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## GLOSSARY OF TECHNICAL TERMS

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*This glossary contains definitions of certain technical terms used in this Prospectus in connection with our business. These terms and their given meanings may not correspond to industry standard definitions or usage of these terms.*

### TECHNICAL TERMS

“1P”	Proved Reserves
“2P”	Proved plus Probable Reserves
“3P”	Proved plus Probable plus Possible Reserves
“2D”	two-dimensional seismic data, being an interpretive data that allows a view of a vertical cross-section of subsurface strata beneath a prospective area
“3D”	three-dimensional seismic data, being geophysical data that depicts the subsurface strata in three dimensions. 3D seismic data typically provides a more detailed and accurate interpretation of the subsurface strata than 2D seismic data
“acid stimulation”	the treatment of a reservoir formation with a stimulation fluid containing a reactive acid
“API gravity”	American Petroleum Institute gravity, which is a measure of how heavy or light a petroleum liquid is compared to water. If a petroleum liquid’s API gravity is greater than 10 degrees, it is lighter and floats on water; if less than 10 degrees, it is heavier than water and sinks. API gravity is thus a measure of the relative density of a petroleum liquid and the density of water, but it is used to compare the relative densities of petroleum liquids. A higher API gravity indicates a lighter and less dense liquid
“assets”	a resource controlled by an enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise
“barrel”	a unit of volume equal to 42 US gallons
“Best Estimate”	at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate
“CBM”	coal bed methane
“CO <sub>2</sub> ”	carbon dioxide

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“completion”	the installation of permanent equipment for the production of natural gas or oil or, in the case of a dry hole, the reporting of abandonment to the appropriate agency
“condensate”	a low-density, high API gravity liquid hydrocarbon phase that generally occurs in association with the production of natural gas
“Contingent Resources”	quantities of crude oil estimated, as at a given date, to be potentially recoverable from known accumulations but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies
“Cretaceous”	a geological period and system of the Mesozoic era spanning from approximately 145.5 to 65.5 million years ago
“crude oil”	the portion of petroleum that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric conditions of pressure and temperature
“decline curve”	prediction of future oil and gas well production based on past history
“delineation”	determination of the physical boundary of something
“delineation well”	a well that is so closely located to another well penetrating an accumulation of crude oil and natural gas that there is a reasonable expectation that another portion of the accumulation will be penetrated by the first mentioned well. The drilling of the first-mentioned well is necessary in order to determine the physical extent, reserves and commercial value of the accumulation
“developed non-producing Reserves”	Reserves that either have not been on production, or have previously been on production, but are shut in, and the date of resumption of production is unknown
“developed producing Reserves”	Reserves that are expected to be recovered from completion intervals open at the time of the estimate. These Reserves may be currently producing or, if shut in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty

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“development”	the phase in petroleum operations that occurs after exploration has proven successful, and before full-scale production
“development well”	a well drilled inside the established limits of a natural gas and oil reservoir, or in close proximity to the edge of the reservoir, to the depth of a stratigraphic horizon known to be productive
“Devonian”	the geologic period and system of the Paleozoic era spanning from 416 to 359.2 million years ago
“drilling location”	a location identified by the Competent Person in a project associated with a potential accumulation that is sufficiently well defined as a viable drilling target to move a project toward commercial production
“dry well”	a well found to be incapable of producing oil or gas in sufficient quantities to justify completion as a producing oil or gas well
“E&E”	exploration and evaluation
“E&P”	exploration and production
“economic limit”	the limit at the net operating cash flows from a project, which may be an individual well, lease, or entire field, are negative
“EUR” or “estimated ultimate recovery”	an approximation of the quantity of oil or gas that is potentially recoverable or has already been recovered from a reserve or well
“exit production”	the rate of production of oil and/or gas as at the end of the relevant year
“exploration”	the initial phase in petroleum operations that includes generation of a prospect or play or both, and drilling of exploration wells
“frac stimulation”	the abbreviation for hydraulic fracture stimulation, a process whereby fluid and sand particles (suspended in the fluid), are pumped into the well causing the geological formation to crack open (fracture), which creates a better conduit for the reservoir fluids to flow into the well bore

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“field”	a defined geographical area consisting of a single reservoir or multiple reservoirs all grouped on, or related to, the same individual geological structural feature or stratigraphic condition
“formation”	a layer of rock which has distinct characteristics that differ from nearby rock
“geological and geophysical study” or “G&G Study”	a study of available geology and seismic, magnetic, gravity, and log data to learn or evaluate subsurface geology characteristic and hydrocarbon potential.
“GHG”	greenhouse gas
“gross Reserves”	the working interest (operating or non-operating) share before deduction of royalties and without including any royalty interests
“H <sub>2</sub> S”	hydrogen sulfide
“high estimate”	at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the high estimate
“horizontal drilling”	a drilling technique used in certain formations where a well is drilled vertically to a certain depth, after which the drill path builds to 90 degrees until it is in the target formation and continues horizontally for a certain distance
“IP” or “initial production”	the average amount of oil and/or gas produced in the first 24 hours of a well
“Junior Assets”	the oil and gas assets of the Company which are yet to be developed as listed in the section headed “Business — Our Key Assets — Junior Assets” in this Prospectus
“light crude oil”	crude oil normally measured at 30 API gravity or lighter
“low estimate”	at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the low estimate
“LNG”	liquefied natural gas
“LPG”	liquefied petroleum gas
“NGLs”	natural gas liquids

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“OGIP” or “original gas in place”	the total volume of natural gas stored in a reservoir prior to production
“payout”	the point at which all costs of leasing, exploring, drilling and operating have been recovered from production
“permeability”	measure of the ability of a rock to conduct a fluid through its interconnected pores (pore throat) when that fluid is at 100% saturation. A rock may be highly porous and yet impermeable if it has no pore throat. Permeability is measured in millidarcies
“perforating”	the communication tunnel created from the casing or liner into the reservoir formation, through which oil or gas is produced
“PIIP”	quantity of petroleum initially in place that is estimated, as at a given date, to exist in naturally occurring accumulations. It includes that quantity of petroleum that is estimated, as at a given date, to be contained in known accumulations prior to production plus those estimated quantities in accumulations yet to be discovered. It is a measurement derived from an aggregation of the total reserves, contingent resources and prospective resources held by a person whether they are recoverable or unrecoverable
“play”	a group of oil fields or prospects in the same region that are controlled by the same set of geological circumstances
“PNG rights”	the right to produce petroleum and natural gas from the subsurface formation
“Possible Reserves”	those quantities of natural gas and crude oil which by analysis of geosciences and engineering data are less likely to be recoverable than probable reserves
“Probable Reserves”	those quantities of natural gas and crude oil which by analysis of geosciences and engineering data are less likely to be recovered than proved reserves but more certain to be recovered than possible reserves
“producing well”	a well currently in production, or if shut in, previously in production and with reasonable certainty of resumption of production

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“production”	the phase in petroleum operations that occurs after exploration and development phases and during which hydrocarbons are drained from an oil or gas reservoir
“Prospective Resources”	those quantities of natural gas and crude oil estimated, as at a given date, to be potentially recoverable from undiscovered accumulations which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoir and under defined economic conditions, operating methods and government regulations
“Proved Reserves”	those quantities of natural gas and crude oil, which, by analysis of geosciences and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations
“PRMS”	the Petroleum Resources Management System published by the Society of Petroleum Engineers, American Association of Petroleum Geologists, World Petroleum Council, and Society of Petroleum Evaluation Engineers in March 2007, as amended from time to time
“PV10%”	the present value of estimated future net revenues to be generated from the production of Proved Reserves and discounted using an annual discount rate of 10%
“Reserves”	those quantities of natural gas and crude oil anticipated to be commercially recoverable by the application of development projects to known accumulations from a given date forward under defined conditions. Reserves are classified according to the degree of certainty associated with the estimates
“reservoir”	means a porous and permeable underground rock formation containing a natural accumulation of natural gas and crude oil that is confined by impermeable rock or water barriers, is separate from other reservoirs and is characterized by a single pressure system
“Resources”	Contingent Resources and/or Prospective Resources
“saturation”	the fraction or percentage of the pore volume occupied by a specific fluid (e.g. oil, gas, water, etc.)

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“section”	an area of land measuring 1 mile long by 1 mile wide or 640 acres
“seismic”	a method by which the physical attributes in the outer rock shell of the earth are determined by measuring, with a seismograph, the rate of transmission of shock waves through the various rock formations
“seismic data”	detailed information obtained by carrying out seismic work
“solution gas”	natural gas which is dissolved in the reservoir along with crude oil, condensates and water
“Spirit River Group”	a group of formations in WCSB which includes the Wilrich and Mountain Park formations
“surface land package”	a survey plan showing the proposed well location and consultation with confirmation of non objection from nearby parties and notification of other stakeholders, as required under the OGCA, Oil and Gas Conservation Rules and Alberta Energy Regulator Directive 056
“sweet natural gas”	a natural gas that contains no sulfur or sulfur compound at all, or in such small quantities that no processing is necessary for their removal in order that the gas may be sold
“water cut”	the ratio of water produced compared to the volume of total liquids produced from an oil well
“UWID”	Unique Well Identification (UWID) is the standard well identification developed for the Petroleum Industry by Geoscience Data Committee of the Canadian Petroleum Association
“working interest”	a proportional interest in a lease granting its owner the right to explore, develop and produce resources from a property and to receive revenues in proportion to the working interest over the property and incur costs in proportion to the working interest over the property
“WTI”	West Texas Intermediate, a grade of crude oil used as benchmark in oil pricing

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### ABBREVIATIONS

#### Units of Measure

##### Crude Oil and Natural Gas Liquids

Bbls/d or Bbl/d	barrels of oil per day
Bbls or Bbl	barrels of oil or barrel of oil
Boe	barrel of oil equivalent
Boe/d	barrel of oil equivalent per day
C\$/Bbl	Canadian dollars per barrel of oil
C\$/Boe	Canadian dollars per barrel of oil equivalent
Mbbls or Mbbl	thousand barrels
Mboe	thousand barrels of oil equivalent
Mbpd	thousand barrels per day
MMbbls	million barrels of oil
MMbbls/d	million barrels of oil per day
MMboe	million barrels of oil equivalent
MMboe/d	million barrels of oil equivalent per day
US\$/Bbl	US dollars per barrel of oil

##### Natural Gas

Bcf	billion cubic feet
bcm	billion cubic meters
cf	cubic feet
C\$/Mcf	Canadian dollars per thousand cubic feet
C\$/MMbtu	Canadian dollars per million British thermal units
GJ	gigajoule
GJ/d	gigajoules per day
Mcf	thousand cubic feet
Mcf/d	thousand cubic feet per day
Mcfe	thousand cubic feet of gas equivalent
Mcfe/d	thousand cubic feet of gas equivalent per day
MMbtu	million British thermal units
MMcf	million cubic feet
MMcf/d	million cubic feet per day
MMcfe	million cubic feet of gas equivalent
MMcfe/d	million cubic feet of gas equivalent per day
trcf	trillion cubic feet
US\$/MMbtu	US dollars per million British thermal units



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### Other

km	kilometers
km <sup>2</sup>	square kilometers
m	meters
m <sup>3</sup>	cubic meters
mg	milligrams
°C	degrees Celsius

### CONVERSION

#### Conversion Factors — Imperial to Metric

Bbl	×	0.1590	=	cubic meters (m <sup>3</sup> )
Mcf	×	0.0283	=	1.000 cubic meters (10 <sup>3</sup> m <sup>3</sup> )
acres	×	0.4047	=	hectares (ha)
Btu	×	1054.615	=	joules (J)
feet (ft)	×	0.3048	=	meters (m)
miles (mi)	×	1.6093	=	kilometers (km)
pounds (Lb)	×	0.4536	=	kilograms (kg)

*Unless otherwise indicated, gross reserves or gross production are reserves or production attributable to our interests prior to deduction of royalties; net reserves or net production are reserves or production net of such royalties. Gross or net production reported refers to sales volume.*

*The conversion factor from GJ to Mcf is based on the Gross Heating Value obtained from gas sample analysis and calculated at 15°C and 101,325 kPa and moisture and acid gas free. The conversion factor of our Company produced gas is in a range of 1 Mcf = 1.13~1.17 GJ. To simplify this conversion factor, our Company has adopted a conversion factor of 1 Mcf = 1.15 GJ, and 6.9 GJ = 1 Boe.*

*Our Company has adopted the standard of 6.0 Mcf: 1.0 Bbl when converting natural gas to oil equivalent. Condensate and other NGLs are converted to oil equivalent at a ratio of 1.0 Bbl: 1.0 Bbl. They may be misleading, particularly if used in isolation. A Boe conversion ratio of 6 Mcf: 1 Bbl is based roughly on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at our Company's sales point. Given the value ratio based on the current price of oil as compared to natural gas is significantly different from the energy equivalency of 6 Mcf: 1 Bbl, utilizing conversion ratios at 6 Mcf: 1 Bbl, 1 Mcf: 1.15 GJ and 6.9 GJ: 1 Boe may be misleading as an indication of value. For more information, please refer to the sections headed "Forward-looking Statements" and "Risk Factors" in this Prospectus.*