

GLOSSARY

°C	The symbol for degrees Celsius.
<	The symbol for less than.
>	The symbol for greater than.
%	The symbol for percent.
µg/m ²	The metric symbol for micrograms per square metre.
µg/m ³	The metric symbol for micrograms per cubic metre.
abandonment and reclamation	The act of permanently stopping operations, removing facilities and restoring land to a productive state.
adverse effect	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.
AENV	The abbreviation for Alberta Environment.
aerosols	Small droplets or particles suspended in the atmosphere, typically containing sulphur. They are usually emitted naturally, e.g., in volcanic eruptions, and as the result of anthropogenic, i.e., human, activities such as burning fossil fuels.
airshed	The geographic area associated with movement of air and emissions. An area over which model predictions are made and within which emissions from different facilities interact. Emissions from one airshed are not considered to interact with emissions from other airsheds.
all-weather road	A paved or unpaved, i.e., gravel, road that is open to traffic all year.
ambient air quality	The quality of any unconfined portion of the atmosphere, open air or surrounding air.
ambient sound	The all-encompassing, background sound associated with a given site, usually a composite of sounds from many sources, near and far, with no particular sound being dominant.
anchor fields	The three natural-gas fields, Niglintgak, Taglu and Parsons Lake, whose production will provide the initial volume of gas shipped in the project pipelines.

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APG	The abbreviation for the Aboriginal Pipeline Group.
attenuation	The reduction of sound intensity by various means, e.g., distance, air absorption, porous materials or engineered noise controls.
A-weighting	Adjusting sound levels measured to account for the frequency content of the measured sound based on a frequency response similar to that heard by the human ear.
baseline	A surveyed condition that serves as a reference point to which later surveys or assessments are coordinated or correlated.
biophysical	Referring to the air, noise, aquatic (groundwater, hydrology, water quality and fisheries) and terrestrial (soils, landforms, permafrost, vegetation and wildlife) conditions in the project area.
borrow site	An area that could be excavated to provide material, such as gravel or sand, to be used, where required, by the project.
BTEX	The abbreviation for benzene, toluene, ethylbenzene and xylene.
CCME	The abbreviation for the Canadian Council for the Ministers of the Environment.
central airshed	A 250 by 375 km area covering the northern part of the pipeline corridor, including the Little Chicago and Norman Wells compressor stations.
climate	The prevailing weather conditions of an area. Climate is a measure of the long-term averages, i.e., normals, of key atmospheric variables, such as temperature, precipitation and wind.
CO	The chemical symbol for carbon monoxide.
compliance monitoring	Monitoring to ensure that: <ul style="list-style-type: none">• the environmental mitigation outlined in the environmental protection and reclamation plans is implemented• work proceeds in compliance with regulations and the proponents' environmental policies
compressor station	A facility containing equipment that is used to increase pressure to compress natural gas for transportation in a pipeline.

Construction Phase	The phase of a project preceding the Operations Phase, during which pipelines, project facilities and infrastructure are assembled and installed, and connected and tested to ensure that they operate as designed.
continuous monitoring	Monitoring using an electronic instrument equipped with a pump.
cumulative effects	Changes to the environment caused by an action, including projects and activities, in combination with other past, present and future human actions.
dB	The abbreviation for decibel.
dBA	The abbreviation for A-weighted decibel.
decibel	The logarithmic unit associated with sound pressure level, sound power level or acceleration level.
decommissioning	The act of taking a processing plant or facility out of service and isolating equipment, to prepare for routine maintenance work, suspending or abandoning.
deposition rate	The amount of material deposited over a given area per unit time.
directivity	In a given direction from a sound source, the difference in decibels between the sound pressure level produced by the source in that direction and the space-average sound level of that source, measured at the same distance.
ECEMP	The abbreviation for Environmental Compliance and Effects Monitoring Plan.
ECO₂	The abbreviation for equivalent carbon dioxide.
EIS	The abbreviation for environmental impact statement.
effects monitoring	Monitoring conducted to: <ul style="list-style-type: none">• confirm the accuracy of predicted effects• determine the effectiveness of mitigation and enhancement measures
energy equivalent sound level	The energy average sound level over a monitoring time interval, which contains the same sound energy as the actual sound occurring during the time interval.
environment	The components of the earth including:

	<ul style="list-style-type: none">• land, water and air, including all layers of the atmosphere• all organic and inorganic matter and living organisms• the interacting natural systems that include components referred to in the previous bullets
environmental effect	For a project, any change that the project might cause in the biophysical environment. Also, any change to the project that might be caused by the environment.
environmental impact assessment	The process of evaluating the biophysical, social and economic effects of a proposed project.
environmental impact statement	A report containing the environmental impact assessment.
equivalent carbon dioxide	The greenhouse gas potential of a compound relative to carbon dioxide.
EUB	The abbreviation for Alberta Energy and Utilities Board.
facilities	Structures of the gathering and gas pipeline systems, including compressor and pump stations, block valves, pigging facilities, heater stations and meter stations.
flaring	Converting hydrocarbon gases to safe compounds by combustion.
fugitive emissions	Emissions released into the atmosphere from any source other than a stack, chimney, vent or other functionally equivalent opening.
gas chromatograph	The instrument used to detect volatile compounds present in laboratory analyses of samples.
gas conditioning facility	A facility located at each anchor field, which collects raw gas from the wells, and dehydrates and conditions the product for transport through the gathering system.
gas pipeline	The proposed gas pipeline that would extend from the Inuvik area facility, parallel to the NGL pipeline along the Mackenzie River to Norman Wells, and continue south to connect to an extension of the existing Alberta system south of the Northwest Territories–Alberta boundary. Also known as the <i>Mackenzie Valley Pipeline</i> .
gathering pipelines	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.

gathering system	A system of pipelines and associated facilities that include four gathering pipelines, the Inuvik area facility, the NGL pipeline and related facilities, such as valves, pig launchers and receivers.
geographic extent	Quantitative measurement of the area within which an effect occurs.
GHG	The abbreviation for greenhouse gas.
GNWT	The abbreviation for the Government of the Northwest Territories.
greenhouse gas	Any of various gases, e.g., CO ₂ , CH ₄ , NO ₂ , that are more transparent to incoming solar radiation than to reflected radiation from the earth and that contribute to the heating of the earth's surface and lower atmosphere.
ha	The metric symbol for hectare.
ice fog	Atmospheric condition of reduced visibility as a result of minute ice crystals suspended in the air.
infrastructure	Basic facilities, such as transportation, communications, power supplies and buildings that enable an organization, project or community to function.
Inuvik area facility	The processing facility to be located near Inuvik where gas and liquids will be processed and separated, then delivered to the gas and NGL pipelines.
inversion	A situation where a layer of warm air is present above cool surface air, trapping emissions near the surface of the earth.
isopleth	A line on a map connecting places registering the same amount or ratio of some phenomenon or phenomena. With respect to noise, it is a line connecting places with equal predicted noise levels.
keq/ha	The metric symbol for kiloequivalents per hectare.
keq/ha/a	The metric symbol for kiloequivalents per hectare per year.
key indicator	A factor used to measure the status of a valued component.
kg/ha/a	The metric symbol for kilograms per hectare per year.
KI	The abbreviation for key indicator.
km	The metric symbol for kilometre.

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km/h	The metric symbol for kilometres per hour.
kt/a	The metric symbol for kilotonnes per year.
lateral	A gathering pipeline that connects the production area facilities to the Inuvik area facility.
L_{eq}	The abbreviation for energy equivalent sound level.
LSA	The abbreviation for local study area.
m	The metric symbol for metre.
m³/d	The metric symbol for cubic metres per day.
Mackenzie Gas Project	A project that will develop three onshore natural gas anchor fields in the Mackenzie Delta and transport natural gas by pipeline to market in northwestern Alberta by 2009. The project comprises the anchor fields, wells, gathering pipelines and associated facilities, work camps, material stockpiling and shipping sites, roads, borrow sites, and other associated infrastructure.
meteorology	The atmospheric character of a region.
mitigation	The elimination, reduction, or control of a project's adverse effects, including restitution for any damage to the environment caused by such effects through avoidance, replacement, restoration, compensation or other means.
monitoring	Periodic inspection to meet the following objectives: <ul style="list-style-type: none">• observe and report on compliance with approval conditions• confirm effectiveness of approved protection measures• verify the accuracy of impact predictions• identify any effects not predicted in the impact assessment
natural gas	A compressible mixture of hydrocarbons with a low specific gravity that occurs naturally in a gaseous form.
NGTL	The abbreviation for NOVA Gas Transmission Ltd.
Niglintgak field	The anchor field to be developed by Shell Canada Limited, which includes three well pads, one gas conditioning facility, flow lines and supporting infrastructure. The gas conditioning facility might be barge-based or land-based.

Niglintgak lateral	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.
noise	Unwanted sound.
noise contour	On a map, a line that represents equal levels of noise exposure, i.e., an isopleth of equal noise levels.
northern airshed	A 150 by 200 km area that includes the production area and the Inuvik area facility.
NRC	The abbreviation for Natural Resources Canada.
Operations Phase	The phase of a project during which the pipeline and associated facilities are operated.
PAI	The abbreviation for potential acid input.
Parsons Lake field	The anchor field to be developed by ConocoPhillips Canada (North) Limited and ExxonMobil Canada Properties. Initially, the field will consist of the 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.
Parsons Lake lateral	The gathering pipeline connecting the Parsons Lake gas conditioning facility to a connection point at the Storm Hills pigging facility.
particulate matter, respirable	Fine particulate matter that is small enough to be breathed deeply into the respiratory tract.
passive monitoring	Monitoring that involves collecting gas or vapour pollutant samples from the atmosphere by diffusion through a static layer or permeation through a membrane.
permafrost	Perennially frozen ground, occurring wherever the ground temperature remains below 0°C for two or more consecutive years.
pig	An in-line scraper, i.e., brush, blade cutter or swab, that is forced through a pipeline by fluid pressure. The pig is used to remove scale, sand, water and other foreign matter from the interior surfaces of the pipe. In hydrostatic testing, the pig is used inside the line to push air ahead of the test water and to push water out after the test.
pig launcher	A facility on a pipeline for inserting and launching a pig

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pig receiver	A piping arrangement whereby an incoming pig can be diverted into a receiving cylinder, isolated and then removed.
pipeline corridor	The 1-km-wide area, defined for the purpose of the EIS biophysical baseline and effects assessment studies, that centres on the combined right-of-way for the gas and NGL pipelines, from the Inuvik area facility to the NGTL interconnect facility in Alberta.
PM	The abbreviation for particulate matter.
PM_{2.5}	Respirable particulate matter with a nominal diameter smaller than 2.5 µm.
potential acid input	The sum of the wet and dry deposition of sulphur and nitrogen compounds that have the potential to contribute to acidification of the receiving environment.
ppm	The abbreviation for parts per million.
precipitation	Any or all of the forms of water particles, whether liquid or solid, that fall from the atmosphere and reach the ground.
production area	The area that encompasses all project components located north of the Inuvik area facility, including Niglintgak, Taglu and Parsons Lake fields, the gathering pipelines and associated facilities, infrastructure, and the 1-km-wide buffer area surrounding each of these project components, defined for the purpose of the EIS biophysical baseline and effects assessment studies.
project, the	The abbreviation for the Mackenzie Gas Project.
project proponents	The five organizations (Imperial Oil Resources Ventures Limited, the APG, ConocoPhillips Canada (North) Limited, Shell Canada Limited and ExxonMobil Canada Properties) that are undertaking the Mackenzie Gas Project.
reclamation	The process of re-establishing a disturbed site to a former or other productive use, not necessarily to the same condition that existed before disturbance. The land capability might be at a level different, i.e., lower or higher, than that which existed before the disturbance, depending on the goal of the process. Reclamation includes the management of a disturbed site and revegetation where necessary.
residual effects	Environmental effects that remain after mitigation. Effects that are present after mitigation is applied.

right-of-way	The pipeline easement in which the pipeline will be installed and operated. The pipeline right-of-way width for the project will vary from 30 to 50 m, depending on pipe size and the number of pipes to be installed in the trench.
RSA	The abbreviation for regional study area.
RWED	The abbreviation for Resources, Wildlife and Economic Development.
sound level	The A-weighted sound pressure level expressed in dBA.
southern airshed	A 300 by 500 km area covering the southern part of the pipeline corridor, including the Blackwater River and Trail River compressor stations, the Trout River heater station and the NGTL interconnect facility.
Storm Hills lateral	The gathering pipeline connecting the Storm Hills pigging facility to a connection point at the inlet of the Inuvik area facility.
study area	The area within the spatial boundaries of the scope of the biophysical environmental effects assessment.
SUMMA sampling method	A method of sampling volatile organic compounds using SUMMA canisters, which are stainless steel containers each fitted with a pressure valve that is opened manually. Ambient air is drawn in by a pump for a set time, e.g., an hour. The valve is then closed and the container is sent to a laboratory for analysis of VOCs.
Taglu field	The anchor field to be developed by Imperial Oil Resources Limited, consisting of one site that includes the well pads, gas conditioning facility, flow lines and supporting infrastructure.
Taglu lateral	The gathering pipeline connecting the Taglu gas conditioning facility to a connection point at the Storm Hills pigging facility.
temperature inversion	A layer in the atmosphere in which temperature increases with altitude.
t/d	The metric symbol for tonnes per day.
TK	The abbreviation for traditional knowledge.
TNRCC	The abbreviation for Texas Natural Resources Conservation Commission.

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traditional knowledge	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.
valued component	Characteristic or feature that represents important environmental conditions identified by assessment specialists, communities or stakeholders.
VC	The abbreviation for valued component.
VOC	The abbreviation for volatile organic compound.
volatile organic compound	Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, methane, ethane, metallic carbides or carbonates, and ammonium carbonate, that evaporates readily and participates in atmospheric photochemical reactions, including the formation of ozone.
weather	The state of the atmosphere at a place and time considering temperature, cloud cover, humidity, wind and precipitation.

