Appendix 2:
GLOSSARY OF TERMS

Accreditation	Formal recognition of the competence of an environmental analytical laboratory to carry out specified tests. Formal recognition is based on an evaluation of laboratory capability and performance; site inspections are utilized in the evaluation of capability. Accreditation for analytical laboratories is issued by the Standards Council of Canada (SCC) or the Canadian Association for Laboratory Accreditation Inc. (CALA).
Acid-Base Accounting (ABA)	A set of tests applied to mine wastes and geologic materials that determines the potential acidity versus the neutralization potential. It is used to predict the potential of a material to generate acid.
Acid Potential (AP)	The amount of acidity that rock or geologic material can produce if sulfur forms are completely oxidized.
Acid Rock Drainage (ARD)	A low pH, metal-laden, sulfate-rich drainage that occurs during oxidation of sulfur or metal sulfides under atmospheric conditions. It forms where the acidity exceeds the alkalinity.
Adverse Effect	An undesirable or harmful effect to an organism, indicated by some result such as mortality, altered food consumption, altered body and organ weights, altered enzyme concentrations or visible pathological changes.
Area of Environmental Concern (AEC)	An area of the environment (soil, groundwater, surface water or sediment) which has been delineated through a Phase II/III ESA where Contaminants of Potential Concern (COPC) concentrations exceed applicable Tier 1 or Tier 2 criteria and/or where environmental exposure to a contaminant is occurring at a rate that creates an adverse effect to human and/or ecological receptors and requires remediation and/or risk management to comply with this Guideline.
Assess or Assessment	Investigations, monitoring, testing and other information-gathering activities to identify: (1) the existence, source, nature and extent of contamination resulting from a discharge into the environment of a hazardous material or chemical substance; and (2) the extent of danger to the public health, safety, welfare and the environment. The term also includes studies, services, and investigations to plan, manage and direct assessment, and decommissioning and clean up actions.
Background Concentration	May include the natural concentration of a substance in an environmental medium within a geographic area that does not include any contribution from local anthropogenic point sources (natural background concentration), or the concentration in the surrounding area of a contaminated site as a result of generalized non-point anthropogenic sources (ambient background concentration).
Canadian Council of Ministers of the Environment (CCME)	An intergovernmental forum in Canada for discussion and joint action on environmental issues of national, international and global concern. The 14 member governments work as partners in developing nationally consistent environmental standards and practices.

Chemical	Any element, compound, formulation or mixture of a substance that might enter the environment through spillage, application or discharge.
Clean-up	The removal of a chemical substance or hazardous material from the environment to prevent, minimize or mitigate damage to the public health, safety or welfare, or the environment that may result from the presence of the chemical substance. The clean-up is carried out to attain specified clean up criteria. Also see "remediation".
Closure or Site Closure	Referring to regulatory closure. Upon completion of both remediation and monitoring, or if post-remediation monitoring is not required, a site Closure Report must be prepared by a Qualified Person or Qualified Professional and submitted to ECC for site closure approval. Subject to review and approval, ECC will issue a Closure Letter.
Closure Letter	A letter advising that no further remedial action is required and that the site is no longer classified as a contaminated site.
Closure Report	The final report prepared by the Qualified Person or Qualified Professional and submitted to ECC following successful implementation of a Remedial Action Plan.
Coarse Grained Soil	Material having greater than 50% (by dry weight) particles equal to or greater than 75 microns (200 mesh) in diameter.
Commissioner's Land	Lands in the NWT that have been transferred by Order in Council to the Government of the Northwest Territories (GNWT). This includes highways and block land transfers. Most Commissioner's Land is located within municipalities. Any lands as defined in the *Commissioner's Land Act*.
Concentration	The amount of chemical or substance in a given environmental medium. Concentration is typically expressed in units such as mg/L (in water), mg/kg (in soil, sediment, or food) and mg/m^3 (in air).
Conceptual Site Model (CSM)	A visual representation and written description of the relationships between the physical, chemical and biological processes of a site and the human and environmental receptors.
Contaminant	As defined in the Northwest Territories *Environmental Protection Act*, means any noise, heat, vibration or substance and includes such other substance as the Minister may prescribe that, where discharged into the environment: (a) endangers the health, safety or welfare of persons, (b) interferes or is likely to interfere with normal enjoyment of life or property, (c) endangers the health of animal life, or (d) causes or is likely to cause damage to plant life or to property;
Contaminant of Potential Concern (COPC)	(a) One or more chemicals found on, in or under a property at a concentration that exceeds the applicable criteria for the property and also exceeds the natural background concentration for the chemical or (b) One or more chemicals found on, in or under a property for which no applicable criteria is prescribed and which are associated with a potential adverse effect.
Contaminated Site	Areas of land, water, groundwater, or sediments that have levels of contaminants exceeding the criteria established or adopted in this guideline.

Criteria	Numerical standards that are established or adopted for concentrations of chemicals to determine the acceptability of environmental media at a site based on a specific land use or exposure scenario. Criteria can be established for individual exposure pathways (pathway-specific criteria or Tier 2 criteria). The lowest applicable criteria is used as a benchmark to assess Environmental Site Assessment (ESA) data and is a trigger to enter the Guideline Process (Tier 1). Tier 1 or Tier 2 Criteria may be used as remediation criteria.
Decommissioning	Decommissioning generally refers to the closure of an industrial facility followed by the removal of process equipment, buildings and structures. Decommissioning may include all or part of a facility, and "mothballing". Remediation may be required to remove contamination, or to render the industrial site safe and aesthetically acceptable. Decommissioning may result in a change in land use.
Dense Non-Aqueous Phase Liquids (DNAPL)	Chemicals or mixtures of chemicals that are denser than water at concentrations above water aqueous solubility limits. These chemicals can move vertically through soil and groundwater until encountering a sufficiently resistant layer that will impede further vertical movement and allow the liquid to pool. Chlorinated Volatile Organic Compounds (CVOCs) are an example of a DNAPL.
Discharge	As defined in the Northwest Territories *Environmental Protection Act*, discharge "includes, but not so as to limit the meaning, any pumping, pouring, throwing, dumping, emitting, burning, spraying, spreading, leaking, spilling, or escaping".
Ecological Risk Assessment (ERA)	The process of evaluating the potential adverse effects on non-human organisms, populations or communities in response to human-induced stressors. ERA entails the application of a formal framework, analytical process, or model to estimate the effects of human actions on natural organisms, populations or communities and interprets the significance of those effects in light of the uncertainties identified in each study component (GOC, 2012)
Environment	As defined in the Northwest Territories *Environmental Protection Act*, meaning the components of the Earth and includes: (a) air, land and water; (b) all layers of the atmosphere; (c) all organic and inorganic matter and living organisms; and (d) the interacting natural systems that include components referred to in paragraphs (a) to (c).
Environmental Analytical Laboratory	A laboratory that performs a variety of organic and inorganic chemical analyses on water, freshwater, ground water, drinking water, industrial effluents, sewage and soil.
Environmental Emergency	Generally means a sudden or unexpected incident involving a release of a substance which may result in an immediate or long-term harmful effect on the environment, or constitute a danger to human life or health. It may also include an emergency situation in which there is a release or an impending release of a contaminant in such quantities that mitigation of the release is beyond the capability of the responsible party because the person responsible lacks the resources, is unknown, or is otherwise unwilling or unable to control and manage the release.

Environmental Site Assessment (ESA)	As defined in the Northwest Territories *Environmental Protection Act*, means an independent assessment of a site or the operations on a site to: (a) determine whether the environment is or may be subject to contamination; (b) establish the extent of any contamination; (c) identify the causes of any contamination and identify anything that may cause contamination in the future; (d) identify ways to repair or remedy any injury or damage to the environment resulting from contamination; and (e) identify ways to prevent future contamination.
Exposure	Any contact with or ingestion, inhalation or assimilation of a chemical substance.
Fine Grained Soil	Material having greater than 50% (by dry weight) particles equal to or less than 75 microns (200 mesh) in diameter.
Fraction of Organic Carbon (Foc)	The fraction of the soil made up of organic carbon matter. The higher the Foc, the greater the ability of the soil to adsorb organic contaminants.
Free Product	A chemical substance or product that is present as a separate, observable, or measurable non-aqueous phase liquid (NAPL) (light - LNAPL or dense - DNAPL). Free product may be mobile or immobile.
Groundwater	All subsurface water that occurs beneath the water table in rocks and geologic formations that are fully saturated.
Guideline Process	The ECC management process for the remediation of contaminated sites which fall under the jurisdiction of ECC as outlined in this document and summarized in the process flowchart (Figure 1).
Guidelines	Statements outlining a method, procedure, process or numerical value which, while not mandatory, should be followed unless there is a justifiable reason not to do so, and includes the numerical limits or narrative statements that are recommended to protect and maintain the specified uses of water, sediment, soil or air.
Hazardous Material	A material that, including but not limited to, because of its quality, concentration, chemical composition, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety or welfare, or to the environment, when improperly stored, treated, transported, disposed of, used or otherwise managed.
Human Health Risk	The likelihood (or probability) that a given exposure or series of exposures to a hazardous substance will cause adverse health impacts on human receptors experiencing the exposures.
Human Health and Ecological Risk Assessment (HHERA)	Typically required when removal of a contaminant of concern is deemed extremely difficult and/or cost prohibitive. If required, an assessment by a Qualified Professional to determine the nature and probability of adverse health effects on humans (HHRA) and the ecosystem (ERA) if exposed to contaminants identified by the ESAs. HHERA reports must be submitted to the applicable regulatory authority.
Incremental Lifetime Cancer Risk (ILCR)	An upper-bound estimate of the increased cancer risk, expressed as a probability that an individual receptor could expect from exposure over a lifetime; it is a statistical concept and is not dependent on the average residency time in an area.

Inspector	As defined in the Northwest Territories *Environmental Protection Act*, meaning a person appointed under subsection 3(2) and includes the Chief Environmental Protection Officer.
Land Use Permit (LUP)	A permit(s) issued in accordance with the *Mackenzie Valley Resource Management Act* and the Mackenzie Valley Land Use Regulations; and the *Northwest Territories Lands Act* and the Northwest Territories Land Use Regulations.
Light Non-Aqueous Phase Liquids (LNAPL)	Chemicals or mixtures of chemicals that are less dense than water and exist as a separate phase (i.e., at concentrations above solubility limits). LNAPL will float on the top of the groundwater table. Gasoline, diesel, lube oils and similar materials are examples of LNAPLs.
Metal Leaching	Metal concentrations from water in contact with weathered/oxidized Potentially Acid Generating (PAG) material where analysis shows exceedances of CCME Water Quality Guidelines and/or upstream sample results.
Migration	The movement of contaminants in, or emanating from, environmental media due to the influence of natural forces but does not include the relocation of environmental media or substances by a person
Minister	Minister of Environment and Climate Change (ECC).
Monitoring	The routine (i.e., daily, weekly, monthly, quarterly) checking of quality, or collection and reporting of information and includes any post-remediation inspections, monitoring and/or maintenance activities that may be required. Monitoring reports generated need to be submitted to ECC.
Municipal Lands	Lands owned, leased or otherwise held by a municipal corporation. Municipal Lands do not include lands within a community that are owned by an Indigenous Self- Government.
Neutralization Potential (NP)	The amount of alkalinity in rock or soil materials that are capable of neutralizing acid.
Notification Report	A summary report submitted to ECC in a prescribed format containing information about a site where unacceptable contaminant impacts or risks have been identified.
Person	As defined in the Northwest Territories *Environmental Protection Act*, includes the successor, assignee, receiver, purchaser or agent of a corporation.
Phase I ESA	The systematic process, as outlined in CSA Standard Z768-01, by which a Qualified Professional seeks to determine whether a particular property is or may be subject to contamination.
Phase II ESA	The systematic, iterative process, as outlined in CSA Standard Z769-00, by which a Qualified Professional seeks to characterize and/or delineate the concentrations or quantities of chemicals of potential concern related to a site and compare those levels to applicable criteria.
Phase III ESA	Generally considered in the context of a delineation assessment. A complete evaluation of site conditions sufficient to fully characterize the extent and degree of contamination to Tier 1 Criteria and to investigate the feasibility and practicality of remedial options.
Polluter Pays Principle	As described in the Northwest Territories *Environmental Rights Act*, meaning a person who causes an adverse effect on the environment is responsible for taking remedial action, and is to bear the cost of that action.

Potentially Acid Generating (PAG) Rock	Rock that has a risk to generate Acid Rock Drainage (ARD) because acid potential (AP) exceeds or is relatively close to neutralization potential (NP).
Qualified Person (QP)	A person who has an appropriate level of knowledge and experience in all aspects of contaminated site investigation, remediation and management to complete the assessment, remediation and documentation of a minor spill/release. A qualified person may be engaged by a Responsible Party to supervise and document the remediation of smaller spills affecting soil only (e.g., where the contamination has not migrated under the building, off-site properties have not been impacted, the groundwater classified as non-potable and there is no obvious indication of the presence of free product on the groundwater or surface water). A Qualified Person may be a Qualified Professional (QPro).
Qualified Professional (QPro)	A person who leads or supervises the ESA process, is accountable for documentation and quality of work and has an appropriate level of knowledge and experience in all aspects of contaminated site investigation, remediation and management. The QPro will design, direct and document the ESA and remediation activities.
Quality Assurance / Quality Control (QA/QC)	Those procedures and controls designed to monitor the conduct of a study to ensure the quality of the data and the integrity of the study.
Receptor	A person or ecosystem component that is potentially subjected to chemical exposure.
Remedial Action Plan (RAP)	A report that identifies remedial criteria to be applied to the impacted media at a contaminated site. A RAP may also identify remedial options and outlines their feasibility, and recommends and describes a preferred conceptual remediation plan, a performance monitoring plan, and if appropriate, requirements for on-going site management.
Remedial Objective	A numerical limit or narrative statement that has been established to protect and maintain a specified use of water, sediment or soil at a particular site by taking into account site-specific conditions. Objectives may be adopted directly from Tier 1 Criteria or revised or selected to account for Tier 2 site-specific conditions or be derived from a Site Specific Risk Assessment.
Remediation	The removal and/or the treatment of contaminants from a contaminated site to prevent, minimize, or mitigate impacts to human health or the environment. Remediation involves the development and application of a RAP that removes, destroys, contains or otherwise reduces exposure of contaminants to receptors that could be negatively affected. Also see Clean-up.
Responsible Party (RP)	May include: • any person causing, permitting or contributing to the discharge of a contaminant; • any person in management or control of a contaminant before its discharge; and • owner of the land or the last person to own or occupy the land where contamination is identified.
Risk	Risk is a measure of both the severity of health effects arising from exposure to a contaminant and the probability of its occurrence.

Risk Assessment	Procedure designed to determine the qualitative aspects of hazard identification and usually a quantitative determination of the level of risk based on deterministic or probabilistic techniques.
Risk Management Plan (RMP)	Provides management option(s) that allow for a tailored approach, considering containment and/or monitoring requirements to limit exposure risk at a Contaminated Site.
Site-Specific Remedial Criteria	The criteria established for a specific site to be met through the implementation of a RAP or if appropriate, on-going site management through a RMP.
Spill	As defined in the Spill Contingency Planning and Reporting Regulations, means a discharge of a contaminant in contravention of the Northwest Territories *Environmental Protection Act* or regulations made under the *Act* or a permit or licence issued under the *Act* or regulations made under the *Act*.
Smaller Spill (or Minor Spill)	Generally defined as one involving a volume less than the reportable limit prescribed in the Spill Contingency Planning and Reporting Regulations (for hydrocarbons typically <100 L or involves a contaminated soil volume < 10 m^3) and is considered low risk to persons, property or the environment. Minor spills are of short duration and can be quickly contained and cleaned up by the Responsible Party under the supervision of a Qualified Person or Qualified Professional. The extent of the spill area is small and impacted media is limited to soil. Clean-up for a smaller spill will generally be achieved using a Tier 1 Criteria approach.
Substance	As defined in the Northwest Territories *Environmental Protection Act*, means any solid, liquid, gas, odour or organism or combination of any of them.
Subsurface Soil (Subsoil)	Unconsolidated regolith material above the water table not subject to soil forming processes. Nominally includes vadose zone materials below a depth of 1.5 m.
Surface Soil	Unconsolidated regolith material near the ground surface. Nominally includes topsoil and vadose zone materials to a depth of 1.5 m.
Surface Water	Natural water bodies, such as rivers, streams, brooks and lakes, as well as artificial water courses, such as irrigation, industrial and navigational canals, in direct contact with the atmosphere.
Territorial Lands	Any lands as defined in the *Northwest Territories Lands Act*.
Test Pit	A shallow pit made to characterize physical or chemical conditions of surface or subsurface soil.
Tier 1 Criteria Approach	The identification of potential risk by comparing detected concentrations of COPCs with prescribed Tier 1 Criteria values based on land use. A Responsible Party can remediate to the Tier 1 Criteria appropriate for the current or intended future land use at a contaminated site. When used as the remedial objectives, this approach is generally conservative in protecting human health, safety and the environment and enables sale or alternate use of the site with minimum future liability.
Tier 2 Criteria Approach	The identification of potential risk by comparing detected concentrations of COPCs with either modified Tier 1, or pathway specific criteria values (Tier 2) based on applicable exposure pathways. These values are determined by calculating the potential adverse effects associated with exposure to contaminants at those concentrations, on a site-specific basis. Conditions that would be acceptable for the site can then be identified.

Water Licence	A licence required as per the Northwest Territories Waters Regulations.