



Chapter 12 - Glossary

12. GLOSSARY

Accredited laboratory

An analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation to be equivalent to the SCC, or able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

ANFO A base explosive named for two primary ingredients, ammonium nitrate and fuel oil;

Acid Potential (AP) The maximum acid-generation potential, expressed as tonnes of CaCO₃ per 1,000 tonnes of a material tested, determined in accordance with a static Acid-Base Accounting method satisfactory to the Director;

Backfill Waste material used to fill the void created by mining an orebody;

Ball Mill A rotating steel cylinder, which uses cascading steel balls to grind the ore;

Berm A ridge or small dyke that breaks the continuity of a slope and may be used to isolate a work area;

Best Management Practices

A practice or a combination of practices that are determined to be the most technically and economically feasible means of preventing or managing potential impacts;

Binder The cement added to mine backfill to consolidate it;

Check dam A small dam constructed in a ditch or channel to decrease water velocity and promote the accumulation of sediment;

Coffer dam A watertight enclosure built within a channel that is pumped dry to allow for construction or maintenance activities in the isolation of flowing water;

Composite sample As defined in the MMER;

Concentrate A product containing a high concentration of the valuable minerals of an ore from which most of the waste material has been removed;

Concentrator A plant with grinding and mineral separation steps that produces a concentrate of the valuable minerals or metals;

Cone crusher A machine that crushes ore between a gyrating cone or crushing head and an inverted truncated cone known as a bowl;

Contaminated soil Soil, which contains contaminant concentrations in excess of the applicable remediation criteria cited in the CCME's "Canadian Environmental Quality Guidelines" report ISBN 896-997-34-1, update 5.0, 2006, and or any future amendment thereof;

Cyclone	A conical-shape equipment which separates the coarser and heavier fractions of solids to the apex of a long cone and the finer and lighter fractions to the central vortex at the top;
Deleterious substance	A substance harmful to fish or fish habitat: <ul style="list-style-type: none">(a) any substance that, if added to water, would degrade, alter, or form part of a process of degradation or alteration of the quality of water; so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water;(b) any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water;
Density	The mass of a substance per unit volume;
Dilution	Waste rock mixed in with ore. Dilution % is defined as weight of waste divided by weight of ore;
Dip	The angle that the orebody is inclined from vertical;
Director	An employee of the department appointed as such by the Minister;
Diversion dam	A barrier built within an active channel in order to divert water along a different flow path;
Effluent	Any treated or untreated mine water released into the environment;
Ephemeral channel	A watercourse that flows for only short periods during the year, but which may still provide important habitat during those times;
Erosion and Sediment Control Plans	A set of measures designed to control surface runoff and erosion, and to retain sediment on a particular site during the period in which construction- or maintenance-related land disturbances, fills, and soil storage occurs;
Erosion	Detachment and transport of soil particles by water, wind, ice, gravity or the activity of organisms;
Extensometer	A distance measuring device use to determine closure of mine openings;

Final discharge point	With respect to an effluent release, means an identifiable discharge point of a mine beyond which the Operator/Owner no longer exercises control over the quality of the effluent;
Float	Pieces of rock that are lighter than the fluid in a dense media separation process;
Flotation cell	An equipment where the slurry is agitated and aerated to separate a mineral-laden froth from barren tailings;
Flotation	A milling process by which mineral particles are induced to attach to air bubbles and float. In this way the valuable minerals are concentrated and separated from the gangue (waste);
Flowsheet	An illustration showing the sequence of operations by which ore is treated in a milling, concentration, or metallurgical process;
Gangue or Waste	The part of the ore containing minerals that have no value and are separated from the valuable minerals during the concentration process;
Genset	A diesel powered electrical generator;
Geotextile	A synthetic material used for erosion control to block sediment from water flowing across an area;
Grab sample	Grab sample as defined in the MMER;
Grade	The metal content of rock or concentrate;
Grizzly	Coarse screen that prevents oversized ore from entering the process;
Industrial complex	The main building for the operation, which houses the mill, flotation circuit, reagents circuit, Frac Sand Plant, concentrate storage area, maintenance facility, warehouse, mine dry and offices;
Jaw crusher	A machine that crushes rock between a moving and a stationary steel plates;
Leaky feeder	A radio communications system for mines that uses a suspended fibre optic cable for translation of signals;
Liquefaction	A phenomenon where sand to clay sized materials, when saturated with water, can behave like liquid instead of like solid materials – usually caused by vibrations or shaking;
Local Study Area	An area where project effects can be predicted with a reasonable degree of accuracy and confidence and impacts are likely to be most concentrated.
Magazine	Specialized storage for explosives or detonators (which are always stored separately);
Magnetic separator	A machine that applies a strong magnetic field to separate and collect the magnetic materials onto a rotating drum, away from non-magnetic materials;

Metal Mining Effluent Regulations

The Metal Mining Effluent Regulations (SOR/2002-222), or any future amendments thereto, promulgated under the federal Fisheries Act;

Mill A piece of equipment consisting of a revolving drum for grinding ores and reducing the particle size;

Mine Includes all the open pit, overburden, waste rock and ore stockpiles, crusher, mill/concentrator, all ancillary buildings, wastewater treatment, impoundment or control facilities, and such other on-site infrastructure as may be located on the mine site and associated with the Development;

Mine site Includes the whole operational or disturbed area of land within the boundaries of those surface rights acquired and held by the Licencee for the operation of the Development;

Mine water Fluids pumped to the surface from underground mine workings or from an open pit, or fluids used to transport tailings, or contaminated runoff or leachate from ore or waste rock stockpiles exposed to precipitation, or polluted mine site runoff, or seepage or runoff losses from tailings deposits stored on the surface of land, or any combination thereof;

Mineral A naturally occurring material having definite physical properties, chemical composition and, crystal form which may be of value;

Mitigation Actions taken during the planning, design, construction and operation of works and undertakings to eliminate or reduce potential adverse environmental effects of the project;

MMER The federal Metal Mining Effluent Regulations;

Neutralizing Potential (NP)

The maximum neutralizing potential, expressed as tonnes of CaCO₃ per 1,000 tonnes of a material tested, determined in accordance with a static Acid-Base Accounting method satisfactory to the Director;

Neutralizing Potential Ratio (NPR)

The neutralizing potential ratio as determined from the ratio of NP/AP;

Regional Study Area (RSA)

An area where, depending on conditions (e.g. seasonal conditions, habitat use, more intermittent and dispersed project activities), project effects may be more wide reaching;

Stockpile A pile of broken rock, ore or waste;

Ore A mineralized rock containing sufficient mineral value for the purposes of this Development;

Potentially acid-generating (PAG)

Having the potential or uncertain ability to generate acid as indicated by a NPR of 4 or less, until or unless an appropriate alternate NPR cut-off value is determined, to the satisfaction of the Director, through detailed characterizations, evaluations, and interpretations, or through kinetic testing, carried out on representative test material by qualified individuals;

Recovery The percentage of valuable metal in the ore that is recovered by metallurgical treatment;

Reserve The portion of a resource that can be extracted economically, as proven by sufficient engineering;

Resource The estimated quantity and grade of a mineralized zone as established by the geological and assay data. A resource is divided into “measured”, “indicated” and “inferred” classifications based on degree of confidence in the estimate;

Rock Breaker A hydraulic or pneumatic hammer mounted on a hinged arm (usually over a grizzly) to break very large rocks into smaller fragments before they get to the crusher;

Run-of-mine Raw material as it exists in the mine of average grade, size, or quality;

Sewage Sewage as defined in Manitoba Regulation 83/200 respecting private sewage disposal systems and privies, or any future amendments thereto;

Silt fence A synthetic barrier erected to restrict the movement of u unconsolidated material from a disturbed area to any sensitive area;

Solid waste Solid waste as defined in Manitoba Regulation 150/91 respecting waste disposal grounds, or any future amendments thereto;

Standard Methods for the Examination of Water and Wastewater

The most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation;

Suspended solids

Particulate matter, such as silt or clay that is entrained within a water column (i.e., has not settled to the substrate);

Tailings Ore that has been ground up and remains after most of the recoverable valuable minerals have been extracted;

Thickener A large, round tank used for settling and separation of solids from liquids by gravity, where clear fluid overflows from the tank and solid particles sink to the bottom;

Toxic substance Pollutants that have particularly adverse and long-lasting impacts on the environment and human health;

Trommel A heavy-duty circular screen attached to the discharge end of a grinding mill for washing and removing larger rocks and tramp materials;

Waste Barren rock in a mine, or mineralized material that is too low in grade to be mined and processed at a profit.