

## GLOSSARY

°C	The symbol for degree Celsius.
<	The symbol for less than.
>	The symbol for greater than.
%	The symbol for percent.
µeq/L	The symbol for microequivalents per litre.
µg/g	The symbol for micrograms per gram.
µg/L	The symbol for micrograms per litre.
µs/cm	The symbol for microseconds per centimetre.
µS/cm	The symbol for microSiemens per centimetre.
<b>acid neutralizing capacity</b>	A measure of water's capacity to neutralize an acid, providing an indication of the sensitivity of water to acid deposition.
<b>active layer</b>	The zone of seasonal freeze and thaw above the permafrost. This zone is thin and usually freezes in winter and thaws in summer.
<b>adverse effect</b>	The impairment of, or damage to, the environment or health of humans, or damage to property, or loss of reasonable enjoyment of life or property.
<b>alkalinity</b>	The total quantity of base in water that can be determined by titration with a strong acid.
<b>alkane</b>	Any of a series of saturated aliphatic hydrocarbons with the general formula $C_nH_{2n+2}$ , e.g., methane, ethane and propane.
<b>alluvial</b>	Pertaining to, or consisting of, alluvium, or deposited by flowing water.
<b>alluvium</b>	Unconsolidated mineral material, usually clay, sand, silt and gravel, deposited by flowing water.
<b>analytical detection limit</b>	The lowest concentration of a chemical that can be detected using a standard laboratory analysis method.

GLOSSARY

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<b>ANC</b>	The abbreviation for acid neutralizing capacity.
<b>anchor field</b>	The three natural-gas fields, Taglu, Parsons Lake and Niglintgak, whose production will provide the initial volume of gas shipped in the Mackenzie Valley Pipeline.
<b>anion</b>	An atom, group of atoms, or compound that has a negative electrical charge.
<b>anticline</b>	Rock layers folded in the shape of an arch. Anticlines sometimes trap oil and gas.
<b>apparent colour</b>	A measure of colour in unfiltered water, influenced by the suspended material in the water sample.
<b>aquatic</b>	Growing in, living in, or frequenting water. Also, occurring or situated in or on water.
<b>aquifer</b>	A water-saturated, permeable body of rock capable of storing and transmitting groundwater to wells and springs under ordinary hydraulic gradients.
<b>artesian</b>	Referring to groundwater confined under hydrostatic pressure.
<b>ASTIS</b>	The abbreviation for Arctic Science and Technology Information System.
<b>auger</b>	A screw-like boring tool designed for use in relatively unconsolidated near-surface materials.
<b>avulsion</b>	A sudden change in the course of a stream by which a portion of land is cut off, as where a stream cuts across and forms an oxbow.
<b>bankfull stage</b>	The flow stage of a river in which the stream completely fills its channel and the elevation of the water surface coincides with the bank margins.
<b>baseflow</b>	The part of stream flow that is made up entirely of groundwater input.
<b>baseline</b>	A surveyed condition that serves as a reference point to which later surveys are coordinated or correlated.

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<b>baseline information</b>	The current state of the environment or environmental setting for a particular element. This information will help to determine potential environmental effects of a project by providing an environmental reference point for the element, with which to compare future environmental conditions and potential project effects.
<b>bathymetry</b>	The science of measuring ocean depths or the depths of large channels in order to determine the bed topography.
<b>bedding plane</b>	A planar or near planar surface that visibly separates a layer of stratified rock from the preceding or following layer.
<b>bedrock</b>	Solid rock that underlies soil or any other unconsolidated surficial cover.
<b>biophysical environment</b>	The components of the earth including: <ul style="list-style-type: none"><li>• land, water and air, including all layers of the atmosphere</li><li>• all organic and inorganic matter and living organisms</li><li>• the interacting natural systems that include components referred to in the previous bullets</li></ul>
<b>bog</b>	Waterlogged, spongy ground consisting primarily of mosses that can decay and develop into peat.
<b>borrow site</b>	An area that could be excavated to provide material, such as gravel or sand, to be used as fill elsewhere.
<b>calcareous</b>	Containing calcium or magnesium carbonate.
<b>candle ice</b>	Ice that has deteriorated into untapered, candle-like icicles before breaking up.
<b>carbonate rock</b>	A sedimentary rock, such as limestone or dolomite, consisting mainly of carbonate minerals.
<b>cation</b>	An atom, group of atoms, or compound that has a positive electrical charge.
<b>CCME</b>	The abbreviation for Canadian Council of Ministers of the Environment.

<b>chlorophyll <i>a</i></b>	The photosynthetic pigment found in higher plants and algae. The concentration of chlorophyll <i>a</i> is used to estimate the amount of algae in surface water.
<b>chronic aquatic life guideline</b>	A narrative statement or concentration of a chemical in surface water, below which there is negligible risk of sub-lethal effects to biota, their functioning, or any interactions that are critical to sustaining ecosystem health.
<b>closed depression</b>	A topographically low area with no surface water outlet, from which accumulated water leaves via ground infiltration.
<b>closed talik</b>	Unfrozen ground that is completely surrounded by permafrost.
<b>coarse sediments</b>	Sediments composed of sand and larger particles.
<b>colour</b>	When referring to water, the measure of the amount of humic material, i.e., dark-coloured organic material.
<b>composite sample</b>	A sample that consists of a number of individual grab samples. Composite samples are collected to provide an average measurement of water quality within an area or over a period.
<b>compressor station</b>	A facility containing equipment that is used to increase pressure to compress natural gas for transportation.
<b>conductance</b>	The measure of electrical conductance in a water sample. Conductance is an indicator of salinity.
<b>conductivity</b>	A measure of the ability of material to carry an electrical current.
<b>Construction Phase</b>	The phase of a project preceding the Operations Phase, during which project facilities and infrastructure are assembled and installed on their foundations, and connected and tested to ensure that they operate as designed.
<b>creep</b>	A slow, imperceptible downward movement of slope-forming rock or soil under shear stress.
<b>Cretaceous</b>	The geological period between about 144 and 65 million years before present.
<b>CRLE</b>	The abbreviation for complementary relationship lake evaporation.

<b>DDT</b>	The abbreviation for dichloro diphenyl trichloroethane.
<b>deltaic fluviatile</b>	Referring to river-deposited silt, sand and gravel from a delta formation.
<b>detachment slide</b>	The movement of the active layer down a sloped surface caused by permafrost in the active layer melting, allowing the layer to detach and slide down the failure surface.
<b>Devonian</b>	The geological period between about 408 and 360 million years ago.
<b>DFO</b>	The abbreviation for Department of Fisheries and Oceans.
<b>discharge</b>	The rate of flow at a given moment, expressed as volume per unit of time.
<b>discontinuous permafrost</b>	A zone of permafrost containing patches of unfrozen ground, such as beneath large rivers and lakes.
<b>dissolution</b>	A process of chemical weathering whereby mineral and rock material passes into solution, e.g., calcium carbonate being removed from limestone.
<b>dissolved organic carbon</b>	A measure of the amount of organic carbon dissolved in water. Dissolved organic carbon is an indicator of the amount of humic material in surface waters.
<b>dissolved oxygen</b>	A measure of the amount of oxygen dissolved in water. Dissolved oxygen concentration provides an indication of the suitability of surface waters for aquatic life
<b>DO</b>	The abbreviation for dissolved oxygen.
<b>DOC</b>	The abbreviation for dissolved organic carbon.
<b>DOE</b>	The abbreviation for Department of Environment (Environment Canada).
<b>dolomite</b>	A carbonate mineral with a composition of $\text{CaMg}(\text{CO}_3)_2$ .
<b>dolomite rock</b>	A rock whose carbonate fraction consists of more than 50% dolomite.

<b>drainage basin</b>	An area in which surface runoff collects and from which it is carried by a drainage system, such as a river and its tributaries.
<b>drinking water guideline</b>	Concentration of a chemical in surface water, below which there is negligible risk to human health or aesthetic considerations related to the use of water for drinking.
<b>dynamic breakup</b>	An ice jam of fragmented ice on a river, caused by a quick rise in water level or flow and the resultant load causing downstream ice cover to fail.
<b>EIFAC</b>	The abbreviation for European Inland Fisheries Advisory Commission.
<b>EIS</b>	The abbreviation for Environmental Impact Statement.
<b>Enbridge</b>	The abbreviation for Enbridge Inc.
<b>environmental effect</b>	<p>For a project, any change that the project might cause in the environment, including any change it might cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as defined in the <i>Species at Risk Act</i>. Also, any effect of any project-induced change on:</p> <ul style="list-style-type: none"><li>• health and socio-economic conditions</li><li>• physical and cultural heritage</li><li>• the current use of lands and resources for traditional purposes by aboriginal people</li><li>• any structure, site or thing that is of historical, archaeological, paleontological or architectural significance</li></ul> <p>Also, any change to the project that might be caused by the environment.</p>
<b>EPA</b>	The abbreviation for the United States Environmental Protection Agency.
<b>ephemeral drainage</b>	Drainage that only occurs for a short time, usually after periods of rainfall or snowmelt, and that discontinues during dry seasons.
<b>epilimnion</b>	The upper part of the water column where water temperature is close to uniform.

<b>estuarine</b>	Referring to a semi-enclosed coastal body of water, subject to tidal action, where sea water and fresh water mix.
<b>euphotic zone</b>	The upper part of the water column where light is sufficient for algal photosynthesis.
<b>eutrophic</b>	Referring to nutrient-rich lakes and rivers.
<b>evaporite</b>	A nonclastic sedimentary rock composed primarily of minerals produced from saline solution, as a result of total evaporation of the solvent. Rock salt, i.e., halite, gypsum, and anhydrite are the most common evaporates.
<b>facilities</b>	Structures of the gathering and pipeline systems, including compressor and pump stations, block valves, pigging facilities, heater stations and meter stations.
<b>fen</b>	Low lands, such as peat land, that are wholly or partly covered by water, especially in the upper regions of old estuaries and around lakes. These areas do not drain naturally.
<b>fetch</b>	An area of the sea surface or a large waterbody, such as a lake, over which waves are generated by a wind having a constant speed and direction.
<b>field blank</b>	Sample consisting of laboratory-provided distilled, deionized water, which is submitted to the analytical laboratory to test for potential contamination during field sampling or analytical errors.
<b>fine sediment</b>	Sediment comprising silts and clays, consisting of particles less than 62 µm in diameter.
<b>fracture</b>	Any break in a rock, including joints, cracks and faults.
<b>frazil</b>	Ice crystals that form in supercooled water that is too turbulent to permit coagulation of the crystals into sheet ice. Frazil ice is a spongy or slushy accumulation of frazil.
<b>freshet</b>	Rapid temporary rise in stream discharge and water level, caused by heavy rains or rapid melting of snow and ice.
<b>friable</b>	Easily crumbled or reduced to powder.
<b>frost bulb</b>	A frozen zone, typically formed around a chilled pipe, in otherwise unfrozen ground.

<b>frost heave</b>	The uneven lifting or upward movement as a result of internal frost action from subsurface freezing of water and growth of ice lenses or masses.
<b>gas pipeline</b>	The pipeline that transports compressed natural gas from the Inuvik area facility to the southern terminus near the Northwest Territories–Alberta boundary.
<b>gathering pipelines</b>	Four pipelines, also known as laterals, that transport natural gas and NGLs from the anchor fields to the Inuvik area facility. These include the Niglintgak lateral, Taglu lateral, Parsons Lake lateral and Storm Hills lateral.
<b>gathering system</b>	A system of pipelines, compressor stations and other related facilities that gather natural gas and associated NGLs from the anchor fields and transport it to the gas pipeline system located at the Inuvik area facility.
<b>geographic extent</b>	Describes the size of area within which an effect occurs.
<b>glacial drift</b>	Unconsolidated rock debris transported from one place and deposited in another by a glacier.
<b>glaciofluvial material</b>	Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice.
<b>grab sample</b>	A sample collected from a single location during a single sampling event.
<b>groundwater</b>	The water within the earth that supplies wells and springs.
<b>habitat</b>	The places or environment in which a plant or animal naturally or normally lives or grows.
<b>halite</b>	The mineral sodium chloride, NaCl, which is native salt.
<b>halocline</b>	A zone in the water column where the vertical change in salinity is relatively sharp.
<b>hardness</b>	A measure of the amount of alkaline earth compounds, such as calcium and magnesium, dissolved in water.
<b>HCB</b>	The abbreviation for hexachlorobenzene.
<b>HCH</b>	The abbreviation for hexachlorocyclohexane.

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<b>headwater</b>	The source and upper part of a stream or river.
<b>high-closure lake</b>	Unconnected lake that is not flooded annually during the spring.
<b>human health</b>	A state of complete physical, mental and social well-being, and the ability to adapt to the stresses of daily life. It is not merely the absence of disease or infirmity.
<b>humic</b>	Referring to material from the humus portion of soil, which is the dark, relatively stable organic part, so well decomposed that the original sources cannot be identified.
<b>hydraulic gradient</b>	In an aquifer, the rate of change of pressure head per unit of distance of flow at a given point and in a given direction.
<b>hydrodynamic circulation</b>	Horizontal and vertical circulation of surface water in a waterbody.
<b>hydrogeology</b>	The science dealing with groundwater, including its properties and role in modifying the earth, primarily by erosion and deposition
<b>hydrology</b>	The science dealing with the waters of the earth, including their properties, circulation, distribution and reaction with the environment.
<b>hydrostatic pressure</b>	The pressure from the weight of the fluid above it, at a point in a fluid at rest. Also known as gravitational pressure.
<b>hydrostatic test</b>	A test of the strength and leak-resistance of a vessel, pipe, or other hollow equipment by internal pressurization with a test liquid. Also known as a hydrotest.
<b>hypereutrophic</b>	Referring to lakes and rivers with very high levels of nutrients.
<b>icing</b>	A mass or sheet of ice formed on the ground surface during the winter by successive freezing of sheets of water that seep either from the ground, a river or a spring.
<b>INAC</b>	The abbreviation for the federal department of Indian and Northern Affairs Canada.

<b>infrastructure</b>	Basic facilities, such as transportation, communications, power supplies and buildings, which enable an organization, project or community to function.
<b>intrapermafrost groundwater</b>	Groundwater that occurs in unfrozen ground within permafrost.
<b>joint</b>	A fracture that crosses a rock, without any discernible displacement of one side of the fracture relative to the other.
<b>karst</b>	The formation of features by the solutional, and sometimes mechanical, action of water in a region of limestone, gypsum or other bedrock.
<b>karst landscape</b>	The landscape surface that forms over limestone, dolomite or gypsum and is characterized by sinkholes, caves and underground drainage.
<b>km</b>	The metric symbol for kilometre.
<b>km<sup>2</sup></b>	The metric symbol for square kilometres.
<b>L/min</b>	The metric symbol for litres per minute.
<b>L/s</b>	The metric symbol for litres per second.
<b>lacustrine deposits</b>	Sediments laid down in lakes.
<b>laminar flow</b>	Streamline flow of an incompressible, viscous Newtonian fluid, all particles of the fluid moving in distinct and separate lines.
<b>lateral</b>	A pipe that branches away from the central and primary part of the system.
<b>limestone</b>	A sedimentary rock composed mainly of calcium carbonate (CaCO <sub>3</sub> ), principally in the form of calcite.
<b>limiting factor</b>	Anything that has a measurable controlling effect on a species' growth or expansion, or on a biophysical element's continued capability to support its ecosystem.
<b>low-closure lake</b>	Lake that is cut off from a river for a period each summer, but is flooded annually in the spring.
<b>L/s</b>	The metric symbol for litres per second.

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<b>LSA</b>	The abbreviation for local study area.
<b>m</b>	The metric symbol for metres.
<b>m<sup>3</sup>/s</b>	The metric symbol for cubic metres per second.
<b>macrophyte</b>	A macroscopic plant, especially one in an aquatic habitat.
<b>macroscopic</b>	Large enough to be observed by the naked eye.
<b>major ion</b>	Dissolved elements that are abundant in surface and ground waters. Major ions that are common in freshwater include bicarbonate, calcium, carbonate, chloride, magnesium, potassium, sodium, sulphate and sulphide.
<b>mesoeutrophic</b>	Refers to a waterbody defined by a moderate to high level of nutrients.
<b>mesotrophic</b>	Refers to a waterbody with a moderate level of nutrients, i.e., sustaining a moderate abundance of algae.
<b>mg/L</b>	The metric symbol for milligrams per litre.
<b>mineral spring</b>	A spring whose water contains enough mineral matter to give it a definite taste, compared to ordinary drinking water.
<b>mm</b>	The metric symbol for millimetre.
<b>molecular weight</b>	The sum of the atomic weights of all the atoms in a molecule.
<b>monitoring</b>	Resolving specific outstanding environmental issues, observing the potential environmental effects of a project, assessing the effectiveness of mitigation measures undertaken, identifying unexpected environmental issues and determining the action required based on the result of these activities.
<b>moraine</b>	An accumulation of glacial drift deposited by a glacier.
<b>MSL</b>	The abbreviation for mean sea level.
<b>muskeg</b>	A peat bog or tussock meadow, with variably woody vegetation, often occurring in areas of permafrost.
<b>natural gas</b>	A compressible mixture of hydrocarbons with a low specific gravity that occurs naturally in a gaseous form.

<b>natural gas liquid</b>	Hydrocarbons that are gaseous in the reservoir, but that will separate out in liquid form at the pressures and temperatures at which separators normally operate. The liquids consist of varying proportions of butane, propane, pentane and heavier fractions, with little or no methane or ethane.
<b>nephelometric turbidity unit</b>	Measure of how much light is scattered by suspended particles in water, i.e., low NTU values indicate high water clarity.
<b>nephelometry</b>	A technique in which the intensity of light scattered by a suspension is measured to determine the concentration of suspended particles, i.e., used to measure cloudiness or turbidity.
<b>NGL</b>	The abbreviation for natural gas liquid.
<b>NGL pipeline</b>	The pipeline connecting the Inuvik area facility with the Enbridge Pipeline facilities at Norman Wells.
<b>NGTL</b>	The abbreviation for NOVA Gas Transmission Ltd.
<b>NGTL interconnect facility</b>	The southernmost point of the gas pipeline where it connects either directly with the natural gas pipeline system in northwestern Alberta or to a third-party extension that subsequently connects to the existing system.
<b>Niglintgak</b>	The anchor field to be developed by Shell. The field includes three well pads, one gas conditioning facility, flow lines and supporting infrastructure. The gas conditioning facility might be barge or land based.
<b>Niglintgak lateral</b>	The gathering pipeline connecting the Niglintgak gas conditioning facility to a connection point on the Taglu lateral at the outlet of the Taglu gas conditioning facility.
<b>no-closure lake</b>	Lake that is flooded for the entire summer by a river.
<b>nonclastic</b>	Referring to the texture of a sedimentary rock that formed chemically or organically and shows no evidence of being derived from a pre-existing rock or by mechanical deposition.
<b>NTS</b>	The abbreviation for the National Topographic System.
<b>NTU</b>	The abbreviation for nephelometric turbidity unit.

<b>oligotrophic</b>	Refers to a waterbody that contains low levels of nutrients, i.e., sustains a low level of algae.
<b>open talik</b>	Unfrozen ground beneath a surface waterbody.
<b>Operations Phase</b>	The phase of a project during which the pipeline and associated facilities are operated.
<b>Ordovician</b>	The geological period between 500 and 440 million before present.
<b>organic compound</b>	A chemical compound consisting of carbon chains or rings, except for carbon dioxide and carbonates, and also containing hydrogen with or without oxygen, nitrogen or other elements.
<b>organic deposit</b>	A layer of soil that contains plant and animal residue in various stages of decomposition.
<b>outflow</b>	The amount of water flowing out, e.g., groundwater seepage and stream water flowing out of a drainage basin.
<b>PAH</b>	The abbreviation for polycyclic aromatic hydrocarbon.
<b>Parsons Lake</b>	The anchor field to be developed by ConocoPhillips and ExxonMobil. Initially, the field will consist of a north pad for the well sites and gas conditioning facility. A second well pad will be developed five to 10 years after the north pad.
<b>Parsons Lake lateral</b>	The gathering pipeline connecting the Parsons Lake gas conditioning facility to a connection point at the Storm Hills pigging facility.
<b>patterned ground</b>	Topographic features formed by ground ice melting in the upper part of the permafrost layer.
<b>PCB</b>	The abbreviation for polychlorinated biphenyls.
<b>PEL</b>	The abbreviation for probable effects level.
<b>percolate</b>	The process of water oozing, seeping or filtering through soil without a definite channel or course.
<b>perennial spring</b>	A spring that flows during all seasons of the year.

<b>permafrost</b>	Perennially frozen ground, occurring wherever the ground temperature remains below 0°C for two or more consecutive years.
<b>permeable</b>	Relating to porous rock, sediment or soil being able to transmit a fluid. Also known as pervious.
<b>pervious</b>	Relating to porous rock, sediment or soil being able to transmit a fluid. Also known as permeable.
<b>pH</b>	A measure of the relative acidity or alkalinity of a liquid. The pH scale ranges from one to 14, with seven being neutral, one being the most acidic and 14 the most alkaline.
<b>phenol</b>	Organic compounds released by plants, decaying vegetation and some human activities. Human sources of phenols include coal and wood distilleries, oil refineries, chemical plants, and animal and human wastes.
<b>photosynthesis</b>	A biochemical process by which the energy of light is converted into chemical energy, e.g., carbohydrates and oxygen, in plants, algae and certain bacteria.
<b>physiographic region</b>	An area that has similar geological structure and climate and whose pattern of topographic relief and landforms differs from that of adjacent regions.
<b>pingo</b>	An ice-cored hill, forced up by frost heaving hydrostatic pressure in an area underlain by permafrost. It usually forms in drained or partially drained lake basins.
<b>pipeline</b>	A line used for transmitting oil, gas or any other commodity and that connects a province with any other province or provinces or extends beyond the limits of a province or the offshore area as defined in section 123 of the <i>National Energy Board Act</i> .
<b>pipeline corridor</b>	The 1-km-wide area that generally centres on the combined right-of-way for the NGL and gas pipelines, from the Inuvik area facility to the southern terminus.
<b>planform</b>	A body of water's outline or morphology as defined by the still water line.

<b>polychlorinated biphenyl</b>	Refers to mixtures of synthetic organic chemicals that come in various forms, including oily liquids, solids and hard resins. These chemicals were commonly used as a coolant in transformers before their use was banned.
<b>polycyclic aromatic hydrocarbons</b>	An organic compound containing only hydrogen and carbon, consisting of multiple six-carbon rings. They are a product of incomplete combustion of organic materials, such as wood or fossil fuels.
<b>polynya</b>	An area of patchy open water surrounded by ice.
<b>pore pressure</b>	The stress transmitted by the fluid that fills the void between particles of a soil or rock.
<b>porous</b>	Referring to rock that has numerous openings or spaces.
<b>preglacial</b>	Referring to the time before a period of glaciation.
<b>production area</b>	The area that encompasses all project components located north of the Inuvik area facility, including Niglintgak, Taglu and Parsons Lake, the gathering pipelines, facilities, infrastructure, and the 1-km-wide area surrounding each of these project components.
<b>project, the</b>	The abbreviation for the Mackenzie Gas Project.
<b>pycnocline</b>	A water depth zone having a marked change in water density as a function of water depth.
<b>Quaternary</b>	The geological time period that started two to three million years ago and extends to the present.
<b>recharge</b>	The processes involved in the absorption and addition of water to the zone of saturation. Also refers to the amount of water added.
<b>reconnaissance</b>	A high-level biophysical survey that does not include a detailed sample regime.
<b>relict</b>	Referring to a topographic feature that remains after other parts of the feature have been removed or have disappeared.
<b>reservoir</b>	A subsurface, porous, permeable rock body that contains a natural accumulation of oil or gas or both.

GLOSSARY

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<b>right-of-way</b>	The strip of land a company has acquired, for which it has obtained the rights to construct and operate a pipeline.
<b>RSA</b>	The abbreviation for regional study area.
<b>salinity</b>	A measure of the quantity of dissolved solids in water.
<b>scour</b>	Localized erosion of substrate from the streambed by flowing water, when water velocity is high.
<b>Secchi depth</b>	The depth to which a Secchi disc can be observed in water, i.e., measure of light penetration.
<b>sediment quality</b>	Refers to the physical, chemical or biological properties of sediments relative to their use or value as an environment for aquatic life.
<b>sedimentary rock</b>	Rock formed by the deposition and lithification of material derived from existing rocks.
<b>seep</b>	A small groundwater discharge that slowly oozes to the surface of the ground or into a stream.
<b>Silurian</b>	The geological time period between about 440 and 400 million years before present.
<b>sinkhole</b>	A closed surface depression in regions of karst topography produced by the subsurface limestone geology or the collapse of cavern roofs.
<b>sinking stream</b>	A stream that loses water to karst-controlled groundwater flow systems, by way of solution channels and fractures.
<b>solution channel</b>	A tubular or planar channel formed by solution in carbonate rocks, usually along joints and bedding planes.
<b>solvent</b>	The part of a solution that is present in the largest amount.
<b>split sample</b>	Sample prepared by collecting a single sample from a given location, and then splitting the sample into two or more sample containers. Split samples are labelled individually and submitted to the analytical laboratory for identical analyses. These samples are used to assess laboratory precision and within-sample variability.

<b>spring freshet</b>	The annual spring increase of flow in streams and rivers in cold climates as a result of melting snow.
<b>Storm Hills lateral</b>	The gathering pipeline connecting the Storm Hills pigging facility to a connection point at the inlet of the Inuvik area facility.
<b>study area</b>	The area within the spatial boundaries of the scope of the environmental and socio-economic effects assessment.
<b>subpermafrost groundwater</b>	Groundwater that occurs below the permafrost layer.
<b>suprapermafrost groundwater</b>	Groundwater that occurs above the permafrost layer.
<b>surficial geology</b>	The composition, structure and origin of uncompacted deposits and soil lying on bedrock or occurring on or near the earth's surface.
<b>swallow hole</b>	A closed depression into which all or part of a stream disappears underground.
<b>Taglu</b>	The anchor field to be developed by Imperial Oil Resources Limited. It consists of one site, which will include the drill sites, gas conditioning facility, flow lines and supporting infrastructure.
<b>Taglu lateral</b>	The gathering pipeline connecting the Taglu gas conditioning facility to a connection point at the Storm Hills pigging facility.
<b>talik</b>	An area of unfrozen ground within a zone of permafrost. Taliks occur beneath major rivers and large lakes, but are not confined to these locations.
<b>talus slope</b>	A steep concave slope formed by an accumulation of loose rock fragments.
<b>TCU</b>	The abbreviation for true colour unit.
<b>TDS</b>	The abbreviation for total dissolved solids.
<b>thalweg</b>	The part of a river with the greatest flow and depth.
<b>thermal breakup</b>	The process of melting of the ice cover.

<b>thermal stratification</b>	The separation of a lake or other waterbody into layers of different temperature, from heating the surface and heat failing to reach the bottom of the waterbody.
<b>through talik</b>	Unfrozen ground that extends underneath large waterbodies down through the permafrost zone.
<b>thrust fault</b>	A rock fault with a dip of 45° or less over much of its extent, on which the hanging wall appears to have moved upward relative to the footwall.
<b>TKN</b>	The abbreviation for total Kjeldahl nitrogen.
<b>TOC</b>	The abbreviation for total organic carbon.
<b>total alkalinity</b>	The quantity and kinds of compounds present in a waterbody that collectively shift the pH to the alkaline side of neutral. This can indicate the kinds of rocks in a drainage basin.
<b>total dissolved solids</b>	A measure of the total concentration of chemicals that are dissolved in water or that are in particulate form smaller than a standard-size filter, i.e., 0.45 microns, in water. These chemicals are usually salts, such as calcium, sodium, chloride and sulphate ions.
<b>total extractable hydrocarbons</b>	Refers to hydrocarbons with weights in the diesel and fuel oil range, i.e., C <sub>11</sub> to C <sub>30</sub> .
<b>total hardness</b>	A measure of the concentration of calcium and magnesium ions in water. Other ions, such as iron and manganese, can also contribute to the hardness of water, but are generally present in much lower concentrations. Waters with high hardness values are referred to as hard, whereas those with low values are soft.
<b>total inorganic carbon</b>	A measure of the dissolved and particulate inorganic carbon, most of which is in the form of carbon dioxide (CO <sub>2</sub> ), and carbonate (CO <sub>3</sub> ) and bicarbonate (HCO <sub>3</sub> ) compounds.
<b>total organic carbon</b>	A measure of dissolved and particulate organic carbon, most of which is derived from humic substances, and partly degraded plant and animal materials.
<b>total phosphorus</b>	A measure of the total concentration of phosphorus in water.

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<b>total recoverable hydrocarbons</b>	A measure of total volatile hydrocarbons and total extractable hydrocarbons, along with heavier carbon compounds.
<b>total suspended solids</b>	A measure of the total concentration of suspended solids in water.
<b>total volatile hydrocarbons</b>	Refers to hydrocarbons with weights in the gasoline range, i.e., C <sub>5</sub> to C <sub>10</sub> .
<b>TP</b>	The abbreviation for total phosphorus.
<b>traditional knowledge</b>	Cultural knowledge that is based on direct observation or information passed on orally from other community members, developed from centuries of experience of living off the land.
<b>transect</b>	A line or strip across the earth's surface, or through any object, along which a survey or observations are made.
<b>travertine</b>	A dense, finely crystalline limestone that is white, tan or cream in colour.
<b>trip blanks</b>	A sample bottle provided by the analytical laboratory that is pre-filled with de-ionized water and accompanies other sample bottles to and from the field site. The unopened trip blanks undergo the same analysis as the field samples and are used to determine if sample contamination might have occurred during handling and analysis at the laboratory.
<b>trophic classification</b>	Trophic status refers to the availability of nutrients that limit the growth of aquatic plants. Trophic levels are commonly defined by nutrient concentrations, chlorophyll <i>a</i> concentrations or Secchi depths.
<b>true colour</b>	A measure of dissolved colouring compounds in filtered water.
<b>TSS</b>	The abbreviation for total suspended solids.
<b>tufa</b>	A chemical sedimentary rock composed of calcium carbonate, formed by evaporation as a thin encrustation around the mouth of a hot or cold calcareous spring or seep.
<b>turbidity</b>	The relative clarity of a waterbody. A measure of the extent to which light penetration in water is reduced by the presence of suspended particles, such as silt, clay and organic matter.

**GLOSSARY**

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<b>UA</b>	The abbreviation for upper air climate station.
<b>ultra-oligotrophic</b>	Referring to a waterbody that contains very low levels of nutrients, i.e., sustains very low levels of algae.
<b>unconsolidated sediment</b>	Loosely arranged or unstratified sediment with particles not cemented together.
<b>UTM coordinate system</b>	The universal transverse Mercator map projection system.
<b>VC</b>	The abbreviation for valued component.
<b>waterbody</b>	A body of water up to the high-water mark, including canals, reservoirs, oceans and wetlands, but not including sewage or waste treatment lagoons.
<b>watershed</b>	A region or area draining into a particular stream or river.
<b>wetlands</b>	A broad group of wet habitats where the water table is usually at or near the surface, or the land is covered by shallow water.

