelometric Turbidity Units
NVHA	Native Vegetation Heritage Agreement
NV Act	South Australian <i>Native Vegetation Act 1991</i>
O	
OBE	Operating Basis Earthquake
OHS	Occupational Health and Safety
OK	Ordinary Kriging
OVM	Ounces per vertical metre
oz	Ounce (Troy)
P	
P	Phosphorous
p.a.	Per annum
PAF	Potentially Acid Forming
Pathway	The pathway, means or route (with consideration of natural barriers) by which an environmental receptor can be exposed to, or may reasonably be expected to be impacted by, an identified source.
Pb	Lead
PCQ	Pint Cantered Quarter method
PEPR	Program for Environment Protection and Rehabilitation
PGA	Peak Ground Acceleration
PIEs	Potential impact events

PIRSA	Primary Industries and Region South Australia
PM ₁₀	Particles with an aerodynamic diameter less than or equal to ten micrometres
PM _{2.5}	Particles with an aerodynamic diameter less than or equal to 2.5 micrometres
PMP	Probable Maximum Precipitation
PMST	Protected Matters Search Tool (see EPBC Act)
ppm	Parts per million
Project	BIH Gold Project
psi	Pounds per square inch
PSI	Preliminary Site Investigation
PWA	Prescribed Well Area
PWRA	Prescribed Water Resources Area
Q	
QA	Quality assurance
QAQC	Quality assurance, quality control
QLD	Queensland
R	
RAMSAR	List of Wetlands of International Importance, where contracting parties make commitments to conserve such wetlands within their country.
RAV	Restricted Access Vehicle
RC	Reverse Circulation
RCP	Representative Concentration Pathways (refer to radiative forcings (global energy imbalances), measured in watts per square metre, by the year 2100)
RDA	Regional Development Australia
RF	Rock fill
RL	Reduced Level (or Relative Level)
RO	Reverse Osmosis
ROM	Run Of Mine
RQD	Rock Quality Definition
S	
S	Sulphur
SA	South Australia
SA Air Quality Index	A scale that indicates the quality of air, based on air pollutant monitoring data. The index is developed using a descriptive scale that relates to Australia's air quality standards. If the air quality is classified as poor, then one or more pollutants in the air have exceeded the national standard. Further information is available at the EPA website: www.epa.sa.gov.au .
SA Water	South Australian Water Corporation
SA3	Statistical Area Level 3
SACOME	South Australian Chamber of Mines and Energy

SAG	Semi Autogenous grinding
SAMDB	South Australian Murray-Darling Basin
SAPN	South Australian Power Network
SCCC	Strathalbyn Community Consultative Committee
SCMP	Soil Contamination Management Plan
SEB	Significant Environmental Benefit
SES	State Emergency Service
SG	Specific gravity
SIA	Social Impact Assessment
SiO ₂	Silica
SMS	Safety Management System
Source	The source of an impact (as attributed to mining operations) which has the potential to cause harm to an environmental receptor.
SPR	Source Pathway Receptor
SPRAT	Species Profiles and Threats Database (Department of the Environment)
SQL	Structures Query Language
SSC	State suburb
STEDS	Septic Tank Effluent Disposal Scheme
Stomata	An opening in leaves or stems through which gases are exchanged. Stomata open in the light during conditions of adequate water supply to facilitate growth and close in darkness and to reduce water loss, so growth is slowed.
SVAP	Strategic Visual Amenity Plan
T	
t	Tonne
t	tonne
TARP	Trigger, Action, Response Plans
tbc	to be confirmed
TDS	Total dissolved solids
Terramin	Terramin Exploration Pty Ltd and Terramin Australia Ltd
TKN	Total Kjehldahl Nitrogen
tpa	Tonnes per annum
TS	Transfer Station
TSF	Tailings Storage Facility
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
U	
UC	Uncertain
UCL	Urban centre/locality

UCS	Unconfined (or uniaxial) compressive strength - a property of rock used to define its strength
UG	Underground
UHF	Ultra-high frequency
µm	Micrometre
unpub	unpublished
US\$	United States dollars
UPVC	Unplasticised polyvinyl chloride
USCE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UV	Ultra Violet
V	
V	Volt
VIC	Victoria
VKT	Vehicle Kilometres Travelled (NPI term)
VOC	Volatile Organic Compounds
Vol no	Volume number
W	
W	Width
WA	Western Australia
WAA	Water affecting activity
WAP	Western Mount Lofty Ranges Water Allocation Plan
Water Quality EPP	Environment Protection (Water Quality) Policy (SA)
WDE	Water dependent ecosystem
WHC	Water Holding Capacity
WHS	Workplace Health and Safety Regulations (SA)
WMLR	Western Mount Lofty Ranges
WMLRWAP	Western Mount Lofty Ranges Water Allocation Plan
WMT	Wet metric tonne
WMZ	Western Mediterranean Zinc Spa
WoNS	Weed of National Significance
WPA	Wilderness Protection Area
WSA	Water Supply Code of Australia
WSUD	Water Sensitive Urban Design
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant
X	
XRF	X-Ray Fluorescence Analyser
Z	
Zn	Zinc
ZTVI	Zone of theoretical visual influence