

LIST OF ABBREVIATIONS

%	Percent
%S	percent sulphur
µg/m ³	micrograms per cubic metre
µg/m ³	micrograms per cubic metre
µm	micron
µS/cm	mircoSiemens per centimetre
AADT	Annual Average Daily Traffic
AARC	AustralAsian Resource Consultants Pty Ltd
ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ACH Act	<i>Aboriginal Cultural Heritage Act 2003</i>
AEP	Annual Exceedance Probability
AGE	Australasian Groundwater and Environmental Consultants Pty Ltd
AMD	Acid Mine Drainage
ANC	Acid Neutralising Capacity
ANFO	Ammonium Nitrate / Fuel Oil
ANZECC	Australia and New Zealand Environment and Conservation Council
ARI	Annual Recurrence Interval
ASL	Above Sea Level
ATC	Australian Tailings Consultants
Au	Gold
BOM	Bureau of Meteorology
CATV	Community Access Television (Cable TV)
CBR	California Bearing Ratio
CCP	Community Consultation Program



CEC	Cation Exchange Capacity
CHMP	Cultural Heritage Management Plan
CLR	Contaminated Land Register
cm	centimetre(s)
CNV	carbonate neutralising value
Co	Cobalt
CSS	Closed Side Setting
CTD	Central Thickened Discharge
Cu	Copper
dB	decibel
DERM	Department of Environment and Resource Management
DMR	Department of Main Roads
DNRW	Department of Natural Resources and Water
DPI&F	Department of Primary Industries and Fisheries
DSA	Design Storage Allowance
EA	Environmental Authority
EC	Electrical Conductivity
EHM	Ernest Henry Mine
EIS	Environmental Impact Statement
EM Plan	Environmental Management Plan
EMR	Environmental Management Register
EMR	Environmental Management Register
EPA	Environmental Protection Agency
EP Act	<i>Environmental Protection Act 1994</i>
EP Regulation	<i>Environmental Protection Regulation 2008</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPM	Exploration Permit – Minerals

EPP	Environmental Protection Policy
EPP(Air)	<i>Environmental Protection (Air) Policy 2008</i>
EPP(Noise)	<i>Environmental Protection (Noise) Policy 2008</i>
EPP(Waste Management)	<i>Environmental Protection (Waste Management) Policy 2000</i>
EPP(Water)	<i>Environmental Protection (Water) Policy 1997</i>
ERA	Environmentally Relevant Activity
ERE	Endangered Regional Ecosystem
ESA	Environmentally Sensitive Area(s)
ESA	Equivalent Standard Axles
ESP	Exchangeable Sodium Percentage
Exco	Exco Resources Limited
Fe	Iron
FIFO	Fly In / Fly Out
g/t	grams per tonne
GAB	Great Artesian Basin
GAI	Geochemical Abundance Indices
GGMP	Greenhouse Gas Management Plan
GL	Gigalitre(s)
GPS	Global Positioning System
gpt	grams per tonne
GSI	Geological Strength Index
ha	hectare(s)
HDPE	High Density Polyethylene
HML	Heavy Mass Limit
IBC	Intermediate Bulk Container
ICP-MS	Inductively Coupled Plasma – Mass Spectroscopy
IEC	International Electrotechnical Commission

ILUA	Indigenous Land Use Agreement
JORC	Joint Ore Reserves Committee
kg	kilogram(s)
km	kilometre(s)
km/hr	kilometres per hour
km/hr	kilometres per hour
km ²	square kilometre(s)
kPa	kiloPascals
kT	kilotonnes
kV	kilovolt
L	Litre(s)
L/s	Litres per second
LAN	Local Area Network
LGA	Local Government Area
LGC	Local Government Controlled
LGR	Local Government Roads
LP Act	<i>Land Protection (Pest and Stock Route Management) Act 2002</i>
LR	Landowner Royalty
LV	Light Vehicle
m	metre(s)
M	Million
m/d	metres per day
m/s	metres per second
m ²	square metre (s)
m ³	cubic metre(s)
m ³ /h	cubic metres per hour
m ³ pa	cubic metres per annum

Ma	Megaannum (1 million years)
mbGL	metres below Ground Level
mbTOC	metres below Top Of Casing
MDD	Maximum Dry Density
mg/kg	milligrams per kilogram
mg/L	milligrams per Litre
MIC	Miscellaneous Instantaneous Charge
MIM	Mount Isa Mine
ML	megalitre(s)
ML	Mining Lease
ML/day	megalitre(s) per day
MLT	Mining Lease (Transport)
mm	millimetre(s)
mm/s	millimetres per second
MPA	Maximum Potential Acidity
MR Act	<i>Mineral Resources Act 1989</i>
MSDSs	Material Safety Data Sheets
Mt	million tonnes
MTL	Mining Lease (Transport)
Mtpa	Million tonnes per annum
MVA	Megavolt Amperes
MVA	Megavolt Amperes
MW	megawatt
NAF	Non Acid Forming
NAG	Net Acid Generation
NAPP	Net Acid Producing Potential
NATA	National Association of Testing Authorities

NC Act	<i>Nature Conservation Act 1992</i>
NCWR	<i>Nature Conservation (Wildlife) Regulation 2006</i>
NGER Act	<i>National Greenhouse and Energy Reporting Act 2007</i>
NPI	National Pollutant Inventory
NSESD	National Strategy for Ecologically Sustainable Development
NWQ	North West Queensland
°C	degrees Celsius
OD	Outside Diameter
oz	ounce(s)
PAF	Potentially Acid Forming
PAWC	Plant Available Water Capacity
pH	Power of Hydrogen
PL	Poverty Line
ppm	parts per million
PPV	Peak Particle Velocity
QEPA	Queensland Environmental Protection Agency
Qld.	Queensland
RE	Regional Ecosystem
RIA	Road Impact Assessment
RL	Relative level
ROM	Run of Mine
RSS	Rising stage Sampler
RUMP	Road Use Management Plan
SCR	State Controlled Road
SGR	State Government Royalty
SIA	Social Impact Assessment
SPP	State Planning Policy

t	tonne(s)
TAPM	The Air Pollution Model
TBR™	Turbo Bioreactor
TDS	Total Dissolved Solids
TOR	Terms of Reference
tpa	tonnes per annum
tpd	tonnes per day
TSF	Tailing Storage Facility
TSP	Total Suspended Particle
UC	Uncertain acid forming potential
VM Act	<i>Vegetation Management Act 1999</i>
VMR	<i>Vegetation Management Regulation 2000</i>
WMP	Waste Management Plan
WR	Waste Rock

GLOSSARY OF TECHNICAL TERMS

Acid Buffering Characteristic Curve (ABCC) – Acid Buffering Characteristic Curve is produced by slow titration of a sample with acid, and provides an indication of the relative reactivity of the ANC measured. The acid buffering of a sample to pH 4 can be used as an estimate of the proportion of readily available ANC.

Acid Mine Drainage (AMD) - Acid mine drainage, also called acid rock water or acid rock drainage (ARD), refers to the outflow of acidic water from (usually) abandoned metal mines or coal mines. Acid rock drainage occurs naturally within most environments as part of the rock weathering process but is exacerbated by large-scale earth disturbances characteristic of mining and other large construction activities, usually within rocks containing an abundance of sulfide minerals.

Acid Neutralising Capacity (ANC) – Acid Neutralising Capacity is a measure of the buffering capacity or inherent neutralising ability of the material (often due to the presence of carbonate minerals). This is determined by the addition of a known amount of standardised acid (H_2SO_4 or HCl) to an accurately weighed sample, allowing the sample time to react (with heating), then back-titrating the mixture with standardised NaOH to determine the amount of acid consumed by reaction with the sample. Units are in kg H_2SO_4 per tonne of ore.

Acid-Base Account Plot – The graphical representation of Total Sulfur content (%) versus ANC (kgH_2SO_4/t). This graphical representation shows the NAPP negative and NAPP positive zones.

Acid-Base Accounting (ABA) - Acid-Base Accounting is the balance between the acid-production and acid-consumption properties of a mine-waste material. Minerals in waste material (mostly sulfides and pyrite) react with water and oxygen to produce sulfuric acid. ABA consists of measuring the acid generating and acid neutralizing potentials of a rock sample.

Alluvial – of or pertaining to alluvium - Sand, silt, clay, gravel, or other matter deposited by flowing water, as in a riverbed, floodplain, delta, or alluvial fan. Alluvium is generally considered a young deposit in terms of geologic time.

Alluvial Aquifer - saturated permeable geological unit permeable enough to yield quantities of water situated in alluvial sediments.

Amphibolite - metamorphic rock containing amphibole and plagioclase minerals formed under moderately high temperature/pressure conditions

ANABAT - In order to navigate and hunt at night, micro-bats use high frequency echolocation calls, most of which are above the frequency range audible to humans (i.e. ultrasound). These echolocation calls provide an opportunity to unobtrusively survey and identify micro-bats through the use of a specialised electronic bat call recorder called ANABAT

ANC/MPA Ratio - Acid Neutralising Capacity/Maximum Potential Acidity ratio is used as an indication of the relative factor of safety within the NAPP negative domain. Usually a ratio of 2 or more signifies a high probability that the material will remain circum-neutral in pH and thereby should not be problematic with respect to Acid Rock Drainage. Acid Neutralising Capacity/Maximum Potential Acidity ratio of 1 is equal to the NAPP zero line, hence this line is only shown once.

Annual Recurrence Interval (ARI) - The recurrence interval (sometimes called the return period) is based on the probability that the given event will be equalled or exceeded in any given year. For

example, if there is a 1 in 50 chance that 6.60 inches of rain will fall in a catchment in a 24-hour period during any given year, a rainfall total of 6.60 inches in a consecutive 24-hour period is said to have a 50-year recurrence interval. Rainfall recurrence intervals are based on both the magnitude and the duration of a rainfall event, whereas streamflow recurrence intervals are based solely on the magnitude of the annual peak flow.

ANZECC 2000 Guidelines – Australian and New Zealand Guidelines for Fresh and Marine Water Quality are guidelines that update the Australian water quality guidelines for fresh and marine waters released in 1992. These guidelines provide a summary of the water quality guidelines proposed to protect and manage the environmental values supported by the water resources and provide advice on designing and implementing water quality monitoring and assessment programs.

Batter - To construct so as to create an upwardly receding slope when rehabilitating waste rock dumps. A backward and upward slope of the face of a waste rock dump.

Bedrock - is the native consolidated rock underlying the Earth's surface. Above the bedrock is usually an area of broken and weathered unconsolidated rock in the basal subsoil. The term implies that the rock lies in beds, or strata. Under any given location on the surface of the planet, rock will be found.

Berm - A narrow ledge or shelf, as along the top or bottom of a slope. Berms are essentially the same thing as the benches. They are narrow flattened areas that interrupt the declivity of the regraded slopes of the rehabilitated waste rock dump.

Biotite Quartz – Mica (which biotite is a form of) is a common rock-forming minerals characterized by a layer structure which gives the crystals a platy form and a perfect basal cleavage. Micas are chemically complex hydrous sheet silicates, commonly containing aluminium, potassium, sodium, magnesium, and iron. Quartz is one of the commonest of all rock-forming minerals and one of the most important constituents of the earth's crust. Chemically, it is silicon dioxide, SiO₂. It occurs in crystals of the hexagonal system, commonly having the form of a six-sided prism terminating in a six-sided pyramid; the crystals are often distorted and twins are common. Biotite Quartz is a quartz base with biotite mica crystals contained within.

Breccia - Rock which has been broken into angular fragments by sedimentary or igneous action.

Bund - Bunding, also called a bund wall, is the area within a structure designed to prevent inundation or breaches of various types.

Calcareous - of, containing, or like calcium carbonate; chalky: calcareous earth.

California Bearing Ratio (CBR) – The California bearing ratio (CBR) is a penetration test for evaluation of the mechanical strength of road subgrades and basecourses. The test is performed by measuring the pressure required to penetrate a soil sample with a plunger of standard area. The measured pressure is then divided by the pressure required to achieve an equal penetration on a standard crushed rock material. A CBR of 3 equates to tilled farmland, a CBR of 4.75 equates to turf or moist clay, while moist sand may have a CBR of 10. High quality crushed rock has a CBR over 80.

Cambrian - geological era, the oldest system into which Palaeozoic stratified rocks are divided, about 500 to 600MA

Capillary Break – A capillary break is a space, or layer, between two surfaces which is purposely made wide enough to prevent the movement of moisture through the space by capillary action.



Capillary Forces - is the ability of a substance to draw a liquid upwards against the force of gravity. It occurs when the adhesive intermolecular forces between the liquid and a solid are stronger than the cohesive intermolecular forces within the liquid. The effect causes a concave meniscus to form where the liquid is in contact with a vertical surface.

Carbonaceous Slate - fine-grained rock formed by the metamorphosis of shale, that tends to split along parallel cleavage planes, usually at an angle to the planes of stratification – rich in carbon.

Central Thickened Discharge (CTD) – The concept of central thickened discharge of tailings is to create a conical stack by pumping the tailings slurry from a single central point. If non-segregated tailings are discharged onto level ground they will build up a beach at a low but constant angle. The beach slope is generally in the range of 0.5% - 2.0% and this technique avoids the need for major containment embankments.

Chainages – A length of road measured from one intersection to the next.

Chalcopyrite – is a copper iron sulfide mineral that crystallizes in the tetragonal system. On exposure to air, chalcopyrite oxidises to a variety of oxides, hydroxides and sulfates.

Circum-neutral pH – around the neutral range: $6.7 < \text{pH} < 7.7$

Closed Side Setting (CSS) – The closed side setting refers to the adjustment at the bottom opening of the jaw crusher which dictates the maximum piece size of the material following the crush process.

Corella Formation - Intensely altered, carbonate rich Proterozoic rocks exposed in a window in

EcoAccess Guidelines – The QEPA guidelines for environmental licensing and permits.

El Nino/Southern Oscillation - El Niño-Southern Oscillation (ENSO) is a global coupled ocean-atmosphere phenomenon. The Pacific ocean signatures, El Niño and La Niña are major temperature fluctuations in surface waters of the tropical Eastern Pacific Ocean.

Elliot Trapping – small metal folding traps baited with oats and honey etc to catch small mammals and reptiles.

Exchangable Sodium Percentage - Is calculated as the proportion of the cation exchange capacity occupied by the sodium ions and is expressed as a percentage. In Australia, sodic soils are categorised as soils with an ESP of 6-14% and strongly sodic soils have an ESP of 15% or greater. Soils with a low ESP will have low dispersivity and therefore resist erosion.

Extant Native Vegetation – Still existing pockets of native vegetation.

Flotation circuits – For mineral processing flotation circuits are generally composed of a combination of rougher, cleaner(s) and scavenger(s) (see rougher-scavenger flotation). The flotation circuit configuration is one of the most important factors affecting the performance of a flotation circuit for a given feed material.

Foliated - The layered or banded structure of rock in which the mineral grains became re-aligned at right angles to a directional force that existed during metamorphism.

Freeboard - the distance between the level of the water and the upper surface of the tailings dam or any other associated dams on site.



Froth Flotation - Froth flotation is one of the most widely accepted industrial practices for separation of valuable components from associated gangue materials in mineral ores.

Fugitive Emissions - Inconstant or transient emissions of gases or particulate matter.

Geotechnical Abundance Indices (GAI) - Geochemical abundance indices (GAI's) and are used to identify any elements (especially metals) that occur at concentrations that are well above normal background values and may require further investigation to assess their environmental significance. The GAI is expressed in integer increments where a GAI of 0 indicates the element is present at a concentration similar to, or less than, the median soil abundance; and a GAI of 6 indicates approximately a 100-fold enrichment above median soil abundance. As a general rule, a GAI of 3 or greater signifies enrichment to a concentration that warrants further examination.

Guelph Permeameter – The Guelph Permeameter is a constant head permeameter that measures in-situ hydraulic conductivity. The method involves measuring the steady-state rate of water recharge into unsaturated soil from a 2 inch cylindrical hole, in which a constant head of water is maintained. Calculations are made to determine the hydraulic conductivity, soil sorptivity and soil matrix flux potential.

High Plasticity – Highly malleable clay

Kibble – Coarsely ground ore material.

Kinetic NAG Testing - The NAG test provides a direct assessment of the potential for a material to produce acid after a period of exposure and weathering and is used to refine the results of the theoretical ABA predictions. This method involves the addition of hydrogen peroxide to a prepared sample of mine waste to oxidise contained reactive sulfides. This is followed by measurement of the pH of the reaction solution and titration of any net acidity produced by the acid generation and neutralisation reactions occurring in the sample. Units are in kg H₂SO₄ per tonne of ore.

L10 - The L₁₀ and L₉₀ are respectively the A-weighted noise levels exceeded 10%, and 90% of the time. for a specified time interval, means the A-weighted sound pressure level that is equalled or exceeded for 10% of the interval.

L90 - The L90 is commonly referred to as the background noise level. the A-weighted sound pressure level that is equalled or exceeded for 90% of that part of the interval in which the investigated noise is absent.

LAm_{ax} - "maximum sound pressure level" means the highest momentary sound pressure level from a single noise event.

Landzone - is a simplified geology/substrate-landform classification for Queensland.

Leachate – In the context of this EIS leachate is a solution resulting from groundwater percolating through tailings.

Leq - The L_{eq} is the energy average noise level containing the same acoustic energy as the actual fluctuating noise level.

Log Pearson Type III Frequency Distribution - is a statistical technique for fitting frequency distribution data to predict the design flood for a river at a site.

Macropod - (large-foot) – a member of the family macropodidae, ie wallabies and kangas.



Material Safety Data Sheets - Contain information on the hazards associated with a chemical, along with guidance on its safe use.

Mine Life/Project Life – The life of the Project refers to the length of time the Project will be in operation.

Mixing Height (Inversions) - A reversal in the normal temperature lapse rate, the temperature rising with increased elevation instead of falling.

NAPP Zero Line - Net Acid Producing Potential zero line is shown defines the NAPP positive and NAPP negative domains. The ANC/MPA ratio of 1 is equal to the NAPP zero line.

National Pollutant Inventory - Australia's national database of pollutant emissions. The National Pollutant Inventory provides Australians with free access to information on the types and amounts of pollutants being emitted in their community.

Net Acid Generation (NAG) – The NAG value measures the acidity after oxidation and is expressed as kilograms of sulphuric acid per tonne of rock.

Net Acid Producing Potential (NAPP) - This is also a theoretical calculation value commonly used to indicate if a material has potential to generate ARD. It represents the balance between the capacity of a sample to generate acid (TAPP) and its capacity to neutralise acid (ANC). The NAPP is also expressed in units of kg H₂SO₄ per tonne ore and is calculated as follows:

$$\text{NAPP} = \text{TAPP} - \text{ANC}$$

Not Acid Forming (NAF)- A sample of soil is usually defined as NAF when it has a negative NAPP and the NAG pH => 4. Material classified as NAF is considered unlikely to be a source of acidic drainage. Where there is significant total S (>1%), more detailed investigation may be required to confirm that the ANC measured is available at the same rates as acid production through sulphide oxidation.

Pasquill-Gifford Stability Class - The atmospheric stability is important in determination of lateral and vertical horizontal dispersion parameters. The most commonly used classification is that of Pasquill (1961), later modified by Gifford (1961), and referred to as the Pasquill-Gifford (P-G) stability class. Unstable conditions are represented by the letter 'A' (or the number 1), while increasingly more stable conditions are denoted with successive letters of the alphabet, such that extremely stable conditions are represented by 'F' and/or 'G' (6 and/or 7). Neutral atmospheric conditions are given by the 'D' (4) classification.

Pit dewatering – The act of releasing groundwater around the edges of the area to become an open pit progressively as the pit is dug. This process keeps groundwater out of the open pit so as mining can occur.

Pitfall Trapping – Pitfall traps target small ground-dwelling fauna (reptilian, mammalian and amphibian). Each Pitfall trap line consists of a 20cm tall wire-mesh drift fence running along the ground and crossing the middle of five 20 litre buckets buried flush with the soil surface. The bottoms of the drift fences were buried slightly to guide target species towards a bucket. A small amount of soil and a damp sponge were placed in the bottom of each bucket to provide shelter and moisture for captured wildlife.

PM10 – Fine airborne particles with an aerodynamic diameter of less than 10µm (PM₁₀) are small enough to be breathed into the lungs. Fine particles are most commonly implicated as causing health



effects. Health and amenity impacts of dust are regulated by setting limits on ambient levels of total suspended particulates (TSP), PM₁₀ and dust deposition.

PM_{2.5} - Particles with an aerodynamic diameter of less than 2.5 µm (PM_{2.5}) or fine particles are generally produced by combustion processes and can penetrate deep into the lung where their removal rate is slow.

Potentially Acid Forming (PAF) - A sample is usually defined as PAF when it has a positive NAPP and the NAG pH < 4. A sample classified as PAF always has a significant sulphur content, the acid generating potential of which exceeds the inherent acid neutralising capacity of the material.

Precautionary Principle - if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Pre-strip – The waste rock material stripped from the sites to be mined. It is referred to as 'pre-strip' as the stripping is done before an open-pit is excavated and before mining commences.

Pyrite - A brass-colored mineral, FeS₂, occurring widely and used as an iron ore and in producing sulfur dioxide for sulfuric acid.

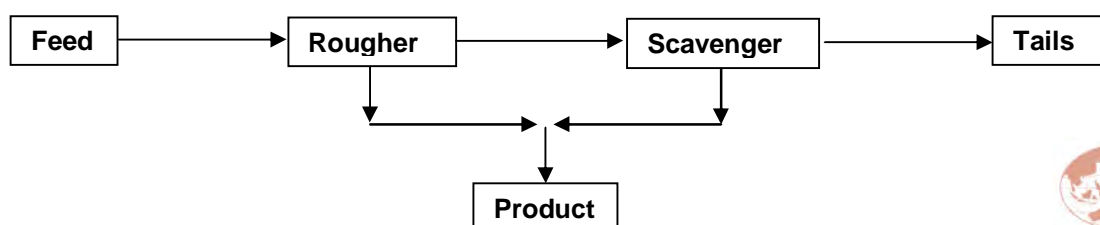
Regional Ecosystem - Regional ecosystems were defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil.

Remnant Vegetation - Remnant vegetation is defined in the Vegetation Management Act 1999 as vegetation shown on a regional ecosystem or remnant map. Woody vegetation is mapped as remnant where the dominant canopy has greater than 70% of the height and greater than 50% of the cover relative to the undisturbed height and cover of that stratum and dominated by species characteristic of the vegetation's undisturbed canopy. An undisturbed stratum (or layer) is defined as one that shows no evidence of extensive mechanical or chemical disturbance (logging, clearing, poisoning, etc.) evident in field inspections or on the available historical aerial photographic record.

Rill and Gully - A rill is a narrow and shallow incision into soil resulting from erosion by overland flow that has been focused into a thin thread by soil surface roughness. A gully is a landform created by running water eroding sharply into a hillside. Gullies resemble large ditches or small valleys, but are metres to tens of metres in height and width.

Rising Stage Sampler – A water sampling apparatus which consists of a metal mast or star-picket, anchored in the bank or bed of the waterway. Five sample bottles, each with a holding capacity of one litre, are secured to the mast at fixed intervals. Each sample bottle contains a plastic ball, and is fitted with a specially designed inlet mechanism and valve. As water begins to flow through the creekbed, it enters the lowest bottle and air is vented through an exhaust tube. As the bottle fills, the plastic ball rises and closes the valve, preventing any further water from entering the bottle. As the water level in the creekbed continues to rise, each sample bottle is progressively filled then sealed off.

Rougher/Scavenger Flotation Circuit - The RS circuit is the traditional flotation circuit used in most mineral processing operations. In this set-up, feed is pumped to a rougher column which produced a primary clean mineral concentrate and primary tailings. The rougher tailings were pumped to a scavenger column which produced the final reject stream and intermediate clean product.



Saprolite - is the name for a chemically weathered rock. It is mostly soft or friable and commonly retains the structure of the parent rock since it is not transported, but autochthonously formed in place.

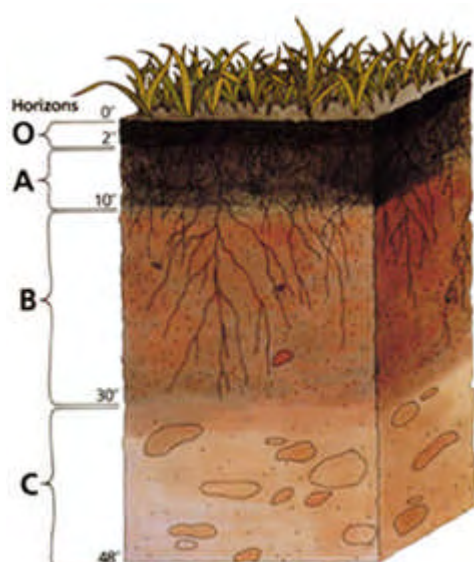
Seed Bank – A store of viable seed buried and dormant in the soil or underwater sediments.

Silicate – is used to denote types of rock that consists predominantly of silicate minerals.

Siltstone – Sedimentary rocks primarily composed of silt, defined as grains smaller than 62 micrometers.

Smelter - In extractive metallurgy, a smelter is a factory for producing metal by the reduction of ore.

Soil Profile - Soil generally consists of visually and texturally distinct layers, which can be summarized as follows, from top to bottom:



O) Organic matter: Litter layer of plant residues in relatively undecomposed form.

A) Surface soil: Layer of mineral soil with most organic matter accumulation and soil life. This layer eluviates (is depleted of) iron, clay, aluminum, organic compounds and other soluble constituents. When eluviation is pronounced, a lighter colored "E" subsurface soil horizon is apparent at the base of the "A" horizon.

B) Subsoil: Layer of alteration below an "E" or "A" horizon. This layer accumulates iron, clay, aluminum and organic compounds, a process referred to as illuviation.

C) Substratum: Layer of unconsolidated soil parent material. This layer may accumulate the more soluble compounds that bypass the "B" horizon.

Spigot style discharge system – In the context of this EIS the spigot style system is used to describe the valve release system to discharge the supernatant water from the tailings to the decant pond.

Sterilization Drilling – Using drill cores to test areas of prospective ore. If the results reveal low prospective zones, the area will be declared sterile and things such as infrastructure and waste dumps can be located in these sterile zones.

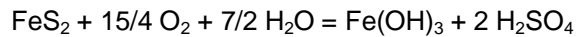
Storativity - Volume of water released from storage per unit surface area of aquifer per unit change in head

Stratabound – Confined within a specific strata layer.

Stratiform - Comprised of layers

Supernatant - refers to the often clear liquid above non-soluble solids. These solids may reach the bottom of a container by means of settling, precipitation, or centrifugation.

TAPP - This is a theoretical calculation value based on the total sulfur content in the sample and the following reaction:



Units are same as above of kg H₂SO₄ per tonne ore.

If the TAPP is less than the ANC then the NAPP is negative, which indicates that the sample may have sufficient ANC to prevent acid generation. Conversely, if the NAPP is positive, it indicates that the material may be acid generating.

The Air Pollution Model (TAPM) – A prognostic meteorological model which predicts the flows important to regional and local scale meteorology, such as sea breezes and terrain-induced flows from the larger-scale meteorology provided by the synoptic analyses.

Toe Slope - The component of the hill slope that forms the outermost, gently inclined surface at the base. The surface is dominantly linear in profile and depositional in origin.

Total Suspended Particulate (TSP) – Tiny airborne particles or aerosols that are less than 100 micrometers are collectively referred to as total suspended particulate matter

Total Suspended Solids (TSS) - refers to the identical measurement: the dry-weight of particles trapped by a filter, typically of a specified pore size.

Transformer - is an electrical device that transfers energy from one circuit to another by magnetic coupling with no moving parts. A transformer comprises two or more coupled windings, or a single tapped winding and, in most cases, a magnetic core to concentrate magnetic flux. A changing current in one winding creates a time-varying magnetic flux in the core, which induces a voltage in the other windings.

Trommel - A revolving cylindrical sieve used for screening or sizing rock and ore.

Turbo Bioreactor (TBR™) – A Turbo Bioreactor is a compact waste water treatment system designed to efficiently treat high flow rates by incorporating an additional bio-media within the bioreactor tank which allows for a greater population of bacteria to be produced within the same size tank, thereby substantially reducing the retention time for the same volume of water to be treated.

UC - An uncertain classification is used when there is an apparent conflict between the NAPP and NAG results (i.e. when the NAPP is positive and NAG pH > 4; or when the NAPP is negative and NAG pH < 4). Uncertain samples require more detailed investigation, such as kinetic NAG or column leaching, to determine the acid potential.

Voucher Specimen - Is any specimen that serves as a basis of study and is retained as a reference.

Windrowed – In the context of this EIS windrowed refers to the collecting and piling of cleared vegetation to be left to dry before burning or chipping it for reuse.