

# PIERIDAE ENERGY LIMITED

# REVISED ANNUAL INFORMATION FORM FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017

June 21, 2018 Revised as of December 5, 2018

Unless indicated otherwise, the information contained in this Annual Information Form is as at December 31, 2017

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#### ABBREVIATIONS AND CONVERSION TABLE

The following are abbreviations of terms used in this Annual Information Form and a conversion table from Imperial to Metric units.

AOF absolute open flow

ARTC Alberta Royalty Tax Credit

Bcf billion cubic feet
boe barrels of oil equivalent
bopd barrels of oil per day
bwpd barrels of water per day

COGE Canadian Oil and Gas Evaluation Handbook

Cr Crown

DCQ daily contract quantity

DFIT diagnostic fracture injection testing

DST drill stem test
DSU drilling spacing unit

FH Freehold

GCA gas cost allowance GOR gas-oil ratio

GORR gross overriding royalty

KB kelly bushing
LNG liquid natural gas
LPG liquid petroleum gas

McfGE thousands of cubic feet of gas equivalent

Mcfpd thousands of cubic feet per day
MPR maximum permissive rate
MRL maximum rate limitation

NC 'new' Crown
NCI net carried interest
NGL natural gas liquids

NI 51-101 National Instrument 51-101
NORR net overriding royalty
NPI net profits interest
OC 'old' Crown

ORRI overriding royalty interest P&NG petroleum and natural gas

PG petroleum and gas

PIIP Petroleum Initially-In-Place
PSU production spacing unit
PVT pressure-volume-temperature
RS underground reservoir

SPE-PRMS Society of Petroleum Engineers - Petroleum Resources Management System

TCGSL TransCanada Gas Services Limited

TVD total vertical deep

UOCR Unit Operating Cost Rates for operating gas cost allowance

WI working interest

Conversion Factors — Imperial to Metric				
barrels (bbl) (@ 60°F) bbl (@ 60°F)	x 0.15898 x 0.15798	= cubic metres (m³) (@ 15°C), water = m³ (@ 15°C), Ethane		
bbl (@ 60°F)	x 0.15873	= m <sup>3</sup> (@ 15°C), Propane		
bbl (@ 60°F)	x 0.15881	$= m^3$ (@ 15°C), Butanes		
bbl (@ 60°F)	x 0.15891	= m <sup>3</sup> (@ 15°C), oil, Pentanes Plus		
thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)	x 28.17399	= m <sup>3</sup> (@ 101.325 kPaa, 15°C)		
Mcf (@ 14.65 psia, 60°F)	x 0.02817399	= 1,000 cubic metres $(10^3 \text{m}^3)$ (@ 101.325 kPaa, 15°C)		
acres	x 0.4046856	= hectares (ha)		
acres	x 4.046856	$= 1,000 \text{ square metres } (10^3 \text{m}^2)$		
acre feet (ac-ft)	x 0.123348	$= 10,000$ cubic metres $(10^4 \text{m}^3)$ (ha.m)		
Mcf/ac-ft (@ 14.65 psia, 60°F)	x 22.841028	= 10 <sup>3</sup> m <sup>3</sup> /m <sup>3</sup> (@ 101.325 kPaa, 15°C)		
Btu	x 1054.615	= joules (J)		
British thermal units per standard cubic foot (Btu/Scf)	x 0.03743222	= megajoules per cubic metre (MJ/m3)		
(@ 14.65 psia, 60°F)		(@ 101.325 kPaa, 15°C)		
\$/Mcf (1,000 Btu gas)	x 0.9482133	= dollars per gigajoule (\$/GJ)		
\$/Mcf (@ 14.65 psia, 60°F) Alta.	x 35.49373	$= \$/10^3 \text{m}^3 \text{ (@ 101.325 kPaa, 15°C)}$		
\$/Mcf (@ 15.025 psia, 60°F), B.C.	x 34.607860	= \$/10 <sup>3</sup> m <sup>3</sup> (@ 101.325 kPaa, 15°C)		
feet (ft)	x 0.3048	= metres (m)		
miles (mi)	x 1.609344	= kilometres (km)		
\$/bb1	x 6.29287	= $\frac{m^3}{\text{(average for 30°-50° API)}}$		
GOR (scf/bbl)	x 0.177295	= gas/oil ratio (GOR) $(m^3/m^3)$		
horsepower	x 0.7456999	= kilowatts (kW)		
psi	x 6.894757	= kilopascals (kPa)		
long tons (LT)	x 1.016047	= tonnes (t)		
pounds (lb)	x 0.453592	= kilograms (kg)		
gallons (Imperial)	x 4.54609	= litres (L) $(.001 \text{ m}^3)$		
gallons (U.S.)	x 3.785412	= litres (L) $(.001 \text{ m}^3)$		
barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia) (C <sub>3</sub> )	x 5.6339198	= cubic metres per million cubic metres $(m^3/10^6m^3)$		
bbl/MMcf (C <sub>4</sub> )	x 5.6367593	$=(m^3/10^6m^3)$		
bbl/MMcf (C <sub>5+</sub> )	x 5.6403087	$=(m^3/10^6m^3)$		
LT/MMcf (sulphur)	x 36.063298	= tonnes per million cubic metres $(t/10^6 \text{m}^3)$		
gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf) (C <sub>5+</sub> )	x 161.3577	= millilitres per cubic metre (mL/m³)		
gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf) (C <sub>5+</sub> )	x 134.3584	$= (mL/m^3)$		
degrees Rankine (°R)	x 0.555556	= Kelvin (K)		
centipoises	x 1.0	= millipascal seconds (mPa.s)		

#### FORWARD LOOKING STATEMENTS

Certain of the statements contained herein including, without limitation, management plans and assessments of future plans and operations, Pieridae Energy Limited's ("Pieridae" or the "Corporation") expected 2018 capital budget, expected timing for spending capital associated with certain joint venture arrangements, Pieridae's future business plan and strategy, Pieridae's criteria for evaluating acquisitions and other opportunities, Pieridae's intentions with respect to future acquisitions and other opportunities, plans and timing for development of undeveloped and probable resources, timing of when the Corporation may be taxable, estimated abandonment and reclamation costs, plans regarding hedging, wells to be drilled, the weighting of commodity expenses, and capital expenditures and the nature of capital expenditures and the timing and method of financing thereof, may constitute "forward-looking statements" or "forward-looking information" within the meaning of Applicable Securities Laws (as defined herein) (collectively "forward-looking statements"). Words such as "may", "will", "should", "could", "anticipate", "believe", "expect", "intend", "plan", "potential", "continue", "shall", "estimate", "expect", "propose", "might", "project", "predict", "forecast" and similar expressions may be used to identify these forward-looking statements. These statements reflect management's current beliefs and are based on information currently available to management.

Forward-looking statements involve significant risk and uncertainties. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements including, but not limited to, risks associated with oil and gas exploration, development, exploitation, production, marketing and transportation, loss of markets, volatility of commodity prices, currency fluctuations, imprecision of resources estimates, environmental risks, competition from other producers, incorrect assessment of the value of acquisitions, failure to realize the anticipated benefits of acquisitions, delays resulting from or inability to obtain required regulatory approvals and ability to access sufficient capital from internal and external sources and the risk factors outlined under "Risk Factors" and elsewhere herein. The recovery and resources estimates of Pieridae's reserves provided herein are estimates only and there is no guarantee that the estimated resources will be recovered. As a consequence, actual results may differ materially from those anticipated in the forward-looking statements.

Forward-looking statements are based on a number of factors and assumptions which have been used to develop such forward-looking statements, but which may prove to be incorrect. Although Pieridae believes that the expectations reflected in such forward-looking statements are reasonable, undue reliance should not be placed on forward-looking statements because Pieridae can give no assurance that such expectations will prove to be correct. In addition to other factors and assumptions which may be identified in this document, assumptions have been made regarding, among other things: the impact of increasing competition; the general stability of the economic and political environment in which Pieridae operates; the timely receipt of any required regulatory approvals; the ability of Pieridae to obtain qualified staff, equipment and services in a timely and cost efficient manner; the ability of the operator of the projects which Pieridae has an interest in, to operate the field in a safe, efficient and effective manner; the ability of Pieridae to obtain financing on acceptable terms; the ability to replace and expand oil and natural gas resources through acquisition, development and exploration; the timing and costs of pipeline, storage and facility construction and expansion and the ability of Pieridae to secure adequate product transportation; future oil and natural gas prices; currency, exchange and interest rates; the regulatory framework regarding royalties, taxes and environmental matters in the jurisdictions in which Pieridae operates; and the ability of Pieridae to successfully market its oil and natural gas products. As of December 31, 2017, no oil or natural gas reserves have been assigned to any of the properties in which Pieridae has an interest.

Readers are cautioned that the foregoing list of factors is not exhaustive. Additional information on these and other factors that could affect Pieridae's operations and financial results are included in reports on file with Canadian securities regulatory authorities and may be accessed through the SEDAR website (www.sedar.com), and at Pieridae's website (www.pieridaeenergy.com). Although the forward-looking statements contained herein are based upon what management believes to be reasonable assumptions, management cannot assure that actual results will be consistent with these forward-looking statements. Investors should not place undue reliance on forward-looking statements. These forward-looking statements are made as of the date hereof and Pieridae assumes no obligation to update or review them to reflect new events or circumstances except as required by Applicable Securities Laws.

Forward-looking statements contained herein concerning the oil and gas industry and Pieridae's general expectations concerning this industry are based on estimates prepared by management using data from publicly available industry sources as well as from reserve reports, market research and industry analysis and on assumptions based on data and knowledge of this industry which Pieridae believes to be reasonable. However, this data is inherently imprecise, although generally indicative of relative market positions, market shares and performance characteristics. While Pieridae is not aware of any misstatements regarding any industry data presented herein, the industry involves risks and uncertainties and is subject to change based on various factors.

# CORPORATE STRUCTURE OF PIERIDAE

#### NAME, ADDRESS AND INCORPORATION

Pétrolia inc. ("**Pétrolia**"), predecessor corporation of Pieridae, was incorporated on January 22, 2002 under the name 9112-6094 Quebec Inc. pursuant to Part 1A of the Companies Act (Quebec). Subsequently, Pétrolia changed its name to Pétrolia Inc. by Articles of Amendment dated September 10, 2002. On October 20, 2004, the 4,326,154 Class A shares issued and outstanding of Pétrolia were subdivided into 5,191,389 Class A shares. On October 21, 2004, Pétrolia filed Articles of Amendment in order to amend its share capital, convert its issued and outstanding shares into common shares and to remove the private company provisions from its Articles.

Pieridae Energy Limited ("Former Pieridae"), the other predecessor corporation of Pieridae, was incorporated on May 29, 2012 pursuant to the Canada Business Corporations Act ("CBCA") and was extra-provincially registered on May 31, 2012 under the Business Corporations Act (Alberta). On October 4, 2012 Pieridae filed Articles of Amendment in order to consolidate the number of its then issued and outstanding common shares into a smaller number of shares on a 5.1282 to 1 basis.

On October 24, 2017, pursuant to a plan of arrangement under the CBCA (the "**Pétrolia Arrangement**"), Former Pieridae and Pétrolia amalgamated and continued as one corporation under the CBCA with the name Pieridae Energy Limited ("**Pieridae**"). Pieridae is a reporting issuer, or the equivalent, in British Columbia, Alberta and Québec. The shares of the Corporation trade on the TSX Venture Exchange under the symbol "PEA". The registered office of Pieridae is located at 1600, 333 7th Avenue SW, Calgary, Alberta T2P 2Z1. The head office of Pieridae is located at 440 – 2nd Avenue S.W., Suite 2400, Calgary, Alberta T2P 5E9 and its operations offices are located at 1718 Argyle Street, Suite 730, Halifax, Nova Scotia B3J 3N6 and 511, Saint-Joseph Street East, 2nd Floor, local 304, Québec City, Québec G1K 3B7.

#### INTERCORPORATE RELATIONSHIPS

The following table describes the intercorporate relationships among Pieridae and its material direct and indirect subsidiaries.

Subsidiary	Jurisdiction of Incorporation or Formation	Percentage of Voting Securities (direct or indirect)
Pieridae Energy (Canada) Ltd.	Federal	99.073%
Goldboro LNG Limited Partnership	Alberta	99%
9290834 Canada Ltd.	Federal	100%
Pieridae Energy (USA) Ltd.	Federal	100%
Goldboro LNG Limited Partnership II	Alberta	100%
Pieridae Production GP Ltd.	Alberta	50%
Pieridae Production Limited Partnership	Alberta	20%
Atlantic Offshore Production Ltd.	Federal	100%
Pieridae Offshore Development Limited Partnership	Alberta	100%
Pieridae Alberta Production Ltd.	Federal	100%
Pieridae Alberta Development Limited Partnership	Alberta	100%
Pieridae Quebec Production Ltd.	Federal	100%
Pieridae Quebec Development Limited Partnership	Alberta	100%
Pétrolia Anticosti Inc.	Quebec	100%

# Pieridae Energy (Canada) Ltd.

Pieridae Energy (Canada) Ltd. ("**Pieridae Canada**") is the sole general partner of Goldboro LNG Limited Partnership. Pieridae Canada was incorporated on February 14, 2012 under the CBCA and was extra-provincially registered under the ABCA on October 3, 2012 and under the Corporations Registration Act (Nova Scotia) on October 5, 2012.

# Goldboro LNG Limited Partnership

Goldboro LNG Limited Partnership ("Goldboro Canada LP") was formed on December 11, 2012 under the Partnership Act (Alberta) for the purposes of developing, constructing and operating the proposed Goldboro LNG Facility to be situated on the Atlantic Ocean coast in the Municipality of the District of Guysborough, Nova Scotia.

# 9290834 Canada Ltd.

9290834 Canada Ltd. ("9290834") was incorporated on May 11, 2015 under the CBCA and was extraprovincially registered on June 4, 2015 under the Corporations Registration Act (Nova Scotia). 9290834, in its capacity as agent and bare trustee of Pieridae Canada and Goldboro Canada LP, holds legal title to the lands on which the proposed Goldboro LNG Facility (as defined below) is being developed and is proposed to be constructed and operated.

# Pieridae Energy (USA) Ltd.

Pieridae Energy (USA) Ltd. ("**Pieridae USA**") is the sole general partner of Goldboro LNG Limited Partnership II. Pieridae USA was incorporated on August 16, 2013 under the CBCA and was extraprovincially registered under the ABCA on August 22, 2013 and under the Corporations Registration Act (Nova Scotia) on November 6, 2013.

#### Goldboro LNG Limited Partnership II

Goldboro LNG Limited Partnership II ("Goldboro USA LP") was formed on September 24, 2013 under the *Partnership Act* (Alberta) for the purposes of procuring long-term natural gas supply from producers in the United States and transporting the natural gas to the proposed Goldboro LNG Facility for sale to Goldboro Canada LP for use as feed gas and fuel in the production of LNG. No such supply agreement has been entered into by Goldboro USA LP with any such producers.

#### Pieridae Production GP Ltd.

Pieridae Production GP Ltd. ("**Production GP**") is the sole general partner of Pieridae Production Limited Partnership. Production GP was incorporated on February 5, 2013 under the ABCA and was extra-provincially registered on March 1, 2013 under the *Business Corporations Act* (New Brunswick).

# Pieridae Production Limited Partnership

Pieridae Production Limited Partnership ("**Production LP**") was formed on February 27, 2013 under the *Partnership Act* (Alberta) for the purposes of acquiring and developing natural gas resource properties in New Brunswick.

#### Atlantic Offshore Production Ltd.

Atlantic Offshore Production Ltd. ("Atlantic Production") is the sole general partner of Pieridae Offshore Development Limited Partnership. Atlantic Production was incorporated on September 23, 2015 under the CBCA and was extra-provincially registered on September 25, 2015 under the ABCA and on September 28, 2015 under the *Companies Act* (Nova Scotia). Atlantic Production is presently inactive.

# Pieridae Offshore Development Limited Partnership

Pieridae Offshore Development Limited Partnership ("Offshore Development LP") was formed on October 20, 2015 under the *Partnership Act* (Alberta) for the purposes of acquiring and developing natural gas resource properties in Nova Scotia and offshore Nova Scotia. Offshore Development LP is presently inactive.

#### Pieridae Alberta Production Ltd.

Pieridae Alberta Production Ltd. ("Alberta Production") is the sole general partner of Pieridae Alberta Development Limited Partnership. Alberta Production was incorporated on June 6, 2018 under the CBCA and was extra-provincially registered on June 7, 2018 under the ABCA. Alberta Production is presently inactive.

# Pieridae Alberta Development Limited Partnership

Pieridae Alberta Development Limited Partnership ("Alberta Development LP") was formed on June 29, 2018 under the *Partnership Act* (Alberta) for the purposes of acquiring and developing natural gas resource properties in Western Canada. Alberta Development LP is presently inactive.

# Pieridae Quebec Production Ltd.

Pieridae Quebec Production Ltd. ("Quebec Production") is the sole general partner of Pieridae Quebec Development Limited Partnership. Quebec Production was incorporated on December 27, 2017 under the CBCA and was extra-provincially registered on January 9, 2018 under the *Business Corporations Act* (Quebec).

#### Pieridae Quebec Development Limited Partnership

Pieridae Quebec Development Limited Partnership ("Quebec Development LP") was formed on April 13, 2018 under the *Partnership Act* (Alberta) for the purposes of acquiring and developing natural gas resource properties in Quebec. Quebec Development LP holds the resource properties formerly held by Pétrolia Inc.

#### Pétrolia Anticosti Inc.

Pétrolia Anticosti inc. ("Pétrolia Anticosti") was incorporated on March 17, 2014 under the to the *Business Corporations Act* (Quebec) and currently provides services in relation to the demobilization of infrastructure and the capping of wells necessitated by the Anticosti Settlement.

#### GENERAL DEVELOPMENT OF THE BUSINESS

#### THREE YEAR HISTORY OF FORMER PIERIDAE

The following is a summary description of the major events which influenced the general development of Former Pieridae and which are material to the current business of the Corporation, for the financial years completed on December 31, 2015 and December 31, 2016 and for part of the financial year completed on December 31, 2017 until its amalgamation with Pétrolia on October 24, 2017.

#### 2015

On May 22, 2015, the U.S. Department of Energy ("US DOE") issued the Order No. 3639 authorizing the annual export, by pipeline, of up to 292 Bcf of natural gas sourced from the United States to Canada for end use in Canada or, after liquefaction in Canada, to export, by vessel, the LNG produced from such natural gas to countries with which the United States has a free-trade agreement. This authorization is for a period of twenty years commencing on the earlier of date of first export and May 22, 2022.

On August 6, 2015 the deadline for the commencement of work on the Project Site (as defined below) imposed by the environmental assessment approval issued by the Minister of the Environment of Nova Scotia of the proposed LNG facility to be situated on the Atlantic Ocean coast in the Municipality of the District of Guysborough, Nova Scotia (the "Goldboro LNG Facility") to be located on the 109 hectares (269.4 acres) of unimproved land situated within the Goldboro industrial park (the "Project Site") was extended from March 21, 2016 to March 21, 2018.

On August 13, 2015, the National Energy Board ("NEB") issued the Export Licence GL-313 on authorizing the export from Canada up to 16.675 billion cubic meters of natural gas each year for a period of twenty years commencing on the date of first export. On the same date, the NEB issued the Import Licence GL-314 authorizing the import to Canada up to 11.845 billion cubic meters of natural gas each year for a period of twenty years commencing on the date of first import.

On December 3, 2015, the Project Site was identified and acquired by 9290834 as agent and bare trustee of Pieridae Canada as general partner of Goldboro Canada LP.

In 2015, Former Pieridae increased its interest in Production LP to 20%. Production LP owns certain natural gas resource properties situated in New Brunswick. Under certain circumstances it is possible for Former Pieridae to increase this interest to 50%. However, there is presently a government imposed moratorium on the use of hydraulic fracturing in New Brunswick which effectively prevents any further exploration and development by Production LP of its natural gas resource properties in that province. The other partner in Production LP is ORLEN Upstream Canada Ltd., an affiliate of Polski Koncern Naftowy Orlen Spółka Akcyjna which is a public corporation listed on the Warsaw stock exchange and is a major Polish oil refiner and petrol retailer with operations in Poland as well as the Czech Republic, Germany and the Baltic States.

#### 2016

On February 5, 2016, the US DOE issued the Order No. 3768 authorizing the annual export, using the capacity of the U.S. portion of the Maritimes & Northeast Pipeline that is in service as of February 5, 2016, of up to 292 Bcf natural gas sourced from the United States to Canada for liquefaction in Canada and re-export as LNG to countries with which the United States does not have a free-trade agreement. This authorization is for a period of twenty years commencing on the earlier of the date of first commercial re-export and February 5, 2023. The volume of natural gas that is authorized for export under Order No. 3768 is not additive to the volume of natural gas that is authorized for export under Order No. 3639.

On May 20, 2016, the Export Licence GL-313 and Import Licence Gl-314 issued by the NEB on August 13, 2015 were officially approved by Order in Council No. P.C. 2016-391.

# 2017

On May 3, 2017, Former Pieridae completed the successful negotiation of a collective agreement affecting 15 of the relevant trade unions in Nova Scotia which will be relied upon to construct the Goldboro LNG Facility.

On July 28, 2017, the Labour Board (Nova Scotia) issued the orders LB-1322 and LB-1323 declaring that the collective agreement is a project agreement with effect commencing July 27, 2017 in accordance with subsection 5(3) of the Construction Project Labour Relations Act (Nova Scotia).

On October 24, 2017 the deadline for the commencement of work on the Project Site imposed by paragraph 1.3 of the environmental assessment approval issued by the Minister of the Environment of Nova Scotia of the proposed Goldboro LNG Facility was extended from March 21, 2018 to March 21, 2019. On November 9, 2018 the Government of Nova Scotia confirmed that this condition was satisfied by the clearing of the Project Site in early 2018.

#### THREE YEAR HISTORY OF PÉTROLIA

The following is a summary description of the major events which influenced the general development of Pétrolia and which are material to the current business of the Corporation, for the financial years completed on December 31, 2015 and December 31, 2016 and for part of the financial year completed on December 31, 2017 until its amalgamation with Pieridae on October 24, 2017.

#### 2015

A production pump arrived at the site of the Haldimand No. 4 well on April 24, 2015. The pump was used to complete well cleaning operations. To install the pump, the well was opened twice: once on March 31, 2015, and a second time on April 24, 2015. The first opening allowed the verification of the production separator before pump installation. The opening of the well on March 31, 2015 enabled the production of 10.2 cubic metres ("m³") (64 barrels) of light crude oil by natural means and of 17.31 m³ (109 barrels) upon reopening on April 24, 2015. A total of 120.4 m³ (757 barrels) of drilling fluids mixed with light crude oil was collected during the short-term evaluation test, including 54 m³ (340 barrels) of light crude oil between February 3 and 15, 2015. In July 2015, Pétrolia developed a plan to complete further clean-up operations. In August 2015, permit applications were submitted relating to this clean-up program.

On August 5, 2015, Pétrolia announced the development of a resource confirmation program for the Bourque project to follow up on the results obtained during the merging of the 2008 3D seismic data and data gathered during 2012 drillings (reprocessing).

On October 6, 2015, the Corporation announced that a completion permit was issued by the Ministère de l'Énergie et des Ressources naturelles du Québec ("MERN") for the Haldimand No. 4 well. This permit authorized the cleaning of the well the commencement of the long-term production test. The cleaning operation took place between October 18 and December 20, 2015. It consisted in successive phases of cleaning with nitrogen, then acid, and a final cleaning with nitrogen. A period of natural flow followed the cleaning operation, during which the well produced up to 59.8 barrels (9.5 m³) of crude oil per day, with an average 43.5 barrels (6.9 m³) per day, totalling 360 barrels (57.2 m³) during a period of just over 8 days, between December 12 and 20, 2015. Such production of an average 43.5 barrels (6.9 m³) per day compares favourably with the 13.8 barrels (2.19 m³) per day observed just before the cleaning operation, thus confirming the efficiency of the operation. The team then worked on preparing the next stages, including a long-term production test.

Following the closing of a first phase of financing by Ressources Québec inc. ("Ressources Québec") and TUGLIQ Energy Corp. ("TUGLIQ Energy") for the Bourque permits on November 6, 2015, a joint venture was created by Pétrolia, Ressources Québec and TUGLIQ Energy. For the purposes of this transaction, the value of the Bourque permits was based on exploration expenses incurred by Pétrolia in the amount of \$21,888,692. Ressources Québec invested \$918,200 in the joint venture in exchange for a 4.8% participation in Pétrolia's permits on the Bourque property, while TUGLIQ Energy acquired a 5.29% participation in such permits in exchange for its investment of \$1,350,000.

Thus, further to this transaction, Pétrolia held a 89.91% participation in the permits related to the Bourque property.

#### 2016

On May 18, 2016, Pétrolia announced the commencement of long-term production testing on Haldimand 4. Pétrolia was issued all the necessary government approvals to begin such production test. The Corporation and its then partner Québénergie Inc. ("Québénergie") approved the long-term test program.

On July 15, 2016, Pétrolia confirmed that it had closed the second phase of the financing for the Bourque project by Ressources Québec for a total amount of \$8,500,000. This investment constituted a direct participation in the four permits related to the Bourque property in the amount of \$2,000,000 in cash and a contribution of \$6,500,00, by way of calls for funds, to carry out the exploration program. This investment allowed Ressources Québec to obtain an additional 38.88% interest in Pétrolia's participation and a 1.32% of TUGLIQ Énergy's participation in such permits. The proceeds of this financing are used by Pétrolia to carry out the exploration program on the Bourque property. Following the completion of this second phase of financing of the Bourque property, Pétrolia's participation in the joint venture amounted to 51.03 %, Ressources Québec to 45 % and TUGLIO Energy to 3.97 %.

On September 2, 2016, Pétrolia confirmed the existence of a functional oil reservoir comprised of natural fractures on the Haldimand property as well as the suspension of the production test for the Haldimand No. 4 well, started in May 2016.

On September 26, 2016, Pétrolia announced the commencement of the operations leading to the drilling of the lateral section of Bourque No. 1. The drilling of the horizontal leg of the reservoir was followed by logging and completion. The lower open hole section of the well was permanently abandoned through the installation of 4 cement plugs. Thereafter, the drilling rig was moved a few metres ("m") away towards the enlarged portion of the Bourque No. 1 site in order to drill a third well (Bourque HZ No. 3).

On December 23, 2016, Pétrolia announced that the most recent step in the process of verifying the presence of resources on the Bourque property, namely the re-entry and completion of Bourque No. 1 as well as an additional drilling (Bourque HZ No. 3), was completed on time and within the budget. This drilling revealed the presence of gas and oil in the Forillon formation. The Bourque HZ No. 3 completion program was delayed in order to analyze the data collected on Bourque No. 1 and to finalize the plan for production tests. As a result, Pétrolia demobilized the equipment until spring 2017. In the meantime, measuring instruments were installed in the wells in order to continue collecting data and the site was secured for the rest of the season.

# 2017

During the first quarter of the fiscal year 2017, the Québec government confirmed its support for Anticosti's designation as a UNESCO World Heritage Site. Following this announcement, the Québec government-initiated negotiations with Pétrolia and its partners in Anticosti Hydrocarbons L.P. with the aim of ending oil and natural gas exploration on Anticosti Island. On July 24, 2017, the Government of Québec adopted an order in council, published in the Gazette officielle du Québec and effective July 28, 2017, prohibiting the exploration and development of oil and gas on Anticosti Island. It also announced the conclusion of agreements with certain companies involved in oil and gas exploration on Anticosti Island, particularly Junex inc. as well as Corridor Resources Inc. and Saint-Aubin E&P (Québec) inc., two of the partners of Anticosti Hydrocarbons L.P.

On September 29, 2017, the Government of Québec and Pétrolia entered into a settlement agreement concerning the cessation of oil & gas exploration and development activities on Anticosti Island. The cessation of work, the end of the exploration program, as well as the termination of the operator contract held by Pétrolia Anticosti Inc. were negotiated in return for a \$20.4 million financial compensation for Pétrolia, which held a 21.67% interest in the Anticosti project and \$150,000 for Petrolia Anticosti Inc. Under this agreement, the Government of Québec obtained the rights to certain of Pétrolia's exploration and evaluation assets on Anticosti Island and will assume the financial obligations related to the future restoration of these properties, for which a net liability of \$152,677 was recorded as at September 29, 2017, consisting of exploration and evaluation assets of \$147,975 and a provision for site restoration of \$300,652. Also, under this agreement, the Government of Québec undertook to vote, through Ressources Québec, in favour of the proposed arrangement with Pieridae as well as to sign the support and pooling agreement and the same escrow agreement as the other Pétrolia insiders.

On October 23, 2017, Pétrolia acquired complete control of the Haldimand project. Previously, it had a 50% interest with Québénergie holding the other 50%.

# Financing

On March 16, 2015, Pétrolia issued 2,728,500 flow-through shares at the price of \$0.80 per share (preconsolidation) amounting to \$2,182,800 in gross proceeds.

On November 4, 2015, Pétrolia issued 3,825,000 flow-through shares at the price of \$0.40 per share (preconsolidation) amounting to \$1,530,000 in gross proceeds.

On November 6, 2015, Pétrolia issued, in favour of Ressources Québec, 8,005,000 units at the price of \$0.36 per unit (pre-consolidation), amounting to \$2,881,800 in gross proceeds and issued, in favour of certain directors, 245,000 units at the price of \$0.36\$ per unit (pre-consolidation), amounting to \$88,200 in gross proceeds. The units were comprised of one common share (pre-consolidation) of the Corporation and half a common share purchase warrant at an exercise price of \$0.54 (pre-consolidation), during the 36 months following the closing of such private placement.

On July 15, 2016, Pétrolia issued 4,629,626 flow-through shares at the price of \$0.27 per share (preconsolidation) amounting to \$1,250,015 in gross proceeds.

On October 27, 2016, Pétrolia issued 6,077,579 flow-through shares at the price of \$0.19 per share (preconsolidation) amounting to \$1,154,740 in gross proceeds.

On March 17, 2017, Pétrolia issued 5,222,223 flow-through shares at the price of \$0.18 per share (preconsolidation) for gross proceeds of \$940,000.

The proceeds from these private placements were used by Pétrolia to incur exploration costs in Canada on Pétrolia's properties located in the province of Quebec.

#### AMALGAMATION OF FORMER PIERIDAE AND PÉTROLIA

On May 15, 2017 Former Pieridae and Pétrolia entered into a definitive agreement providing for an amalgamation by way of plan of arrangement pursuant to which Pétrolia and Former Pieridae amalgamated to form a new entity to be named Pieridae Energy Limited (the "Arrangement"). The completion of the Arrangement resulted in a reverse takeover of the Corporation as defined in the policies of the TSX Venture Exchange. The Amalgamation was subject to the receipt of shareholder and court approvals and regulatory approval. At meetings of their respective shareholders held on October 7, 2017 for Pétrolia and September 26, 2017 for Former Pieridae, shareholders of both Pétrolia and Former Pieridae approved the Amalgamation. On October 11, 2017, the Superior Court of Quebec issued a final order approving the Amalgamation.

In connection with the Arrangement, Former Pieridae raised net proceeds of \$24,632,500 in a brokered subscription receipt financing, in which 2,052,130 subscription receipts of Former Pieridae were converted into common shares of Former Pieridae, which in turn were subsequently converted into common shares of the Corporation in accordance with the exchange mechanics described as follows.

On October 24, 2017, the Arrangement became effective with the issuance, by Corporations Canada, of a Certificate of Arrangement. Pursuant to the Arrangement, the common shares in the capital of Pétrolia (the "Pétrolia Shares") were consolidated (the "Consolidation") on the basis of one (1) post-Consolidation Pétrolia Share for each twelve (12) Pétrolia Shares held by a Pétrolia shareholder (a "Pétrolia Shareholder") (subject to rounding). Former Pieridae issued to the holders ("Former Pieridae Shareholders") of common shares in the capital of Former Pieridae ("Former Pieridae Shares") 2.2057526 common shares in the capital of Pieridae ("Pieridae Shares") for each one (1) Former Pieridae Share held by a Former Pieridae Shareholder (subject to rounding), for aggregate consideration of 40,750,339 Pieridae Shares issuable to Former Pieridae Shareholders in exchange for the 18,474,574 Former Pieridae Shares which were outstanding at the effective time of the Arrangement. Similarly, at the effective time of the Arrangement, Pieridae issued to the Pétrolia Shareholders one (1) Pieridae Shares (on a post-Consolidation basis) which were outstanding at the effective time of the Arrangement. Each Pieridae Share issued to Former Pieridae Shareholders or to Pétrolia Shareholders pursuant to the Arrangement were issued at a deemed price of \$5.667 per Pieridae Share (on a post-Consolidation basis).

After giving effect to the Arrangement, there were approximately 49,794,063 Pieridae Shares issued and outstanding (calculated on a non-diluted basis).

On November 2, 2017, the Pieridae Shares commenced trading on the TSX Venture Exchange under the symbol "PEA".

#### DEVELOPMENTS SUBSEQUENT TO THE PÉTROLIA ARRANGEMENT

# Resources Update

As of November 23, 2017, Pieridae announced the update of a report prepared by Sproule Associates Limited ("**Sproule**") for its Bourque property. The partners on the Bourque project are Pieridae, Ressources Québec and Tugliq. Pieridae is the operator of Bourque and majority owner.

Pieridae completed the re-entry drilling of Bourque No. 1 (Bourque HZ No. 1R1) and drilling of a second horizontal well (Bourque HZ No. 3) on the same site. Upon completion of the drilling of these wells in December 2016, the Company installed pressure gauges and the wells were shut-in for the winter. In May 2017, these gauges were recovered with additional production tests conducted in July 2017.

The results of the production tests and sample analyses were used to assess the best means to put these wells into production. In late August 2017, Sproule received all this new data as well as 66 km<sup>2</sup> of reprocessed 3D seismic data obtained in 2015. Sproule was then mandated to prepare an update of the evaluation report of the resource contained within the Bourque project, effective as of December 31, 2017.

As of December 31, 2017, the best estimate of the Total Petroleum Initially-in-Place (TPIIP) for the pool volume is 827,000 Mbbl (Table 6). The Discovered Petroleum Initially-in-Place (DPIIP) is estimated at 62,000 Mbbl and the Undiscovered Petroleum Initially-in-Place (UPIIP) is estimated at 765,000 Mbbl.

For Pieridae Working Interest, the Total Petroleum Initially-in-Place (TPIIP) in the pool volume is 422,018 Mbbl. The Discovered Petroleum Initially-in-Place (DPIIP) is estimated for the Company at 31,639 Mbbl and the Undiscovered Petroleum Initially-in-Place (UPIIP) is estimated at 390,380 Mbbl.

The best estimate of the un-risked Contingent Resources for the pool volume is 5,714.7 Mboe (2,241.0 Mbbl of oil, 17,753 MMcf of conventional natural gas and 514.8 Mbbl of NGL). The best estimate of the Company un-risked Contingent Resources is 2,926.2 Mboe (1,143.6 Mbbl of oil, 9,059.6 MMcf of conventional natural gas and 262.7 Mbbl of NGL). The contingent resources are sub-classified as "Development Unclarified".

The best estimate of the un-risked Prospective Resources in the pool volume is 44,294.2 Mboe (16,062.0 Mbbl of oil, 144,287 MMcf of conventional natural gas and 4,184.3 Mbbl of NGL). The best estimate of the un-risked Company Prospective Resources is 22,603.3 Mboe (8,196.4 Mbbl of oil, 73,629.7 MMcf of conventional natural gas and 2,135.3 Mbbl of NGL). The Prospective Resource is sub-classified as prospective (Prospect).

A 30% chance of development risk (70% chance of not proceeding with development) is assigned by Sproule to Contingent Resources.

A 26% chance of commerciality risk (74% chance of not proceeding with development) is assigned by Sproule to Prospective Resources. This is the product of a 30 percent chance of development risk and a 90 percent chance of discovery risk.

The best estimate of the risked Contingent Resources for the pool volume is 1,714.4 Mboe (672.3 Mbbl of oil, 5,326 MMcf of conventional natural gas and 154.5 Mbbl of NGL). The best estimate of the Company risked Contingent Resources is 874.9 Mboe (343.1 Mbbl of oil, 2,717.9 MMcf of conventional natural gas and 78.8 Mbbl of NGL). The contingent resources are sub-classified as "Development Unclarified".

The best estimate of the risked Prospective Resources in the pool volume is 11,516.5 Mboe (4,176.1 Mbbl of oil, 37,515 MMcf of conventional natural gas and 1,087.9 Mbbl of NGL). The best estimate of the risked Company Prospective Resources is 5,876.9 Mboe (2,131.1 Mbbl of oil, 19,143.7 MMcf of conventional natural gas and 555.2 Mbbl of NGL). The Prospective Resource is sub-classified as prospective (Prospect).

The operations on these two wells have established the presence of oil and gas in the reservoir. It has also revealed that the reservoir is tight and will require some stimulation to allow for economic production.

# Appointment of Financial Advisors

On February 27, 2018, Pieridae announced it has engaged Morgan Stanley & Co, LLC and SG Americas Securities, LLC to serve as financial advisors for the Corporation's Goldboro LNG Project (as hereinafter defined).

# Sale and Purchase Agreement

On May 7th, 2018, Pieridae announced that it has entered into a term sheet to negotiate a binding liquefied natural gas (LNG) sale and purchase agreement ("SPA") to supply Canadian-sourced liquefied natural gas to Europe from the Second Train of the Goldboro liquefaction facility in Nova Scotia.

Under the term sheet with Pieridae, the offtaker will purchase up to 1 million tonnes per annum of LNG. This contract is scheduled to begin from the Start of Commercial Deliveries (currently estimated to be the first quarter of 2023) and last for a 10-year period.

# Arrangement with Ikkuma

On August 24, 2018, Pieridae and Ikkuma Resources Corp. (IKM-TSXV) ("Ikkuma") announced they have entered into a definitive agreement dated August 23, 2018 (the "Arrangement Agreement") providing for the acquisition by Pieridae of all of the issued and outstanding shares of Ikkuma to be effected by way of a plan of arrangement (the "Arrangement") under section 193 of the Business Corporations Act (Alberta).

The completion of the Arrangement will provide Pieridae with ownership of an extensive area of producing and gas-prone reserve and resource properties situated primarily in the central Alberta Foothills area (the "Natural GasProperties"). The Arrangement Agreement also provides for the transfer, prior to the effective date of the Arrangement, by Ikkuma of certain interests in Cardium light oil-focused Alberta Foothills properties (the "Crude Oil Properties") to a newly formed private corporation ("ExploreCo"), contingent on customary regulatory approvals by the Alberta Energy Regulator (the "AER").

On completion of the Arrangement, each shareholder of Ikkuma will receive, for each common share of Ikkuma, 0.1926 of a common share of Pieridae and 0.1 of a share of ExploreCo (with Ikkuma shareholders holding 100% of ExploreCo upon completion of the Arrangement), subject to AER approval of the transfer of the Crude Oil Properties. If such AER approval is not received by December 31, 2018, no shares of ExploreCo will be distributed to shareholders of Ikkuma and those shareholders will not receive any further consideration. The exchange ratio values the shares of Ikkuma at \$0.86 per share (excluding the value of ExploreCo shares), representing a premium of 188% to the closing price of \$0.30 per share as of August 23, 2018 of Ikkuma common shares on the TSX Venture Exchange. Pieridae expects that their actual shareholders will own approximately 70% of the outstanding shares of the Corporation after completion of the transaction. The Arrangement remains subject to customary conditions, including receipt of applicable court, Ikkuma shareholder and regulatory approvals, and is expected to close in the fourth quarter of 2018. Pieridae Shareholders approval is not required under TSX policies. All conditions and contingencies that must be resolved before the closing of the acquisition are disclosed in the Article 5 of the Arrangement agreement available on <a href="www.sedar.com">www.sedar.com</a>.

The completion of the Arrangement and the concomitant acquisition by Pieridae of Ikkuma represents an important step forward in Pieridae's objective of procuring sufficient long-term volumes of natural gas for use as feedstock and fuel in the production of LNG from Train 1 of the Goldboro LNG facility. It is a condition to completion of the Arrangement that Pieridae shall have: (i) procured debt financing (including by way of an assumption of amounts owing pursuant to the Term Loan), and/or completed an equity financing, in each case on commercially reasonable terms, to assume or repay all amounts owing pursuant to the Term Loan and unless Pieridae assumes the Term Loan, Pieridae shall have repaid, or made available to Ikkuma sufficient funds to repay, all amounts owing under the Term Loan; and (ii) if Ikkuma shall not have completed the Secondary Transaction for aggregate proceeds of not less than \$16 million, procured debt financing (including by way of an assumption of amounts owing pursuant to a debt financing entered into by Ikkuma prior to the Closing Date that is agreed to in writing by Pieridae), and/or completed an equity financing, in each case on commercially reasonable terms, for not less than \$16 million and unless Pieridae assumes such debt financing, Pieridae shall have repaid, or made available to Ikkuma sufficient funds to repay, all amounts owing under the Credit Agreement in the event the Secondary Transaction has not been completed, provided that in no event shall there be an obligation to repay more than an aggregate of the sum of \$66 million plus the lesser of (i) \$12 million and (ii) the total of those expenditures which were incurred by Ikkuma after June 30, 2018 but before five calendar days prior to closing and which can be renounced by Ikkuma to purchasers of flow-through shares pursuant to section 66(12.66) of the Income Tax Act (Canada) on or prior to December 31, 2018 with an effective date of December 31, 2017.

#### Appointment of New Director

On June 27, the Corporation announced the election of M. Kjell Pedersen as a new independent director.

# Governmenet of Quebec adopts new oil & gas regulation

On September 20, 2018 the Government of Quebec adopted new regulations aimed at Quebec oil and gas development. The new regulations impact oil and gas development within a 1,000 m radius of any urban area. The new regulations will apply to some of Pieridae's properties in Quebec. Pieridae is assessing the impact of the new regulations and is working with the Quebec government to mitigate and manage impacts to Pieridae's properties in Quebec.

#### Pieridae Receives Permit to Construct the Goldboro LNG Facility

The Nova Scotia Utility and Review Board issued the permit to construct the Goldboro LNG Facility on November 5, 2018. Pieridae expects to proceed to satisfy each of the associated conditions of that permit and to commence the construction of the Goldboro LNG Facility as soon as a positive financial investment decision is taken by Pieridae. In anticipation of the commencement of construction, Pieridae has engaged Hatch Ltd. to act as its engineering adviser. Hatch was selected due to its core competencies in the conversion, storage, handling and transportation of LNG, which is critical to ensuring a well-thought-out plan that incorporates all aspects of the project site. Hatch has a global network of approximately 9,000 professionals spanning over 150 countries in various sectors including energy and infrastructure. Pieridae is also continuing to engage with First Nations so that the Mi'kmaq people will realize on the opportunities contemplated by the Memorandum of Understanding signed in August 2013.

# Pieridae Eligible to Benefit from Additional Conditional Loan Support from the German Government

Pieridae announced on October 29, 2018 that its proposed financing of upstream activities within the Goldboro LNG Project has received a written confirmation of eligibility in principle for up to US \$1.5 billion of untied loan guarantee by the German federal government under its UFK program (Bundesgarantien für ungebundene Finanzkredite). This confirmation satisfies a condition to completion of the Arrangement and marks an important milestone in advancing the integrated Goldboro LNG Project towards a final investment decision. This prospective US \$1.5 billion German government loan guarantee in relation to the proposed financing of conventional upstream natural gas development is in addition to a like confirmation of UFK eligibility that was previously announced, namely for up to US \$3 billion of prospective German government loan guarantees for the proposed financing of the construction of the Goldboro LNG Project train 1 and all associated facilities.

The terms and conditions of both guarantees are yet to be negotiated in the context of an overall project financing. Given that the rationale of Germany's UFK program is to enhance security of commodity supply, the actual grant of the guarantees will be subject to, among other things, a commitment that a specified amount of LNG produced annually from the proposed Goldboro LNG facility over a term of twenty years will be delivered to, and be regasified in, Europe. In 2013, Uniper Global Commodities S.E. entered into a twenty-year agreement with Goldboro Canada LP to purchase approximately 5 million tons per annum of LNG produced from train 1 of the proposed Goldboro LNG Facility. This agreement was subsequently amended on February 3, 2016, June 2, 2017 and November 1, 2018 thereby extending the deadline imposed on Pieridae for satisfying certain conditions thereunder. The amendment of this agreement on November 1, 2018 satisfies a condition to the completion of the Arrangement.

On August 15, 2018 Pieridae announced the appointment of KfW IPEX-Bank as an adviser in assisting it to finalize a multibillion U.S. dollar untied loan guarantee from the German federal government under its UFK program.

# Appointment of CFO

Mario Racicot resigned as the chief financial officer of Pieridae on September 1, 2018 and on September 14, 2018 Pieridae announced the appointment of Ms. Melanie Litoski as Chief Financial Officer ("CFO") of Pieridae. See "Directors and Executive Officers" in this document for additional information regarding Ms. Litoski.

# **BUSINESS OF THE CORPORATION**

#### **DESCRIPTION OF THE BUSINESS**

Pieriade's mission is to build shareholder value by becoming the first fully integrated independent LNG producer in Canada. The Pieridae's business activities are centred on the development of the following fields of the energy sector: (a) the production and procurement of Canadian and U.S. natural gas, (b) the processing and liquefaction of that natural gas in the production of LNG at a facility owned by Pieridae and (c) the sale of the LNG to customers for export to international markets and to specific markets in North America. Value will be created to the extent that the price for LNG in international markets (which is often oil influenced) exceeds the cost of the natural gas production and procurement in the North American market and related costs including transportation, liquefaction, shipping and regasification.

Pieridae's business model is based upon the traditional integrated model for the LNG industry which is characterized by the ownership of both natural gas resources and liquefaction capacity. In terms of liquefaction capacity, the Corporation is developing a natural gas liquefaction facility to be situated on the Atlantic Ocean coast, near the community of Goldboro, Nova Scotia (the "Goldboro LNG Project"). This traditional model allows for more flexible management and mitigation of risks along the value chain. This project is at its development stage and Pieridae is seeking to secure sales, procurement, transportation, financing and get all regulatory approval for a final investment decision in Q4 2018/Q1 2019.

Pieridae's management team is comprised of a proven team of professional management in all key operational areas of the organization. See "Directors and Officers".

As at December 31, 2017, a total of 20 persons were employed by the Corporation.

#### SOCIAL AND ENVIRONMENTAL POLICIES

The Corporation has adopted policies relating to health, safety and environmental matters. The Corporation's objective is to pursue its business strategy while ensuring that its operations meet applicable safety standards and account for environmental and social impacts. Occupational and community health and safety are key concerns in the planning and performance of exploration work. Special attention is also paid to local community and business relationships, as well as environmental protection.

In Québec, the Corporation has appointed a Head of Community Relations to build ties with the community and strengthen Pieridae's partnerships with the economic and social stakeholders in the regions where it operates. It has also established monitoring committees in a joint initiative with the municipalities having the mandate to facilitate the exchange and dissemination of project information. The committees hold meetings quarterly, or more frequently as needed.

In Nova Scotia, under the Environmental Assessment Approval, the Corporation has established a Community Liaison Committee and Fisheries Advisory Committee. In addition, the Corporation has developed a complaint resolution plan, along with a Mi'kmaq Communication Plan, Community Communication Plan, and Archaeology and heritage resources monitoring and contingency plan which are updated periodically.

#### PROTECTION OF ENVIRONMENT

The Corporation's operations are regulated by laws, act and regulations with respect to, among others, environmental protection. Environmental consequences are difficult to identify, whether in terms of level, timeline or impact. Pieridae is operating in accordance with the applicable environmental protection laws, act and regulations in force.

#### COMPETITION

The oil and gas and LNG industry are extremely competitive in every aspect. The Corporation competes with other companies that have greater financial resources, staff and facilities than those of the Corporation. Competition could affect the Corporation's ability to acquire properties or capital for its future plans. The Corporation believes that its competitive position is equivalent to that of other Integrated LNG developing issuers of a similar size and at a similar stage of development.

#### LEGISLATIVE FRAMEWORK

On December 9, 2016, Bill 106: An Act regarding the implementation of the 2030 Energy Policy and amending various legislative provisions was adopted at the Québec National Assembly. This law provides a legislative framework specific to the hydrocarbon's exploration and exploitation activities, which were previously governed by the Mining Act.

The *Petroleum Resources Act* and its regulations were published on September 5, 2018 and became in force on September 20, 2018. This new Act and regulations govern the management of land-based oil and gas activities carried out pursuant to exploration, production and hydrocarbon storage licenses, the management of hydrocarbon exploration, production and storage licenses, oil and gas activities in hydrous environments and regarding fees, duties on the substances withdrawn.

In Nova Scotia, all environmental regulations are pursuant to the Environment Act which applies to LNG. Also, other provincial departments such as Lands and Forestry, Transportation and Infrastructure Renewal along with Department of Mines and Energy also have acts and subsequent regulations which apply to or are associated with LNG. Some of these Acts include, but are not limited to, Crown Lands Act, Endangered Species Act, the Highway's Act and the Pipeline Act. In addition, federal Departments and agencies have acts and legislation associated with LNG such as Transport Canada and Department of Fisheries and Oceans. Some of these Acts include Department of Transport Act, Canada Shipping Act and Fisheries Act. Many fall under the umbrella of Nova Scotia Environmental Assessment Approval and associated applications for approval.

Furthermore, there is presently a government-imposed moratorium on the use of hydraulic fracturing in New Brunswick which effectively prevents any further exploration and development by Production LP of its natural gas resource properties in that province.

#### SKILLS AND SPECIALIZED KNOWLEDGE

The Corporation's business requires specialized skills and knowledge in all of its aspects including, but not limited to, oil and gas operations, LNG facility engineering and construction and LNG operations. The employees, subcontractors and consultants of the Corporation have the required expertise and specialized knowledge to allow the Corporation to carry out its activities.

# REORGANIZATION

Other than the Arrangement, the Corporation or any of its subsidiaries have not been the object of any reorganization within the three most recently completed financial years. The Corporation completed, during the current financial year, the transfer of the licences it holds for oil and gas exploration in Quebec to Pieridae Quebec Development Limited Partnership, a limited partnership created on January 2, 2018, of which Pieridae is the limited partner and Pieridae Quebec Production Ltd. the general partner.

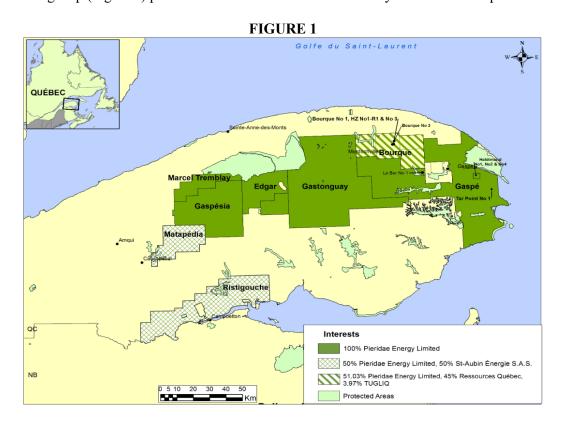
#### LICENCES AND PARTNERSHIPS

Pieridae hold licences for and interests in an area of 10,117.75 km<sup>2</sup>, amounting to nearly 19% of Quebec's territory under licence. Located in Eastern Quebec, these areas are known for their oil potential. Pieridae's territories under licence also offer the potential of discovering natural gas and possibly liquid natural gas.

In addition, there are three partnership agreements covering portions of the territories under licences to be held by Pieridae:

- On the territory covered by the Bourque licences (see map below), Pieridae hold a 51% interest in each of the 4 licences, covering a total area of approximately 742 km². TUGLIQ Energy holds a 4% interest and Ressources Québec holds a 45% interest respectively in such licences.
- Pieridae holds a 20% interest in Production LP, which owns certain natural gas resource properties situated in New Brunswick. Under certain circumstances it is possible for Pieridae to increase this interest to 50%. However, there is presently a government imposed moratorium on the use of hydraulic fracturing in New Brunswick which effectively prevents any further exploration and development by Production LP of its natural gas resource properties in that province. The other partner in Production LP is ORLEN Upstream Canada Ltd., an affiliate of Polski Koncern Naftowy Orlen Spółka Akcyjna which is a public corporation listed on the Warsaw stock exchange and is a major Polish oil refiner and petrol retailer with operations in Poland as well as the Czech Republic, Germany and the Baltic States.
- On the territory covered by the Baie-des-Chaleurs-Matapédia and Ristigouche licences (see map below), Pieridae hold a 50% interest in conjunction with Saint-Aubin Énergie S.A.S. (a subsidiary of Maurel & Prom and Maurel & Prom International) which also holds a 50% interest in 13 licences, covering an area of over 1,800 km<sup>2</sup>.
- The remaining licence blocks are wholly owned by Pieridae.

The following map (Figure 1) plots the locations of the licences held by Pieridae and its partners.



# PROPERTIES OF THE CORPORATION

The texts set forth in the sections entitled "Properties of the Corporation" and in Appendix A "Contingent and Prospective Resources (As of December 31, 2018)" are based on a report dated March 15, 2018 and revised as of October 3<sup>rd</sup> 2018, prepared by Pieridae Energy Limited entitled "Technical Review of P&NG Holdings of Pieridae Energy Limited in Quebec and New Brunswick (as of December 31, 2017)" and audited by Sproule Associates Limited in accordance with *National Instrument 51-101 – Standards of Disclosure For Oil and Gas Activities* ("NI 51-101") (the "Report"). Such texts are qualified by reference to the complete text of the Report and any terms used therein have the same meaning given to those terms in the Report. The Report is hereby incorporated by reference herein and readers are referred to the Report for additional information that may be required pursuant to NI 51-101.. A copy of such report is available electronically on SEDAR at <a href="www.sedar.com">www.sedar.com</a>. As of December 31, 2017, no oil or natural gas reserves have been assigned to any of the properties in which Pieridae has an interest.

#### **DESCRIPTION OF THE PROPERTIES**

The Corporation's land holdings as of December 31, 2017, are located in the Province of Quebec and the Province of New Brunswick. These include lands held under oil and gas exploration licences (PG) or underground reservoir exploration licences (RS) issued by the Government of Quebec and an ownership interest of 20% in Production LP. In total, such lands cover an area of 1,026,246 hectares on a gross basis and 883,721 hectares on a net basis. All properties of the Corporation are onshore and none of them will expire within the year. Moreover, all wells drilled on Pieridae's properties are non-producing.

In the Gaspé Peninsula, the land is divided for the sake of convenience into seven properties, Gaspé, Bourque, Gastonguay, Gaspésia, Marcel Tremblay, Edgar and Matapédia-Restigouche, covering 1,011,876 gross hectares (Figure 1).

TABLE 1

Property	Number of Permits Working Interest (%)		Gross Area (ha)	Net Area (ha)	
Quebec					
Bourque	4 PG <sup>(1)</sup>	51	74,267	37,876.2	
Gaspé (including Haldimand)	12 PG(1) 6 RS(2)	100	269,143	269,143.0	
Gastonguay	13 PG <sup>(1)</sup>	100	259,015	259,015.0	
Gaspésia	7 RS <sup>(3)</sup>	100	137,000	137,000.0	
Edgar	3 RS <sup>(3)</sup>	100	50,010	50,010.0	
Marcel Tremblay	2 RS <sup>(3)</sup>	100	33,165	33,165.0	
Matapédia and Restigouche	6 PG <sup>(1)</sup> & 7 RS <sup>(4)</sup>	50	189,276	94,638	
	Total Qué	bec Pieridae	1,011,876	880,847	
New Brunswick					
	8	20	14,371	2,874.2	
Total Pieridae 1,026,246 883,72					

- (1) Oil and gas exploration licences obtained April 28, 2009.
- (2) Underground reservoir permits licenses November 21, 2005
- (3) Underground reservoir licenses obtained April 28, 2009.
- (4) Underground reservoir licenses obtained November 23, 2007

On May 6, 2008 the Corporation signed a comprehensive agreement that amended a prior agreement with Junex Inc. ("Junex") pertaining to the Gaspé and Gastonguay properties. Under this agreement, the Corporation acquired a 100 percent interest over an area of 6,043 km² on these properties, subject to royalties varying from 0.5 percent to 2.5 percent on the future production of hydrocarbons. Also, under the agreement, the Corporation and Junex agreed to become 50/50 partners in a block of licences covering an approximate area of 291 km², with Junex acting as operator. On this same date a second agreement (the "Haldimand Joint Operating Agreement" or "JOA Haldimand") defined a development area of 9 km² around Haldimand N°1 well, which was held as to a 45 percent interest by each of the Corporation and Junex with Gastem holding the remaining 10 percent (the "Haldimand Project"). Some licences for these properties are subject to royalties of 5 percent.

On July 30, 2009, the Corporation became the operator of the Haldimand Project, assuming control from Junex as per an amendment to the Haldimand Joint Operating Agreement dated July 22, 2009. As part of the amending agreement, the Corporation also acquired from Junex an additional 9 percent interest in a block of licences covering 291 km² (the "Haldimand Joint Lands") after drilling the Haldimand N°2 well and doing additional work on the Haldimand N°1 well. As of October 1, 2009, the Corporation also acquired Gastem's 10 percent working interest in the Haldimand Joint Lands. The Corporation's interest in the Haldimand Project thus increased to 64 percent.

On June 6, 2010, a further agreement was concluded with Junex, whereby the limits of some jointly held licences in the Gaspé area were modified with the approval of the regulatory authorities and the Haldimand Joint Lands were divided equally amongst the partners. Junex kept the modified permit 2005RS120, adjacent to its Galt Property while the Corporation kept the areas located closer to the Haldimand Project.

On December 8, 2010, Québénergie acquired an interest in 11 whole PG licences, one full RS permit, and a portion of RS permit (2009RS112). Québénergie obtained a 32 percent working interest in the Haldimand Joint Lands, which is 50 percent of the Corporation's original 64 percent working interest. The interest is less of royalties payable to third parties, which amounts vary by permit.

On December 20, 2011, the Corporation announced that together with its partner Québénergie, they purchased all of the interests held by Junex in the Haldimand Joint Lands. With this transaction the Corporation and Québénergie acquired 100% ownership of the deposit with each owning equal shares in such deposit and the surrounding properties.

On October 23, 2017, the Corporation bought back Québénergie's interest in the Haldimand discovery area and the 13 exploration permits of the Gaspé Property (Block). Following this transaction, the Corporation has increased is working interest to 100% in the Haldimand area (13 exploration permits).

The licences issued by the Government of Québec give the Corporation the exclusive right to undertake oil and gas and underground reservoir exploration work for an initial five-year period, with the possibility of further annual renewals for another five years, provided certain obligations are fulfilled. These obligations met each year. The minimum required expenditure must be equivalent to \$0.50 per hectare the first year. The minimum expenditure increases by \$0.50 per hectare in each subsequent year, reaching \$2.50 per hectare in the fifth year. For each additional renewal, the rental fee is fixed at \$0.50 per hectare and the work obligations are equivalent to \$2.50 per hectare. In June 2011, the Quebec National Assembly adopted the *Act to limit oil and gas activities* (Bill 18) (amended in June 2014) which provides that until the adoption of a statute dealing with oil and gas activities or a date determined by the Government of Quebec, oil and gas activities in the St. Lawrence River upstream of Anticosti Island and on the islands situated in that part of the river are prohibited. Holders of licenses to explore for petroleum, natural gas and underground reservoirs are exempted from performing the exploration work required by law and the terms of such licenses are suspended.

For the Quebec exploration licences, the Corporation expended \$2,480,619 in the reporting fiscal year (2017) as exploration expenses and \$200,293 in property annuities and acquisition costs. The exploration expenses already incurred over the licences are sufficient to meet the minimum work obligation for the next fiscal year that would have been applicable, notwithstanding Bill 18.

The following sections present additional information regarding each of the property blocks held by the Corporation.

# **NEW BRUNSWICK ASSETS**

On March 4, 2013, Former Pieridae entered into an agreement with Contact Exploration Inc. (subsequently Kicking Horse Energy Inc.) to establish PPLP in order to acquire and develop natural gas resources in New Brunswick. As at January 1, 2014, Former Pieridae, as a limited partner, had a 16.98% interest in PPLP and made no further contributions to PPLP during that year. During 2015 Former Pieridae invested an additional \$750,000 in PPLP and increasing its ownership interest to 20% (Table 1, Table 2 and Figure 1). Pieridae is entitled to contribute an additional \$14,125,000 to PPLP prior to any further funding by the other partner, and to thereby increase its ownership in PPLP to 50%. In late 2015 ORLEN Upstream Canada Ltd. acquired Kicking Horse Energy Inc.

There is presently a government-imposed moratorium on the use of hydraulic fracturing in New Brunswick which effectively prevents any further exploration and development by PPLP of its natural gas resource properties in that province.

As of December 31, 2017 the Corporation held a 20% interest, as a limited partner, in PPLP and held a 50% interest, as a shareholder, in PPLP's general partner, Pieridae Production GP Ltd. The Corporation's interest in PPLP and in Pieridae Production GP Ltd. are accounted for in the Corporation's consolidated financial statements using the equity method. For more information, refer to note 8 to the Consolidated Financial Statements of the Corporation for the year ended December 31, 2017 filed on SEDAR.

TABLE 2: PPLP Land Holdings in New Brunswick As of December 31, 2017

Property	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST of PPLP (%)	NET AREA (ha)
	01-01	01/01/2014	6,376	100%	6,376
	01-01/27	02/01/2014	359	100%	359
	01-01/36	03/01/2014	359	100%	359
N D 1.1.	01-01/85 ijop	04/01/2014	90	100%	90
New Brunswick Property	01-01/86	05/01/2014	359	100%	359
	07-01	06/01/2014	5,032	100%	5,032
	07-03	07/01/2014	718	100%	718
	07-04	08/01/2014	1,077	100%	1,077
	TOTAL		14,371		14,371

#### **EXPLORATION LICENCES**

# Gaspésia Property

This block is 100 percent owned by the Corporation and is the western-most block located on the Gaspé Peninsula (Figure 1). It was acquired in 2002 as seven oil and gas exploration licences having a total surface area of 137,000 hectares (Table 3). The licences were converted to underground storage exploration licences (RS) as of April 28, 2009, thus extending their life. The block covers a part of the Connecticut Valley – Gaspé Synclinorium, showing a thick Silurian-Devonian sedimentary sequence lying over a highly deformed Cambrian-Ordovician substratum.

TABLE 3

PROPERTY	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST (%)	NET AREA (ha)
	2009RS226	04/28/2009	19,061	100%	19,061
	2009RS228	04/28/2009	18,580	100%	18,580
	2009RS229	04/28/2009	21,004	100%	21,004
Gaspésia - Property Licenses	2009RS230	04/28/2009	17,538	100%	17,538
"100% Pieridae"	2009RS231	04/28/2009	20,517	100%	20,517
	2009RS232	04/28/2009	20,577	100%	20,577
	2009RS236	04/28/2009	19,723	100%	19,723
	SUB-TOTAL		137,000		137,000

The Gaspésia Block is located in the northern half of the Connecticut Valley – Gaspé Synclinorium basin where important anticlinal structures and numerous fault traps are interpreted from surface geology and are also observed on existing seismic data within the Devonian and Silurian sections. Based on available geological, geochimical and geophysical data, this property has interesting gas and oil potential worthy of further exploration work. Thermal maturity studies indicate that the sedimentary section in the general area is gas prone but, locally, in the north-central part, it could still be in the oil window.

Following a geochemical survey by Vista Geosciences in 2009, the Corporation carried out a surface geochemical survey using a technology developed by Gore. The survey was conducted in February 2011. A detailed plan was developed to cover a significant lead found in Permit 2009RS228 with a pseudo-3D seismic survey. The objective of the survey is to confirm the existence and size of the prospect. At the end of the reporting period, a geophysical permit had been obtained. The Corporation has not conducted any major activities over the Gaspésia Property during the fiscal year ended December 31, 2014 as it has given higher priority to Anticosti projects and Haldimand projects. Work performed in the Matapédia Project to the south has tested a major anticline with a significant extension within the Gaspésia Property.

A 169.5 km<sup>2</sup> Pseudo 3D seismic survey is planned to define a major structure mapped with already acquired 2D seismic lines. The new survey is designed to confirm the structural closure. 1,090 km of Airborne Hydrocarbon Geochemical Sensing System survey and optional 1,194 km of Airborne Electromagnetic Survey are also planned to confirm the prospectively of this feature.

Though it was planned that those surveys would be acquired in 2017, the provincial permits necessary to proceed with such acquisition have not yet been obtained.

The exploration budget has been authorized by management and the Corporation is waiting for the legal authorizations in order to proceed. Pending on such authorizations, those surveys are planned for the summer and fall of 2018. Given positive results, the drilling of an exploratory well is tentatively forecast for the 2019 drilling season. The main objectives are the Val-Brilliant Silurian sandstones and Sayabec Silurian carbonates. This is a dry gas prospect.

# **Edgar Property**

This property is 100 percent owned by Pieridae and consists of three oil and gas exploration licences (PG) acquired in April 2006 (Table 4). The licences were converted to underground storage exploration licences (RS) as of April 28, 2009, thus extending their life. The property is located in the northeastern extension of the Gaspésia Block (Figure 1). Because of the interesting results obtained from a 2007 government thermal maturation study over this area, the Corporation acquired the exploration land over a large domal structure. The thermal maturation results indicate some parts of the property have potential for oil and gas preservation. Table 4 lists the three licences, which cover a total area of 50,010 hectares.

PROPERTY	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST (%)	NET AREA (ha)
Edgar - Property Licenses "100% Pieridae"	2009RS233	04/28/2009	21,157	100%	21,157
	2009RS234	04/28/2009	14,128	100%	14,128
	2009RS235	04/28/2009	14,725	100%	14,725
	TOTAL		50,010		50,010

**TABLE 4** 

Other than for geochemical sampling performed in February 2011, the Corporation has not conducted any major activities over the Edgar Block during the fiscal years ended December 31, 2014, 2015, 2016 and 2017 as it has given higher priority to projects in the eastern Gaspé region. The Corporation is evaluating the existing data and considering the resumption of active exploration on this property.

#### **Marcel Tremblay Property**

This property is 100 percent owned by Pieridae and consists of two oil and gas exploration licences (PG) acquired in July 2007 (Figure 1). It is located directly to the north of the Gaspésia Block and has a total surface area of 33,165 hectares (Table 5). The licences were converted to underground storage exploration licences (RS) as of April 28, 2009, thus extending their life.

Table 5

PROPERTY	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST (%)	NET AREA (ha)
Marcel Tremblay - Property	2009RS225	04/28/2009	19,563	100%	19,563
Licenses "100% Pieridae	2009RS227	04/28/2009	13,602	100%	13,602
	TOTAL		33,165		33,165

The Corporation has not conducted any major activities over the Marcel Tremblay Block during the fiscal years ended December 31, 2014, 2015, 2016 and 2017 as it had higher priority projects in the eastern Gaspé region. The Corporation is evaluating the existing data and considering the resumption of active exploration on this property.

# Matapédia and Ristigouche Property

The Matapédia Property is located south-east of the Lac Matapédia area, adjacent to the Gaspésia Property. The five licences of the property were initially acquired by Gastem in 2009. In 2013 the licences were acquired by the 50/50 joint venture between the Corporation and Saint-Aubin Énergie S.A.S. (Maurel & Prom and Maurel & Prom International).

Hydrocarbon shows have been recorded in the Matapédia sector (seeps in the northern section, microseeps, and subsurface liquid hydrocarbons) which would suggest that the area is favourable for oil, condensate, and dry gas accumulations.

A variety of work has been undertaken in the area since 2001, including seismic surveys (2001, 2009), geochemical surveys, (2007, 2008, and 2009) and an aeromagnetic survey (2011). Some of the rocks in the Matapédia sector represent potential reservoirs, including the Val-Brillant Formation, which is composed of sandstone with partially porous intervals. Shows of hydrocarbons have been recorded in the Val-Brillant Formation. A flat spot was also found in a seismic profile at the Val-Brillant/Sayabec doublet. Hydrothermal dolomites in the Sayabec Formation are another potential reservoir.

In September and October 2013, the Corporation drilled the core hole – La Vérendrye 2013, to confirm the presence of gas indicated by the well Great Plains Noël et al N°1 La Vérendrye drilled in 1972. The new slim hole well was cored through two reservoir targets: the Val Brilliant and the shallower Saint Leon formations.

Several down-hole samples were collected that confirmed the presence of gas in the low porosity sandstone reservoirs. As this was a test well it was abandoned as per regulations. The Corporation will continue to work up the data on this play to estimate the gas in-place and if a portion of this gas can be recovered. The low porosity nature of the reservoirs will most likely require some form of wellbore stimulation.

The Restigouche Property is located in the southern Gaspé Peninsula (Figure 1), on the north shore of Chaleur Bay and is included with the Matapédia Property. The seven licences of the property were initially acquired by Gastem in 2007. In 2013 the licences were acquired by the 50/50 joint venture between the Corporation and Saint-Aubin Énergie S.A.S. (Maurel & Prom and Maurel & Prom International).

Research indicates that some of the Restigouche area would be prospective for oil and condensate, while the other would be prospective for gas. Several formations in this area have been targeted as potential reservoirs, such as the White Head and the La Vieille Formation. The White Head Formation comprises fractured limestones in fresh fractures, emit strong odors suggesting a migration of hydrocarbons. The La Vieille Formation is, in turn, partially composed of hydrothermal dolomites. To the south in New Brunswick, asphaltene-rich solid bitumen (migrabitume) has been found in similar dolomites, indicating that there has been migration of hydrocarbons.

Seismic surveys were conducted in 2003 covering portions of the Restigouche Project area. In 2011, an aeromagnetic survey was conducted and an environmental study in advance of any future drilling. A structure seen on the seismic has been interpreted as a barrier reef complex in the West Point Formation. The reef complex of West Point elsewhere in cores have indicated locally preserved porosity, thus making this structure a potential target. The Corporation has additional studies to complete prior to any exploration drilling.

**TABLE 6** 

PROPERTY	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST (%)	NET AREA (ha)
	2009PG578	09/01/2009	14,254	50%	7,127
	2009PG579	09/01/2009	15,309	50%	7,655
	2009PG580	09/01/2009	19,007	50%	9,504
	2009PG581	09/01/2009	5,100	50%	2,550
	2009PG582	09/01/2009	21,000	50%	10,500
	2009PG583	09/01/2009	14,722	50%	7,361.0
Matapédia and Ristigouche -	2007PG939	10/23/2007	9,216	50%	4,608
Property Licenses "50% Pieridae"	2007PG940	10/23/2007	11,128	50%	5,564
	2007PG941	10/23/2007	13,439	50%	6,720
	2007PG942	10/23/2007	18,998	50%	9,499
	2007PG943	10/23/2007	18,200	50%	9,100
	2007PG944	10/23/2007	22,327	50%	11,164
	2007PG945	10/23/2007	6,576	50%	3,288
	TOTAL		189,276		94,638

# Gaspé Property

The Gaspé Property is located in the east-central part of the Gaspé Peninsula (Figure 1). Pieridae initially acquired these exploration licences from Junex in 2005 and has concentrated a large part of its exploration to date on this property. As a result of a June 8, 2010 asset exchange agreement with Junex and with the approval of the ministère des Resources naturelles et de la Faune (MRNF) (Quebec), Junex kept the totality of the revised licence 2005RS120 while Pieridae kept the totality of revised licences 2005RS111, 112 and 122 and within licence 2005RS123, all the area outside of the 900 hectares Haldimand Joint Lands. On December 20, 2011, Junex transferred its share on the Haldimand Block (900 ha) to Pieridae/Québénergie. On December 20, 2011, the Corporation announced that together with its partner Québénergie, they purchased all of the interests held by Junex in the Haldimand Joint Lands. On 23 October 2017, the Corporation has bought back Québénergie's interest in the Haldimand discovery area and the 13 exploration permits of the Gaspé Property (Block). With this transaction the Corporation acquired 100% ownership of the deposit with each owning equal shares in such deposit and the surrounding properties. The block is now comprised of 16 oil and gas (PG) and 5 underground reservoir (RS) exploration licences, covering some 3,434 km<sup>2</sup> (Table 7). A royalty of 5.0 percent on future production encumbers the following 11 licences on the Gaspé Block: 2005RS111, 2005RS112, 2005RS122, 2009PG496, 2009PG497, 2009PG498, 2009PG499, 2009PG502, 2009PG503, 2009PG504. 2009PG505.

**TABLE 7** 

PROPERTY	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST (%)	NET AREA (ha)
	2005RS112 <sup>(1)</sup>	11/21/2005	20,249	100%	20,249
	2005RS112 <sup>(1)</sup>	11/21/2005	19,539	100%	19,539
	2005RS123 <sup>(1)&amp;(2)</sup>	11/21/2005	23,043	100%	23,043
	2005RS123 <sup>(1)</sup>	11/21/2005	900	100%	900
	2009PG499 <sup>(1)</sup>	04/28/2009	10,634	100%	10,634
	2009PG502 <sup>(1)</sup>	04/28/2009	17,395	100%	17,395
	2009PG503 <sup>(1)</sup>	04/28/2009	22,901	100%	22,901
	2009PG505 <sup>(1)</sup>	04/28/2009	14,842	100%	14,842
Gaspé - Property Licenses	2009PG506 <sup>(1)</sup>	04/28/2009	12,369	100%	12,369
"100% Pieridae"	2009RS111 <sup>(1)</sup>	04/28/2009	9,415	100%	9,415
	2009PG511	04/28/2009	21,595	100%	21,595
	2009PG512	04/28/2009	24,873	100%	24,873
	2009PG518	04/28/2009	14,448	100%	14,448
	2009PG519	04/28/2009	16,695	100%	16,695
	2009PG520	04/28/2009	2,251	100%	2,251
	2009PG521	04/28/2009	17,353	100%	17,353
	2009PG522	04/28/2009	20,641	100%	20,641
	TOTAL		269,143		269,143
	2009PG496(1)	04/28/2009	17,898	51%	9,128
	2009PG497(1)	04/28/2009	24,120	51%	12,301
<b>Bourque - Property Licenses</b>	2009PG498(1)	04/28/2009	13,419	51%	6,844
"51% Pieridae"	2009PG499(1)	04/28/2009	18,830	51%	9,603
	TOTAL		74,267		37,876

<sup>(1)</sup> Subject to a royalty of 5.0 percent on future production

As a result of these modifications, the total area covered by the contract licences is now 343,410 hectares on a gross basis and 307,019 on a net basis.

The Gaspé Property is characterized by the presence of oil shows (about 60 known sites) in the Devonian sandstones and limestones, which explains the interest in this region by explorers for more than a century. Most of the early work involved shallow drilling and was lacking either a geological description or petrophysical well logs. Since 1970, better knowledge was acquired from the results of 9 wells and more than 600 km of seismic lines (including Pieridae's 105 km). The main exploration targets correspond to fractures zones in the upper Gaspé limestone or Gaspé sandstone. Other potential targets over the property are Siluro-Devonian reef features and Devonian or Silurian hydrothermal breccias in fracture zones near major faults.

The Corporation has identified and assigned different projects names to the various exploration areas within the Gaspé Property.

As of December 31, 2017, the Corporation has 5 (5 net) non-producing wells in place on Gaspé property property including 3 on Haldimand, one on Tar Point and one on Le Ber. The Corporation also has 4 (2.04 net) non-producing wells in place on Bourque.

<sup>(2)</sup> Haldimand underground reservoir license

# Haldimand Project

The Haldimand discovery was made by the Corporation in 2006 with the drilling of Haldimand No.1 which tested oil 53 °API from shaly sandstones within the York River Formation. The formation is characterized by low primary matrix porosity with open fractures. The second well Haldimand No. 2 was drilled in 2009 approximately 1000 meters to the northwest of the discovery well. Following the drilling of Haldimand No. 2, Sproule Associates Limited carried out an audit of the Corporation's resource estimate which classified the oil as a Contingent Resource. The Corporation subsequently drilled a horizontal well Haldimand No.4 drilled in 2014 to further assess the development of the resource using horizontal well technology and has been conducting tests on the horizontal well. A long-term production test on Haldimand No.4 was done in 2016.

The production test on Haldimand 4 resulted in the natural production, without artificial aid, of high-quality oil (API 53). But, even with intersecting the natural fracture network, it was observed that the formation is still with low permeability and productivity. Thus, in order to improve the productivity of the formation, The Corporation is working on developing a stimulation program for the future that would allow for optimal production of the Haldimand reservoir. This program will be presented to the Gaspé citizens' committee as well as representatives from the municipality.

Table 8, hereto included in Appendix A, presents the range of contingent resources and Petroleum Initially-In-Place estimates for the Haldimand Project as evaluated by Sproule. According to Sproule's report, the best estimate of the Discovered Petroleum Initially-in-Place (DPIIP) is 87,968 Mbbl. The best's un-risked estimates of the Contingent Resources are 12,354 Mboe (5,373 Mbbl of oil and 41,887 MMcf of conventional natural gas). The contingent resources are sub-classified as "Development Unclarified with a probability of development estimated at 37%. The best risked estimates is 4,571.1 Mboe (1,988.1 Mbbl of oil and 15,498.1 MMcf of conventional natural gas) (Risked =Best\*37).

# Bourque Project

The Bourque Project (Figure 1) was initiated in 2007 and is located in the northwestern portion of the Gaspé Property 30 km east of Murdochville and 50 km west of the town of Gaspé. This property consists of four licences, at the time 95 percent owned by the Corporation.

On August 5, 2008, the Corporation signed a \$20 million farmout agreement with Pilatus Energy Canada ("Pilatus"). This sum was to be invested in exploration and development work for the project. The first phase of the work, a three-dimensional (3D) seismic survey over an area of 65 km², was carried out during the summer of 2008. The seismic data acquired was processed at the end of 2008, with the data quality being very good. The interpretation of this new data was performed in early winter 2009, with the Corporation and its partner identifying several potential drilling targets and building as a result of a first drilling pad on the most promising site.

Unfortunately, the 2008-2009 global economic turmoil affected the partner's ability to assemble the capital required to go ahead with the drilling operations. The Corporation and Pilatus thus agreed to terminate the farmout agreement, with Pilatus keeping a 5 percent working interest in the Bourque Lands and maintaining its participation as shareholder of the Corporation. Subsequently, the holdings of Pilatus were reduced to 1 percent when it failed to meet certain contractual obligations. In January 2017, the Corporation bought back from Pilatus all its rights, titles and interest in the properties.

The Corporation requested and obtained in April 2012 from the Ministry of Natural Resources and Wildlife permits to drill two wells called Bourque N°1 and Bourque N°2. Concurrently, efforts to secure the financing of these two wells came to fruition. In May 2012 the Corporation completed equity financing with Investissement Québec for an amount of \$10 million, and with investors introduced by

National Bank Financial and Laurentian Bank for a total of \$5,750,003, such amounts providing sufficient funding to commit to a drilling rig and plan a drilling campaign in the second half of 2012.

In the first well, Bourque N°1, spudded on July 19, 2012, significant gas shows were encountered during the drilling. Eight (8) DST's were run over a gross interval of 1,700 metres.

The platform for the second well, Bourque N°2, was constructed during this period, and the drilling of this well started on October 31, 2012. The main target, a patch reef, was encountered and the well was drilled to a total deep of 2,678 metres. The main target, a pinnacle reef, was encountered at the bottom of the well.

In August 2015, Pétrolia announced that it had completed the reprocessing of the seismic data related to the Bourque Project and that it had developed a program for further technical work to assess the production capacity of the Forillon Formation in Bourque No. 1 and Bourque No. 2.

On November 6, 2015, Pétrolia confirmed the closing of a \$5,150,000 investment, the first phase of financing for the Bourque property. In this investment, the private placement of Ressources Québec reached \$2,881,800. Ressources Québec also invested \$918,200 in the Bourque property through a joint venture set up by the Corporation, with TUGLIQ Énergie. TUGLIQ Énergie's investment in the Bourque property, through the same joint venture, is \$1,350,000.

On July 15, 2016, Pétrolia confirmed the closure of the second phase of funding for the Bourque project by Ressources Québec, acting as agent of the Government of Québec, for a total amount of \$8,500,000. Following the completion of this second phase of financing for the Bourque property, the interests of the various companies in the joint venture amounted to 51.03% for Petrolia, 45% for Ressources Québec, and 3.97% for TUGLIQ Énergie.

A work program was drawn up for the re-entry of Bourque No. 1 and the directional drilling of a new 1,800 m lateral in the prospective zone of the Forillon Formation. This work was to be followed by the drilling of a new Bourque HZ No. 3 well, located on the same drilling pad, with a horizontal drain of 1,500 m to test the northern flank of an anticlinal structure located southeast of the pad. The drilling of the two wells was to be followed by the installation of temporary production equipment to enable the completion and subsequent production tests of both wells.

On September 26, 2016, Pétrolia announced the beginning of the drilling of the Bourque HZ No. 1 R1 (re-entry) well. The lower open hole section of the Bourque No. 1 well was permanently abandoned by setting 4 cement plugs in the 1,693 m to 2,746 m interval. The sidetracked section of the well was initiated by milling a window through the 95%" casing of the well, from 1,221 to 1,227 metres

From that window, the well was progressively deviated to the southwest down to measured depth of 1,641 metres (MD) corresponding to a true vertical depth (TVD) of 1,509 metres and the intermediate casing was set at 1,635 m MD (1,505 m TVD). The total measured drilling depth of the horizontal well is 3,450 metres. The drilling of the 1,815 m horizontal drain in the Forillon Formation was followed by logging operations. Completion equipment was installed in preparation for the acidification of the horizontal drain.

The drilling rig was then moved 53 m to the southeast, on the same platform, in order to drill the Bourque HZ No. 3 well. This new horizontal well was drilled to test the Forillon formation at a true vertical depth (TVD) of 1,297 metres. From that depth, a horizontal drain of 1,497 metres length was then drilled through the reservoir up to the total measured depth of 3,075 metres (MD).

After rig release, a coiled tubing unit was mobilized on the site and acidification of the horizontal section of the Bourque HZ No. 1 R1 was done followed by cleanup and tests. Because of the early onset of winter, no stimulation works was completed on Bourque HZ No. 3 well.

# Bourque HZ N°1 R1 main results

After having recovered 181 m³ of fluids used during the completion carried out in late 2016, the Bourque HZ No. 1 R1 well experienced, in its initial production period, a decrease of its gas flow to the surface from 40 400 to 4,700 m³/ day after 2 hours 20 minutes and, after 4 hours, down to a flow too small to be measured (TSTM). Its flow was made up of wet gas in which 120 litres of light oil (43.57 ° API) were recovered. The well was then closed for a 27-hour period for pressure buildup. After such period of closure and a 2,620 kPa head pressure, and before the two down-hole recorders were to be put in place, a static pressure gradient survey was performed (wells closed at the surface). This survey showed that the base of the production casing of Bourque HZ No. 1 R1 contains light oil (0.70 kg/l) from the measured depth of 1,625 m located near the entrance of the horizontal drain to the measured depth of 1,471 m (1,439 m TVD) which suggests an oil column at a vertical depth of 66 m. This oil column is topped by low pressure wet gas.

After a further 24-hour period of closure and a rise of head pressure to 3,128 kPa, the well was then put into production on a 6.25 mm ( $\frac{1}{4}$ ") flow-control valve for a period of eight hours. During runoff, the gas flow to the surface reached 5,080 m $^3$ / d to subsequently decrease to 1,180 m $^3$ / d at the end of the test period.

The analysis of the pressure buildup data reveals that the initial reservoir pressure is 9,065 kPa and at the end of the closure period it is 8,833 kPa. The well was subsequently left closed for a final pressure buildup with the two down-hole recorders until May 17, 2017 (3,740 hours). During the recovery of the down-hole recorders, a static pressure gradient survey was performed (wells closed at the surface). This survey indicated that the production casing is filled with light oil (0.72 kg/l) to a measured depth of 693m (686 m TVD), which corresponds to an oil column at a vertical depth of 819 m. This oil column is topped by low pressure wet gas.

The presence of an oil column that pulled up in the casing up to 686 m TVD indicates that Bourque HZ No. 1 R1 Forillon is a reservoir containing light oil and that the amount of associated gas may be less important than initially assessed. A specific depth sampling procedure is required to define the exact mix of light oil and gas condensate.

A diagnostic analysis of the log-log plot-flow regime identification has been performed on the pressure buildup data and a good agreement was obtained by applying a horizontal well in a dual porosity reservoir model. The shape of the derivative pattern suggests that the Bourque HZ No. 1 R1 reservoir is mostly made up of naturally fractured carbonate rocks and blocks of matrix porosity leading up to open fissures.

# Bourque Well HZ No. 3 main results

More than 88.3 m³ of fluid was injected in the Bourque HZ No. 3 well during cleanup operations, from the setup of coil tubing on December 16, 2016 up to the end of operations on December 20, 2016. 54.4 m³ of fluid was recovered in storage tanks. The difference, being 33.9 m³, was injected into the formation during these operations.

On December 20, 2016, a one-hour production test with a 6.25 mm (¼") flow-control valve produced flammable gas with an initial flow of 860 m³/d decreasing to a flow too small to be measured. After this production period, two down-hole recorders were lowered. The presence of a gas/fluid interface was detected at about 935 m. The well was then closed for a final pressure buildup until May 17, 2017 (representing 3,580 hours).

On May 17, 2017, during the removal of down-hole recorders, a static pressure survey was performed (wells closed at the surface). This survey shows that production casing is filled with water (1.06 kg/l) up to the measured depth of 536 m, which corresponds to a water column at a vertical depth of 762 m. This water column is topped with non-pressurized gas. Taking into account the open horizontal drain and the water column in the casing, the total volume is estimated at 34.5 m³, which corresponds to the remaining water/brine remaining in the well at the end of the stimulation test. The analysis of pressure buildup data reveals that the initial reservoir pressure of the Bourque HZ No. 3 well is approximately 8,234 kPa.

Table 9, 10 and 11 hereto attached in Appendix A presents the range of contingent, prospective resources and Petroleum Initially-In-Place estimates for the Bourque Project as evaluated by Sproule. According to Sproule's report, the best estimate of the Total Petroleum Initially-in-Place (TPIIP) for the pool volume is 827,000 Mbbl (Table 6). The Discovered Petroleum Initially-in-Place (DPIIP) is estimated at 62,000 Mbbl and the Undiscovered Petroleum Initially-in-Place (UPIIP) is estimated at 765,000 Mbbl.

For Pieridae Working Interest, the Total Petroleum Initially-in-Place (TPIIP) in the pool volume is 422,018 Mbbl. The Discovered Petroleum Initially-in-Place (DPIIP) is estimated for the Company at 31,639 Mbbl and the Undiscovered Petroleum Initially-in-Place (UPIIP) is estimated at 390,380 Mbbl.

The best estimate of the un-risked Contingent Resources for the pool volume is 5,714.7 Mboe (2,241.0 Mbbl of oil, 17,753 MMcf of conventional natural gas and 514.8 Mbbl of NGL). The best estimate of the Company un-risked Contingent Resources is 2,926.2 Mboe (1,143.6 Mbbl of oil, 9,059.6 MMcf of conventional natural gas and 262.7 Mbbl of NGL). The contingent resources are sub-classified as "Development Unclarified".

The best estimate of the un-risked Prospective Resources in the pool volume is 44,294.2 Mboe (16,062.0 Mbbl of oil, 144,287 MMcf of conventional natural gas and 4,184.3 Mbbl of NGL). The best estimate of the un-risked Company Prospective Resources is 22,603.3 Mboe (8,196.4 Mbbl of oil, 73,629.7 MMcf of conventional natural gas and 2,135.3 Mbbl of NGL). The Prospective Resource is sub-classified as prospective (Prospect).

A 30% chance of development risk (70% chance of not proceeding with development) is assigned by Sproule to Contingent Resources.

A 26% chance of commerciality risk (74% chance of not proceeding with development) is assigned by Sproule to Prospective Resources. This is the product of a 30 percent chance of development risk and a 90 percent chance of discovery risk.

The best estimate of the risked Contingent Resources for the pool volume is 1,714.4 Mboe (672.3 Mbbl of oil, 5,326 MMcf of conventional natural gas and 154.5 Mbbl of NGL). The best estimate of the Company risked Contingent Resources is 874.9 Mboe (343.1 Mbbl of oil, 2,717.9 MMcf of conventional natural gas and 78.8 Mbbl of NGL). The contingent resources are sub-classified as "Development Unclarified".

The best estimate of the risked Prospective Resources in the pool volume is 11,516.5 Mboe (4,176.1 Mbbl of oil, 37,515 MMcf of conventional natural gas and 1,087.9 Mbbl of NGL). The best estimate of the risked Company Prospective Resources is 5,876.9 Mboe (2,131.1 Mbbl of oil, 19,143.7 MMcf of conventional natural gas and 555.2 Mbbl of NGL). The Prospective Resource is sub-classified as prospective (Prospect).

# Haldimand Fairway Project

The Haldimand Fairway Project was conceived during 2008. It includes the areas located to the northwest and southeast of the Haldimand Project, in which Pieridae holds a 100 percent interest.

According to the Corporation these areas present geological characteristics resembling those observed in the Haldimand Field area. During the 2007-2008 financial year, Pieridae invested \$1.2 million in exploration work on this project to identify targets to be drilled. In December of 2008 the Corporation carried out an 83-kilometre 2D seismic program. As a result of this program, the Corporation split the project area into two projects, the first being Tar Point, which is the Southern Haldimand Fairway and constitutes the natural extension of the Pieridae- Haldimand N°1 area to the southeast, and Corte-Real to the northwest.

#### Tar Point (South)

In the Southern Haldimand Fairway, the results of the 2D seismic, combined with the surface geology and an aeromagnetic survey acquired by Pieridae in 2008, defined two drilling targets. This led to the selection of a site on a structure known as the Tar Point anticline, near Anse-à-Brillant, 18 km southeast of Gaspé. A well drilled on the anticline in 1950, about 2 km northwest of the proposed site, intersected traces of petroleum in the York River Formation (Devonian sandstones), with a strong gas show at the bottom, at a depth of about 2,155 m, in limestones of the Indian Cove Formation. Moreover, in a coastal section less than one kilometre from the proposed site, liquid petroleum has been observed in several open fractures of the York River Formation and in amygdules in a Carboniferous dyke.

The well Pieridae-Tar Point N°1, drilled from October 23 to December 7, 2009, reached a total depth of 2,434 m, intersecting in the process 1536 m of York River Formation, 619 m of Indian Cove Formation and, after going through a fault, drilling through 150 m of Grès de Gaspé. The following information was gathered from this well:

- 1. The upper section of the York River Formation does not contain any hydrocarbons on account of its shallow burial depth.
- 2. The lower section of the York River Formation contains indications of light oil with porosity and permeability characteristics similar to those found on the Haldimand Project.
- 3. In the Indian Cove Formation, two 100 m sections with open fractures have given numerous indications of hydrocarbons.

Following completion, the well is currently shut-in.

A DFIT carried out in November 2011, confirmed the possibility of increasing production with an appropriated stimulation program.

As of December 31, 2017, the Corporation has one non-producing wells in place on Tar Point property.

# Corte-Real (North)

In the Northern Haldimand Fairway, the seismic suggest the presence of reefs within the Chaleurs Group. The Northern Haldimand Corridor thus shows similarities to the Bourque Project. Reefal traps are very abundant in the Western Canadian Sedimentary Basin, and also in Ontario and Michigan, which further supports Pieridae's interest in this region. The old seismic data, combined with the new data acquired by Pieridae in 2008, should enable a drilling target to be identified in this area. The present estimate is that a well 2,000 metres deep would be necessary to reach the reef-bearing strata. The Corporation is looking for a partner to help explore this area and exploration of this area will depend on the results of the two Bourque wells.

# **Gastonguay Property**

The Gastonguay Property is located in the east-central part of the Gaspé Peninsula. It is subdivided into 13 oil and gas exploration licences (PG) covering an area of 259,015 hectares (Table 12).

On this property, which is located over large anticlinal structures, very little exploration has been done to date but the presence of oil and gas in fractures has been shown in the Murdochville skarn area in mining cores. Various exploration targets in Devonian and Silurian limestones and sandstones, at depths ranging from 1,000 to 4,000 metres, are expected. One well was drilled in the 1980s to a depth of 1,800 metres on one of the anticline; however, the deeper targeted Silurian was not reached.

**TABLE 12** 

PROPERTY	PERMITS	ACQUISITION DATE	GROSS AREA (ha)	WORKING INTEREST (%)	NET AREA (ha)
	2009PG494	28/04/2009	21,977	100%	21,977
	2009PG495	28/04/2009	23,278	100%	23,278
	2009PG500	28/04/2009	22,645	100%	22,645
	2009PG501	28/04/2009	21,284	100%	21,284
	2009PG507	28/04/2009	15,186	100%	15,186
	2009PG508	28/04/2009	18,496	100%	18,496
Gastonguay Property	2009PG509	28/04/2009	24,174	100%	24,174
Licenses "100% Pieridae"	2009PG510	28/04/2009	21,596	100%	21,596
	2009PG513	28/04/2009	17,483	100%	17,483
	2009PG514	28/04/2009	16,374	100%	16,374
	2009PG515	28/04/2009	18,057	100%	18,057
	2009PG516	28/04/2009	15,800	100%	15,800
	2009PG517	28/04/2009	22,665	100%	22,665
	TOTAL		259,015		259,015

## **EXPLORATION COSTS**

In the fiscal year ended December 31, 2017, the Corporation expended \$2,480,619 on exploration activities on its permits less exploration subsidies and a partner contribution of \$1,307,119. As of December 31, 2017, the Corporation had cumulative exploration expenditures on its oil and gas properties of \$75,389,905. The Corporation has met all of the required current financial obligations on all permits.

## WELLS DRILLED IN 2017

No wells were drilled in 2017. Completion work and Production tests have been done on Bourque HZ No. 1R and Bourque HZ No. 3.

## **INDUSTRY CONDITIONS**

#### GOVERNMENT REGULATIONS

The oil and gas industry in Canada is subject to extensive controls and regulations imposed by various levels of government. Oil and gas operations are subject to Canadian federal, provincial, territorial and local laws and regulations, which regulate, among other things, land tenure and the exploration, development, production, handling, storage, transportation and disposal of oil and gas, oil and gas byproducts and other substances and materials produced or used in connection with oil and gas operations. These laws and regulations may change in response to changing economic or political conditions.

Failure to comply with the laws and regulations may result in administrative, civil and criminal penalties, remedial obligations and injunctions that could delay, limit or prohibit certain operations. All laws and regulations are a matter of public record and Pieridae is unable to predict what additional laws, regulations or amendments may be enacted.

#### PRICING AND MARKETING

#### Natural Gas

The price of natural gas, and also oil, is determined by negotiations between buyers and sellers. Such price depends, in part, on natural gas quality, prices of competing natural gas and other fuels, distance to market, access to downstream transportation, length of contract term, weather conditions, the supply/demand balance and other contractual terms. Natural gas exported from Canada is subject to 28 regulations by the NEB and the government of Canada. Exporters are free to negotiate price and other terms with purchasers, provided that export contracts meet the criteria prescribed by the NEB and the government of Canada.

Natural gas exported from Canada is subject to regulation by the NEB and the Government of Canada. Exporters are free to negotiate prices and other terms with purchasers, provided that the export contracts must continue to meet certain other criteria prescribed by the NEB and the Government of Canada. Natural gas (other than propane, butane and ethane) exports for a term of less than two years or for a term of two to 20 years (in quantities of not more than 30,000 m3 per day) must be made pursuant to an NEB order. Any natural gas export to be made pursuant to a contract of longer duration (to a maximum of 25 years) or for a larger quantity requires an exporter to obtain an export licence from the NEB.

## NATURAL GAS LIQUIDS

In Canada, the price of Natural Gas Liquids ("NGL") sold in intraprovincial, interprovincial and international trade is determined by negotiation between buyers and sellers. Such price depends, in part, on the quality of the NGL, prices of competing chemical feed stock, distance to market, access to downstream transportation, length of contract term, the supply/demand balance and other contractual terms. NGL exported from Canada are subject to regulation by the NEB and the Government of Canada. Exporters are free to negotiate prices and other terms with purchasers, provided that the export contracts must continue to meet certain criteria prescribed by the NEB and the Government of Canada. NGL may be exported for a term of no more than one year in respect of propane and butane, and no more than two years in respect of ethane, all exports requiring an order of the NEB.

#### THE NORTH AMERICAN FREE TRADE AGREEMENT

The North American Free Trade Agreement ("NAFTA") among the governments of Canada, the United States and Mexico became effective on January 1, 1994. In the context of energy resources, Canada continues to remain free to determine whether exports of energy resources to the United States or Mexico will be allowed, provided that any export restrictions do not: (i) reduce the proportion of energy resources exported relative to the total supply of goods of the party maintaining the restriction as compared to the proportion prevailing in the most recent 36 month period; (ii) impose an export price higher than the domestic price (subject to an exception with respect to certain measures which only restrict the volume of exports); and (iii) disrupt normal channels of supply.

All three signatory countries are prohibited from imposing a minimum or maximum export price requirement in any circumstance where any other form of quantitative restriction is prohibited. The signatory countries are also prohibited from imposing a minimum or maximum import price requirement except as permitted in enforcement of countervailing and anti-dumping orders and undertakings. NAFTA requires energy regulators to ensure the orderly and equitable implementation of any regulatory changes and to ensure that the application of those changes will cause minimal disruption to contractual arrangements and avoid undue interference with pricing, marketing and distribution arrangements, all of which are important for Canadian oil and natural gas exports. NAFTA contemplates the reduction of Mexican restrictive trade practices in the energy sector and prohibits discriminatory border restrictions and export taxes.

On September 30, 2018, after a year of negotiation, the United States, Mexico and Canada reached a new trade agreement to be called the United States-Mexico-Canada Agreement ("USMCA"). The Corporation is currently assessing the impacts on this agreement and its activities.

#### THE COMPREHENSIVE AND PROGRESSIVE AGREEMENT FOR TRANS-PACIFIC PARTNERSHIP

In October 2015, Canada concluded negotiations for a free trade agreement between the members of the Trans-Pacific Partnership ("TPP"), which includes Canada, Australia, Brunei, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States and Vietnam. All 12 countries signed 29 TPP in 2016. However, in 2017, the United States withdrew from TPP and the remaining 11 countries agreed to try to revive the deal without United States participation. On March 8, 2018, representatives from the 11 remaining countries met in Santiago, Chile to sign the Comprehensive and Progressive Agreement for Trans-Pacific Partnership ("CPTPP"). Assuming the CPTPP comes into force, almost all tariffs between CPTPP member countries are expected to be reduced or eliminated, and non-tariff barriers to trade are expected to be removed.

# OTHER INTERNATIONAL AGREEMENTS

Canada has also pursued a number of other international free trade agreements with other countries around the world. As a result, a number of free trade or similar agreements are in force between Canada and certain other countries while in other circumstances Canada has been unsuccessful in its efforts. Canada and the European Union recently agreed to the Comprehensive Economic and Trade Agreement ("CETA"), which provides for duty-free, quota-free market access for Canadian oil and gas products to the European Union. Although CETA remains subject to ratification by certain national legislatures in the European Union, provisional application of CETA commenced on September 21, 2017.

While it is uncertain what effect CETA or any other trade agreements will have on the oil and gas industry in Canada, the lack of available infrastructure for the offshore export of oil and gas may limit the ability of Canadian oil and gas producers to benefit from such trade agreements.

#### LAND TENURE

Provincial and federal governments grant rights to explore for and produce oil and natural gas pursuant to leases, licenses, and permits for varying terms, and on conditions set forth in provincial legislation including requirements to perform specific work or make payments.

Continuing interests in petroleum and natural gas licences are earned by drilling wells. A lease is proven productive at the end of its initial term by drilling, producing, mapping, being part of a unit agreement or paying offset compensation. If a lease is proven productive, it will continue indefinitely beyond its initial term. The tenure comes to an end only when the holder can no longer prove its well is capable of producing oil or gas.

Many jurisdictions in Canada have legislation in place for mineral rights reversion to the Crown of stratigraphic formations that cannot be shown to be capable of production at the end of their primary lease term. In some provinces, energy companies are able to continue lease terms for non-productive lands if certain criteria are met under the relevant legislation.

Certain oil and natural gas mineral interests are privately-owned and rights to explore and produce on such lands are granted by leases on the terms and conditions negotiated between the landowner and the lessee.

# PRODUCTION AND OPERATION REGULATIONS

The oil and natural gas industry in Canada is highly regulated and subject to significant control by provincial regulators. Regulatory approval is required for, among other things, the drilling of oil and natural gas wells, construction and operations of facilities, the storage, injection and disposal of substances and the abandonment and reclamation of well-sites. In order to conduct oil and gas operations and remain in good standing with the applicable provincial regulator, the Corporation must comply with applicable legislation, regulations, orders, directives and other directions (all of which are subject to governmental oversight, review and revision, from time to time). Compliance with such legislation, regulations, orders, directives or other directions can be costly and a breach of the same may result in fines or other sanctions.

## PIPELINE CAPACITY

Despite some recent oil pipeline capacity expansions, the overall pipeline capacity in Canada is constrained. Notwithstanding limited pipeline capacity in Canada, Pieridae projects sufficient capacity for the foreseeable future considering the actual pipeline network with limited improvements.

# ROYALTIES

For crude oil, natural gas and related production from Crown lands, the royalty regime significantly impacts the profitability of production. Crown royalties are determined by governmental regulation and are generally calculated as a percentage of the value of the gross production. The value of production and the royalty rates generally depend on prescribed reference prices, well productivity, geographical location, the field discovery date and the type of product produced.

Provincial governments will, from time to time, adopt incentive programs designed to encourage oil and gas exploration and development activity and improve earnings and cash flow within the industry.

These programs may include royalty rate reductions, drilling credits, royalty holidays or royalty tax credits. Such programs are often of limited duration and target specified types of oil and gas activities.

#### Nova Scotia

Nova Scotia prescribed royalties on Petroleum products range from 2% to 50% according to the article 72(1) of the Offshore Petroleum Royalty Regulations made under Section 23 of the Offshore Petroleum Royalty Act.

# Québec

Before September 20, 2018, Quebec did not have a legislative and regulatory regime that is specific to the oil and gas industry. Its oil and gas resources were regulated principally under the province's mining laws and regulations pursuant to which royalty rates of 5 to 12.5% of the market value of petroleum and natural gas production apply, depending on the average daily production at the wellhead.

In December 2016, Québec passed An Act to implement the 2030 Energy Policy and amend various legislative provisions. This legislation included the new Petroleum Resources Act, which, once in force on September 20, 2018, replaced existing provisions of the Mining Act and established a licence and authorization system for the development of petroleum resources in Québec. Under Québec's new regulations to the Petroleum Resources Act, the royalty regime remains the same as under the Mining Act and its regulations.

## New Brunswick

New Brunswick uses a two-tier royalty regime for natural gas production. The basic royalty rate is equal to the greater of 4% of the wellhead price or 2% of gross revenues. After a project has recovered all its eligible costs and begins to make a profit, the producer must also pay 25% of the excess of revenues over eligible costs.

The royalty rate for NGL is 10% of gross revenues.

#### ENVIRONMENTAL REGULATIONS

The oil and natural gas industry is currently subject to environmental regulations pursuant to a variety of provincial and federal legislation, all of which is subject to governmental review and revision from time to time. Such legislation provides for, among other things, restrictions and prohibitions on the spill, release or emission of various substances produced in association with certain oil and gas industry operations, such as sulphur dioxide and nitrous oxide. In addition, such legislation sets out the requirements with respect to oilfield waste handling and storage, habitat production and the satisfactory operation, maintenance, abandonment and reclamation of well and facility sites. Compliance with such legislation can require significant expenditures and a breach of such requirements may result in suspension or revocation of necessary licenses and authorizations, civil liability for pollution damage, and the imposition of material fines and penalties. In addition to these specific, known requirements, future changes to environmental legislation, including anticipated legislation for air pollution and GHG emissions, may impose further requirements on operators and other companies in the oil and natural gas industry.

#### **Federal**

On a Federal level and pursuant the Prosperity Act, the Government of Canada amended or appealed several pieces of federal environmental legislation and in addition, created a new federal environment assessment regime. The changes to the environmental legislation under the Prosperity Act are intended to provide for more efficient and timely environmental assessments of projects that previously had been subject to overlapping legislative jurisdiction.

On June 20, 2016, the federal government launched a review of current environmental and regulatory processes. On February 8, 2018, the Government of Canada introduced draft legislation to overhaul the existing environmental assessment process and replace the NEB with the Canadian Energy Regulator ("CER"). Pursuant to the draft legislation, the Impact Assessment Agency of Canada (the "Agency") would replace the Canadian Environmental Assessment Agency. It appears that additional categories of projects may be included within the new impact assessment process, such as large-scale wind power facilities and in-situ oil sands facilities. The revamped approval process for applicable major developments will have specific legislated timelines at each stage of the formal impact assessment process. The Agency's process would focus on: (i) early engagement by proponents to engage the Agency and all stakeholders such as the public and indigenous groups prior to the formal impact assessment process; (ii) potentially increased public participation where the project undergoes a panel review; (iii) providing analysis of the potential impacts and effects of a project without making recommendations, to support a public-interest approach to decision-making, with cost-benefit determinations and approvals made by the Minister of Environment and Climate Change or the cabinet of the federal government; (iv) analyzing further specified factors for projects such as alternatives to the project and social and indigenous issues in addition to health, environmental and economic impacts; -44- and (v) overseeing an expanded follow-up, monitoring and enforcement process with increased involvement of indigenous peoples and communities. As to the proposed CER, many of its activities would be similar to the NEB, albeit with a different structure and the notable exception that the CER would no longer have primary responsibility in the consideration of the new major projects, instead focusing on the lifecycle regulation (e.g. overseeing construction, tolls and tariffs, operations and eventual winding down) of approved projects, while providing for expanded participation by communities and indigenous peoples. It is unclear when the new regulatory scheme will come into force or whether any amendments will be made prior to coming into force. Until then, the federal government's interim principles released on January 27, 2016 will continue to guide decision-making authorities for projects currently undergoing environmental assessment. The eventual effects of the proposed regulatory scheme on proponents of major projects remains unclear.

# Nova Scotia

Environmental laws in Nova Scotia are largely set out in the *Environment Act* which applies to LNG activities. Moreover, other provincial departments such as Lands and Forestry along with Department of Mines and Energy also have acts and subsequent regulations which apply to LNG and concern environment. In addition, federal departments and agencies have acts and legislation associated with LNG such as Transport Canada and Department of Fisheries and Oceans. Many environmental regulations fall under the umbrella of the Nova Scotia Environmental Assessment Approval process and applications for approval.

#### Québec

Environmental laws in Québec are largely set out in the *Environment Quality Act*, which requires parties looking to conduct certain commercial and industrial activities to first obtain a certification of authorization from the Québec Minister of Sustainable Development, Environment and Parks. The legislation is widely construed so as to include anyone erecting or altering a structure, undertaking to operate an industry, carrying on an activity, using an industrial process or increasing the production of any goods or services if it seems likely that this will result in an emission of contaminants or change the quality of the environment (with some exceptions). The *Environment Quality Act* applies to the majority of oil and gas operations in Québec.

In September 2017, Government of Québec released new draft regulations to the *Petroleum Resources Act*. This legislation and its regulations will, once in force, govern all oil and gas activities in Québec. These regulations cover oil and gas development on land and in bodies of water, licences for activities like exploration, development and storage and pipeline construction.

On September 20, 2018, Government of Québec adopted the new legislative and regulatory provisions pertaining to the exploration and exploitation of hydrocarbons in Québec, the *Petroleum Resources Act* and its regulations.

## New Brunswick

The New Brunswick Government's environmental laws are largely set out in its climate change action plan, which was released in December 2016, and the indefinite moratorium on hydraulic fracturing through the "An Act to Amend the Oil and Gas Act".

On February 26, 2016, the NB Commission released its report to the New Brunswick Government, which report sets forth the NB Commission's findings, reviews the potential impact of shale development in New Brunswick and identifies five options available to New Brunswick. These options are: (i) implement a legislated ban on hydraulic fracturing; (ii) maintain the moratorium; (iii) maintain the moratorium until there is in place an enhanced regulatory system, an independent research and monitoring program and sufficient public support to proceed with a government-sponsored exploration program similar to the federal/provincial agreements that led to oil and gas offshore developments in Nova Scotia and in Newfoundland and Labrador; (iv) remove the moratorium all or in part, with an enhanced regulatory system and an independent research and monitoring program; or (v) remove the moratorium with no changes to current regulations.

## **CLIMATE CHANGE REGULATIONS**

#### **Federal**

Canada has been a signatory to the United Nations Framework Convention on Climate Change (the "UNFCCC") since 1992. Since its inception, the UNFCCC has instigated numerous policy experiments with respect to climate governance. On April 22, 2016, 197 countries signed the Paris Agreement, committing to prevent global temperatures from rising more than 2° Celsius above pre-industrial levels and to pursue efforts to limit this rise to no more than 1.5° Celsius. As of February 1, 2018, 174 of the 197 parties to the convention have ratified the Paris Agreement. Following the Paris Agreement and its ratification in Canada, the Government of Canada pledged to cut its emissions by 30% from 2005 levels by 2030.

Additionally, on December 9, 2016, the federal government formally announced the Pan-Canadian Framework on Clean Growth and Climate Change. As a result, the federal government will implement a Canada-wide carbon pricing scheme beginning in 2018. This may be implemented through either a cap and trade system or a carbon tax regime at the option of each province or territory. The federal government will impose a price on carbon of \$10 per tonne on any province or territory which fails to implement its own system by 2018. This amount will increase by \$10 annually until it reaches \$50 per tonne in 2022 at which time the program will be reviewed.

In early 2018, the federal government released its legislative proposal for the federal carbon pricing system, entitled the Greenhouse Gas Pollution Pricing Act (the "GGPPA"). The GGPPA reinforces the approach taken in the PCF and is only intended to serve as a regulatory backstop in the event a province or territory does not otherwise implement an adequate provincial or territorial GHG regime.

To complement carbon pricing, a Clean Fuel Standard with the objective of achieving annual reductions of 30 Mt of GHG emissions by 2030 is being developed by the federal government. The standard would require reductions in the carbon footprint of the fuels supplied in Canada, based on life cycle analysis. The approach will not differentiate between crude oil types produced in or imported into Canada. This standard is expected to apply to a broad suite of fuels used in transportation, industry, homes and buildings.

In general, there is uncertainty with regard to the impact of federal or provincial climate change and environmental laws and regulations, as it is currently not possible to predict the extent of future requirements. Any new laws and regulations, or additional requirements to existing laws and regulations, could have a material impact on Pieridae's operations and cash flow.

#### Nova Scotia

Amendments to the Environment Act were passed in October 2017 and were proclaimed on February 15, 2018. Nova Scotia then adopted regulations on GHG emissions. The provincial rules related to the GHG reporting are set out in Quantification, Reporting, and Verification of Greenhous Gas Emissions Regulations and Standards of Quantification, Reporting and Verification of Greenhous Gas Emissions. The first set of regulations is now in effect and requires certain companies to report their GHG emissions and get them verified by a third party.

The amendments also allow government to create the cap and trade program and regulations to support it. Such cap and trade regulation would be designed to reduce greenhouse gas emissions by attaching a price or cost to emissions creating an incentive to reduce GHG emissions. The government of Nova Scotia has proposed a cap and trade program which is still under development and may come into force in 2019. Until the government finalizes the program the impact to the business cannot be quantified.

# Québec

Québec operates under its 2013-2020 Climate Change Action Plan, which calls for a 20% reduction in GHG emissions below 1990 levels by 2020. As part of this plan, the Québec Government passed the *Environmental Quality Act*, which empowers the government to set emission limits, establish reporting requirements for GHG emitters and establish a cap-and-trade system.

Regulations to the *Environmental Quality Act* established Québec's cap-and-trade system in 2012. Under this system, the province sets GHG reduction targets and businesses that emit 25,000 tonnes or more of carbon dioxide equivalent per year must cover their GHG emissions with an equivalent number of emissions allowances (in the form of emission units, offset credits or early reduction credits). Québec awards a number of free emission units, primarily to industrial emitters exposed to foreign competition. However, the number of units allocated free of charge drops 1-2% per year. Emitters with GHG emissions in excess of the number of units allocated must purchase emissions allowances at auctions or on the carbon market. Emitters with reduced GHG emissions can sell their excess allowances on the carbon market.

In September 2017, Québec signed a cap-and-trade linking agreement with Ontario and California, which came into force on January 1, 2018. This agreement replaces a former agreement between just Québec and California and it allows any allowances issued by any of the three parties to be accepted by any of the three cap-and-trade programs. The first joint auction of allowances from Ontario, Québec and California was in February 2018.

Québec's comprehensive Energy Policy 2030 ("Policy 2030") seeks to significantly alter Québec's energy profile by 2030 through five demanding targets: enhance energy efficiency by 15%, reduce the amount of petroleum products consumed by 40%, eliminate the use of thermal coal-based energy, increase overall renewable energy output by 25% and increase bioenergy production by 50%. Policy 2030 has a budget of more than \$4 billion over 15 years and will involve the implementation of numerous new regulations.

In December 2016, the Québec Government passed An Act to implement the 2030 Energy Policy and amend various legislative provisions. This legislation includes the Petroleum Resources Act, which, once in force, will replace existing provisions of the Mining Act and establish a licence and authorization system for the exploration, production, and storage of petroleum. It also created Energy Transition Québec, an agency charged with implementing Québec's 2030 target of reducing GHG emissions to 37.5% below 1990 levels.

In March 2017, the Québec Government amended the *Environment Quality Act*. The amendments, some of which took effect immediately and some of which will come into force over the next two years, will substantially impact the environmental assessment procedure and authorization of industrial projects in Québec.

#### New Brunswick

In December 2016, New Brunswick released a climate change action plan, transitioning to a Low-Carbon Economy. Pursuant to this plan, the province intends to create a carbon pricing system and introduce caps on GHG emissions that reflect the realities of the New Brunswick economy. Other initiatives under the plan include the phasing out of coal as a source of electricity, investing in new pollution-reduction technology, and increasing progress reporting and oversight by government committees.

In December 2017, New Brunswick introduced the *Climate Change Act* in its legislature. This legislation, if passed in its current form, will introduce a modified carbon pricing system. New Brunswick will deliver the carbon tax aspect of the pricing system by simply redirecting existing taxes on gasoline and diesel to fund programs that combat climate change. The legislation also allows for New Brunswick to enter an agreement with the federal government whereby the federal backstop standard will be applied to large emitters in New Brunswick. Under this legislation, New Brunswick aims to reduce GHG emissions to 14.8 megatonnes by 2020, 10.7 megatonnes by 2030 and 5 megatonnes by 2050. It is unclear whether or not this carbon pricing system will meet the federal backstop standard.

Even without the *Climate Change Act*, New Brunswick has already met its 2020 emissions reduction goal, which was a 35% reduction from 1990 levels. It has also met the Paris Agreement's 2030 goal of a 30% reduction from 2005 levels.

#### ACCOUNTABILITY AND TRANSPARENCY

The federal Extractive Sector Transparency Measures Act (the "ESTMA") imposes mandatory reporting requirements on certain entities engaged in the commercial development of oil, gas or minerals, which includes exploration, extraction and holding permits to explore or extract. All companies subject to ESTMA are required to report payments over \$100,000 made to any level of a Canadian or foreign government, including royalty payments, taxes (other than consumption taxes and personal income taxes), fees, production entitlements, bonuses, dividends (other than ordinary dividends paid to shareholders) and infrastructure improvement payments. These categories are distinct; regardless of the aggregate payment amount, one or more individual categories must reach the \$100,000 threshold for reporting to be required.

Any persons or entities found in violation of the ESTMA (which includes making a false report, failing to make the report public or failing to maintain records for the prescribed period) can be fined up to \$250,000 for each day that the offence continues. There is a further fine of up to \$250,000 for any person or entity who has structured payments in order to avoid the obligation to report such payments under the ESTMA. Officers or directors who authorized or acquiesced in the commission of an offence can be subject to personal liability, regardless of whether the entity for which they acted has been prosecuted or convicted. The ESTMA contains a due diligence defence whereby no person will be found guilty of an offence under the ESTMA if the person can establish that he or she exercised due diligence to avoid committing the offence. Additionally, there is a five-year limitation period (from the time when the subject matter of the proceeding arouses) within which proceedings must be brought for offences under the ESTMA.

## **RISK FACTORS**

# RISKS INHERENT TO THE INDUSTRY

This includes risks normally incident to the natural gas and LNG industries, including the fact that such industries are competitive, and the Corporation competes with numerous other participants to attract and retain customers for its LNG production. There is no assurance that the Corporation will be able to negotiate LNG sales and purchase agreements with new customers on favourable terms, that Uniper Global Commodities S.E. ("Uniper") will not terminate the LNG Sale and Purchase Agreement in accordance with its terms, that potential customers (including Uniper) will be able to satisfy their obligations under such purchase and sale agreements, of which the Corporation will be substantially dependent upon, and that the Corporation will be able to procure a sufficient long-term supply of natural gas and long-term pipeline transportation capacity for use in the production of LNG.

It also includes risks inherent to the oil and natural gas exploration industry, such as the requirement of additional financing to support its operations. The Corporation will also compete with other companies that have greater financial resources in the context of business opportunities to participate in promising projects. There are natural risks that could cause damage to the environment, accidents or other unforeseen conditions that could result in damage to the properties of the Corporation or to properties owned by third parties which could lead to potential liability toward third parties. There can be no assurance that the development projects and exploration activities that may be implemented in the future will result in reserves or that the Corporation will succeed in drilling productive wells at low exploration costs. Nothing allows planning with certainty the impact that controls and regulations established by the various levels of government will have on the Corporation's operations, including with respect to the hydraulic fracturing process. Oil and natural gas exploration and development activities in Canada may be subject to opposition from ecologist, environmentalist, aboriginal and even political groups, and some properties may be subject to land claims by First Nations. Access restrictions may affect the Corporation's ability to procure drilling and related equipment and may delay any exploration and development activities.

# ADDITIONAL FINANCING

The Corporation will require additional financing to support its operations. A source of future funds available to the Corporation is the issuance of additional shares. The Corporation's operations may also be financed in whole or in part with debt, a partnership agreement or a sale of an interest in an oil or natural gas property. Debt financing may increase the Corporation's debt levels above industry standards. Depending on future development and exploration plans, the Corporation may require additional equity and/or debt financing that may not be available or available on favourable terms. The level of the Corporation's indebtedness that may occur from time to time could impair the Corporation's ability to obtain additional financing in the future on a timely basis to take advantage of business opportunities that may arise. Financing by way of a partnership or sale of an interest may reduce the interest held by the Corporation in the properties in respect of which the financing is obtained. There can be no assurance that such financing will be available to the Corporation. Furthermore, even if such financing is successfully secured, there can be no assurance it will be obtained on terms favourable to the Corporation or provide the Corporation with sufficient funds to meet its objectives, which may adversely affect the Corporation's business and financial position. If financing is obtained by issuing additional equity, control of the Corporation may be affected.

# FLOW-THROUGH SHARES FINANCING

Before the amalgamation, Pétrolia was financed in part by the issuance of flow-through shares for which Pieridae has commitments to fullfil in 2018. Although Pieridae has taken all the necessary measures in this regard, there is no guarantee that the Corporation will receive autorization and permits from government for completing the planned work. As a result, there is a risk that it will not incur sufficient exploration expenses to fully meet its undertaking to the subscribers of flow-through shares.

#### **COMPETITION**

The LNG, oil and natural gas industry is extremely competitive. The Corporation competes with other companies that have ongoing LNG projects. Competition may affect the Corporation's ability to land customers, obtain sufficient supply or access to transportation.

# **ENVIRONMENTAL ISSUES**

The LNG, oil and natural gas operations involve natural risks that could cause damage to the environment or other unforeseen conditions that could result in damage to the properties of the Corporation or to properties owned by third parties which could lead to potential liability toward third parties. The industry is subject to extensive environmental local, provincial and federal legislations providing restrictions and prohibitions on the emissions or release of certain substances produced in various activities within this industry. In addition, the legislation requires that land, wells and facility sites that are abandoned be reclaimed to the satisfaction of government authorities at the end of the licence validity period.

Compliance with environmental legislation can require significant expenditures and failure to comply with these laws and regulations may result in the assessment of fines and penalties, orders to remediate property contamination and the issuance of injunctions that could limit or prohibit our operations, all of which could have a material impact on Pieridae. The discharge of oil, natural gas or other pollutants into the air, soil or water may give rise to liabilities to governments and third parties and may require Pieridae to incur costs to remedy such discharge. It is likely the trend to stricter environmental legislation will continue. Changes in environmental laws and regulations may be enacted which could impose higher environmental standards which may increase the cost of Pieridae's operations and have a material adverse effect on our business, financial condition, results of operations and cash flows. No assurance can be given that future environmental laws and regulations will not adversely impact Pieridae's ability to develop or operate its properties.

Pieridae believes that it is in material compliance with applicable environmental legislation and is committed to continued compliance. Pieridae believes that it is reasonably likely a trend towards stricter standards in environmental legislation will continue and the Corporation anticipates making increased expenditures of both a capital and an expense nature as a result of increasingly stringent environmental laws, and such legislation may have a material adverse effect on its business, financial condition, results of operations and cash flows.

See "Industry Conditions – Environmental Regulation" in this Annual Information Form.

# OIL AND NATURAL GAS PRICES

The Corporation's operating results and financial position are partly dependent on the prices obtained for its eventual production. There have been significant fluctuations in LNG, oil and natural gas prices in recent years. These prices are based on international supply and demand, as well as other factors, such as climate, general economic conditions and conditions in other oil and natural gas producing regions, which are beyond the Corporation's control. Any change in LNG, oil and natural gas prices could have material adverse effects on the Corporation's business and financial position.

## **DEVELOPMENT OF RESERVES**

The future success of the exploration work will depend on Corporation's ability to discover or acquire oil and natural gas reserves that are economically recoverable. The Corporation will find or acquire reserves only if it conducts successful exploration or development activities, concludes joint ventures and/or acquires properties containing proven reserves. There can be no assurance that the development projects and exploration activities that may be implemented in the future will result in reserves or that the Corporation will succeed in drilling productive wells at low exploration costs. If prevailing LNG, oil and natural gas prices were to increase significantly, the Corporation's exploration costs to find or acquire reserves would be expected to increase. Drilling oil wells involves a high degree of risk especially the risk of a dry hole or of a well that is not sufficiently productive to provide a return on the capital expended to drill the well. Thus the LNG facility supply and the Corporation's financial situation could be impacted by these factors. As at December 31, 2017, no oil or natural gas reserves have been assigned to any of the properties in which Pieridae has an interest.

#### INSURABLE RISKS

Where possible, the Corporation will purchase liability insurance that will insure against risks and provide coverage in accordance with industry standards. The Corporation or the other entities in which the Corporation will invest can suffer damages resulting from incidents such as fires, blowouts, geological formation damage, oil spills as well as personal injury, against which they may not be insured or they may choose not to be insured in light of high premium costs or other reasons. In addition, indemnities could exceed the policy limits. The costs of repairing such damages or paying such indemnities could cause the ongoing operation of the Corporation's business to become unprofitable and/or impossible.

#### CONFLICTS OF INTEREST

Certain directors of the Corporation serve on the boards of other corporations engaged in natural resource exploration and development operations. Such ties could give rise to conflicts of interest. In making any decisions involving the Corporation, these directors will satisfy their duties and obligations to deal fairly and in good faith with the Corporation and the other entities. In addition, these directors will disclose their interest and refrain from voting on any matter that could give rise to a conflict of interest.

# PERMITS, LICENCES AND APPROVALS

The Corporation's business requires permits and licences from government authorities. There can be no assurance that the Corporation will obtain all the permits and licences required to continue exploration operations. In addition, if the Corporation commences commercial operation of property, it must obtain and comply with all the necessary permits and licences. There can be no assurance that the Corporation will be able to obtain or comply with the requirements of such permits and licences.

#### TITLE TO PROPERTY

While the Corporation has taken reasonable steps to ensure it has good and valid title over its properties, there can be no assurance that title to such properties will not be disputed or challenged. Third parties may have valid claims with respect to the Corporation's properties.

## LITIGATION

The Corporation may be held liable for pollution or for other risks for which it cannot be insured or for risks it may choose not to insure in light of high premium costs or other reasons. Payments of amounts in respect thereof may result in the loss of assets of the Corporation.

# **REGULATORY IMPACT**

The LNG, oil and natural gas industry is subject to controls and regulations established by local, provincial and federal governments with respect to prices, royalties, land tenure, production quotas, imports and exports of LNG, oil, natural gas and environmental protection.

Nothing allows us to plan with certainty the impact that these control measures and regulations and their amendments will have on the Corporation's operations. The industry is subject to environmental regulations pursuant to a variety of provincial and federal legislation. These legislations provides restrictions and prohibitions on the emission or release of various substances produced or used in association with certain production activities within the industry and which affect the costs and location of wells and facilities and the extent to which activities are authorized. In addition, the legislation requires land, wells and facility sites that are abandoned to be reclaimed to the satisfaction of provincial authorities. Any breach of such legislation may result in the imposition of fines and penalties, suspension or revocation of necessary licences, permits and authorizations to operate a business and enforcement of civil liabilities for pollution damages. In Québec, environmental issues are governed mainly by the Environment Quality Act (Québec). The act imposes obligations with respect to the environment, disclosure and monitoring. Furthermore, the law sets forth an impact study and broader public consultation process regarding environmental assessment and law enforcement issues. In Nova Scotia, environmental issues are governed mainly by the Environment Department and the Environment Policy Documents, the environmental acts, legislations and regulations. There are also Agencies, Boards and Commissions regarding the environment which have legal authority to exercise power over people or an activity and function independent of Government. Their powers may include licensing, advising a Minister, rule and policy making, and issuing approvals

The royalty program implemented by each province is a significant factor in the profitability of LNG, oil and natural gas production. Royalties payable on output are determined by government regulation; they are calculated as a percentage of the gross value of output and, typically, the rate of royalties payable depends in part on the prescribed benchmark price, well productivity, geographical location, field discovery date and the type or quality of the resource produced.

See "Industry Conditions" in this Annual Information Form.

# HYDRAULIC FRACTURING

The hydraulic fracturing process gives rise to concerns in communities particularly with respect to the drilling fluids used in the fracturing process and their effects on the aquifer, water use in connection with operations, the capability to recycle such water and the seismic effects associated with the process. A number of Canadian provincial governments are currently reviewing aspects of the scientific, regulatory and political framework in which the hydraulic fracturing operations are carried out. At present, most of these governments are taking part in the collection, review and assessment of technical information regarding the hydraulic fracturing process. Pursuant to the new hydrocarbon legislative framework adopted in December 2016 and in force since September 20, 2018, Québec legislation requires that wells and facility sites be built, operated, maintained, abandoned and restored to the satisfaction of the applicable regulatory authorities. The new MERN regulations governing how hydraulic fracturing is carried out under the Petroleum Resources Act. The Ministère du Développement Durable, de l'Environnement et aux Changements Climatiques is also reviewing its main law, the Loi sur la Qualité de l'Environnement and some of its related regulations in conjunction with the MERN. In province of Québec, hydraulic fracturing is now prohibited in the geological formation named Utica shale in the St. Lawrence Lowlands area. Fracturing in any other geological formation is only permitted at a depth greater than 1,000 meters from the surface.

The government of Nova Scotia has banned hydraulic fracturing since November, 2014. The government of New Brunswick has also a ban on hydraulic fracturing.

Although the Corporation has no way of predicting the impact of any potential regulations on its business, the implementation of new laws, regulations, permits or licences regarding the use or disposal of water, or hydraulic fracturing in general, could increase the Corporation's compliance costs and the operating and exploration costs of its properties, the litigiation risk and environmental liability of the Corporation and, in turn, adversely impact the future prospects of the Corporation and its financial position.

# POLITICAL AND SOCIAL RISK

LNG, oil and natural gas exploration and development activities may be subject to opposition from ecologist, environmentalist, aboriginal and non governmental groups. Demonstrations or acts of civil disobedience could have an impact on the Corporation's business. There can be no assurance that such activities will not target projects in which the Corporation holds an interest. Similarly, there can be no assurance as to any attitude or behaviour of a political party or a political group (whether municipal, provincial or federal) that could have an impact on the Corporation's business.

## LAND CLAIMS

Some properties may be subject to land claims by First Nations. There can be no assurance that such land claims will not be made against properties in which the Corporation holds an interest.

# AVAILABILITY OF DRILLING EQUIPMENT AND ACCESS

Oil and natural gas exploration and development activities are dependent on the availability of related equipment, more specifically in the areas in which such activities are carried out. Demand for such equipment or access restrictions may affect the Corporation's ability to procure such equipment and may delay any exploration and development activities.

## **GROWTH MANAGEMENT**

The Corporation may be subject to growth risks including limitations and pressure on its internal control systems and measures. The Corporation's ability to manage growth effectively will require it to continuously implement and improve its operating and financial systems and expand, train and manage its core workforce. The Corporation's inability to support such growth could have a material adverse impact on its business, operations and prospects.

# INTERNATIONAL PROTOCOLS

Canada has signed international protocols and conventions setting forth certain environment requirements that may adversely affect the Corporation's business. See "Industry Conditions" in this Annual Information Form.

# SHARE PRICE VOLATILITY

The price of common shares is subject to changes owing to numerous factors beyond the Corporation's control, including reports pertaining to new information, changes in the Corporation's financial position, sales of the Corporation's shares in the market, Corporation announcements or LNG, oil and natural gas prices. There can be no assurance that the market price of the Corporation's shares will be protected from such fluctuations in the future.

#### CLIMATE CHANGE REGULATIONS

Climate change policy is evolving at regional, national and international levels, and political and economic events may significantly affect the scope and timing of climate change measures that are ultimately put in place. Current greenhouse gas ("GHG") emissions legislation has not resulted in material compliance costs, however, it is not possible at this time to predict whether proposed legislation or regulations will be adopted, and any such future laws and regulations could result in additional compliance costs or additional operating restrictions.

Adverse impacts to the Corporation's business as a result of comprehensive GHG legislation or regulation applied to the Corporation's business in Alberta or any jurisdiction in which the Corporation operates, may include, but are not limited to: (i) increased compliance costs; (ii) permitting delays; (iii) substantial costs to generate or purchase emission credits or allowances adding costs to the products the Corporation produces; and (iv) reduced demand for crude oil and certain refined products. Emission allowances or offset credits may not be available for acquisition or may not be available on an economic basis. Required emission reductions may not be technically or economically feasible to implement, in whole or in part, and failure to meet such emission reduction requirements or other compliance mechanisms may have a material adverse effect on the Corporation's business resulting in, among other things, fines, permitting delays, penalties and the suspensions of operations.

The Corporation's analysis suggests that it will remain financially resilient over the long-term under a range of climate policy scenarios. However, beyond existing legal requirements, the extent and magnitude of any adverse impacts of any additional programs or additional regulations cannot be reliably or accurately estimated at this time because specific legislative and regulatory requirements have not been finalized and uncertainty exists with respect to the additional measures being considered and the time frames for compliance. See "Industry Conditions – Climate Change Regulation" in this Annual Information Form. Consequently, no assurances can be given that the effect of future climate change regulations will not be significant to the Corporation.

## DIVIDENDS AND DIVIDEND POLICY

Pétrolia declared a special dividend on its common shares in a total amount of \$9,011,998.20 (or \$0.083041 per Pétrolia share based on 108,524,683 shares issued and outstanding at the time) to its shareholders of record as of October 20, 2017. This special dividend was paid concurrently to the closing of the Arrangement on October 24, 2017.

The Corporation's dividend policy consists in retaining its earnings in order to finance future growth. As a result, the Corporation has no intention of paying dividends in the foreseeable future. Any future decision to pay dividends will be at the discretion of the board of directors and will depend on the financial position of the Corporation, its results of operations and its capital requirements and such other factors as the board of directors considers relevant.

# **DESCRIPTION OF SHARE CAPITAL**

The authorized capital of the Corporation consists of an unlimited number of common shares without nominal value of which 50,572,765 were issued and outstanding on the date of this information form. The common shares do not carry any exchange, exercise, conversion, redemption or retraction rights.

The holders of the common shares are entitled to one vote per share at all meetings of shareholders of the Corporation and are entitled to dividends, if and when declared by the directors of the Corporation, and to the distribution of the residual assets of the Corporation in the event of the liquidation, dissolution or winding-up of the Corporation.

# MARKET FOR SECURITIES

The common shares of the Corporation are listed on the TSX Venture Exchange (the "TSX-V") under the symbol "PEA".

The following table sets forth the reported price range and trading volume of the Common Shares on the TSX-V for the periods indicated.

	Price	Range <sup>(1)</sup>		
	High (\$/share)	Low (\$/share)	Volume <sup>(1)</sup>	
2017				
August	0.00	0.00	0	
September	0.00	0.00	0	
October	0.46	0.30	19,794,957	
November	5.50	2.69	2,250,322	
December	4.47	3.03	2,851,274	
2018				
January	5.50	4.15	3,013,356	
February	5.95	4.30	565,339	
March	5.58	4.51	213,576	
April	4.98	4.25	218,652	
May	4.95	4.41	232,500	
June	4.80	4.21	151,497	
July	4.45	3.00	1,500,377	
August	4.49	3.13	1,228,573	
September	3.87	3.00	408,942	
October	4.50	3.30	580,446	
November	4.55	3.33	376,500	
December 1-4	4.31	3.80	30,400	

<sup>(1)</sup> For periods prior to November 2, 2017, the price range and trading volume provided is for Pétrolia common shares traded or quoted on reported by the TSXV. Trading was halted during August 2017 and September 2017 pending completion of the Pétrolia Arrangement. Trading resumed on October 4, 2017 and was halted on October 16, 2017 pending completion of matters in connection with the Pétrolia Arrangement (including a special dividend and share consolidation). On November 2, 2017 trading of Pieridae Shares commenced on an ex-dividend and post-consolidated basis.

<sup>(2)</sup> On December 4, 2018, the last trading day prior to the date of this document, the closing price of the Pieridae Shares on the TSXV was \$4.05

# **PRIOR SALES**

The following table discloses the securities of the Corporation that have been issued in the 12 months prior to the date of this Information Form (all numbers are on a post-consolidation basis).

Date of Issuance	Issue Price per Pieridae Share <sup>(1)</sup>	Number of Pieridae Shares Issued <sup>(1)</sup>
2017		
October 4 <sup>(5)</sup>	\$4.08	53,306
October 20 <sup>(4)</sup>	\$5.67	1,100,935
October 24 <sup>(2)</sup>	\$2.21	661,725
November 3 <sup>(2)</sup>	\$1.98	6,250
November 3 <sup>(2)</sup>	\$2.64	6,250
December 4 <sup>(2)</sup>	\$1.98	1,875
December 13 <sup>(2)</sup>	\$0.45	661,725
December 22 <sup>(2)</sup>	\$0.45	11,028
2018		
January 3 <sup>(2)</sup>	\$1.98	2,604
January 8 <sup>(2)</sup>	\$1.98	1,875
January 10 <sup>(2)</sup>	\$1.98	3,906
January 10 <sup>(2)</sup>	\$2.64	2,083
January 24 <sup>(2)</sup>	\$1.98	156
January 29 <sup>(2)</sup>	\$1.98	3,906
January 29 <sup>(2)</sup>	\$2.52	3,125
February 26 <sup>(2)</sup>	\$4.08	18,750
April 5 <sup>(2)</sup>	\$1.98	5,208
April 5 <sup>(2)</sup>	\$2.52	2,083
April 25 <sup>(2)</sup>	\$1.98	2,500
May 8 <sup>(3)</sup>	\$4.90	19,766
June 21 <sup>(2)</sup>	\$1.98	1,302
June 27 <sup>(2)</sup>	\$1.98	1,302
Oct 19 <sup>(6)</sup>	\$4.18	21,960
Nov 8 (2)	\$2.64	1,042

<sup>(1)</sup> Issue Price per Pieridae Share and Number of Pieridae Shares Issued are on a post-consolidation basis, subsequent to the amalgamation of Pieridae and Pétrolia.

<sup>(2)</sup> Issuances related to the exercises of stock options.

<sup>(3)</sup> Pieridae Shares issued to employees in accordance with Pieridae's RRSP matching policy.

<sup>(4)</sup> Pieridae Shares issued in regards to the conversion of a US\$5,000,000 convertible loan.

<sup>(5)</sup> Pieridae Shares issued to current and former employees of Pieridae as partial payment for bonuses earned by such employees prior to issuance of Pieridae Shares.

<sup>(6)</sup> Pieridae Shares issued to directors in accordance with Director Compensation Policy.

Below is a list of the unlisted securities of the Corporation issued during the current fiscal year, including price per security, quantity issued and date of issuance.

Stock Options								
Quantity of Stock   Exercise Price   Issuance Date   Expiry								
Options	\$							
1,007,400	5.67	January 29, 2018	January 28, 2023					
125,000	5.67	June 27, 2018	June 27, 2023					
10,000	5.67	September 6, 2018	September 6, 2023					

## **ESCROWED SECURITIES**

# TOTAL ESCROWED SECURITIES

Below is a description of the total Corporation's securities that are currently held in escrow.

Designation of Class	Number of Securities Held in Escrow <sup>(1)</sup>	Percentage of Class
Common Shares	11,424,027	22.59%
Stock Options	810,433	28.91%
Warrants <sup>(2)</sup>		

<sup>(1)</sup> Computershare Trust Company of Canada acts as depositary for the above securities held in escrow.

## TIER 2 SURPLUS ESCROWED SECURITIES

Below is a description of the Corporation's securities that are currently held in escrow in accordance with the terms of a Tier 2 surplus security escrow agreement (the "TSXV Surplus Escrow Agreement").

Designation of Class	Number of Securities Held in Escrow <sup>(1)</sup>	Percentage of Class
Common Shares	9,851,806	19.48%
Stock Options	705,840	25.18%

<sup>(1)</sup> Computershare Trust Company of Canada acts as depositary for the above securities held in escrow. The TSXV Surplus Escrow Agreement provides for a release of 5% of the escrowed securities six months after the time of the final Exchange notice accepting completion of the Arrangement (the "Exchange Notice"), 10% 12 months after the time of the Exchange Notice, 10% 18 months after the time of the Exchange Notice, 15% 24 months after the time of the Exchange Notice, 15% 30 months after the time of the Exchange Notice, and 40% 36 months after the time of the Exchange Notice. Pursuant to the TSXV Surplus Escrow Agreement, the above-mentioned escrowed securities can only be transferred in accordance with the policies of the Exchange.

<sup>(2)</sup> All warrants expired on November 5, 2018.

# TIER 1 VALUE ESCROWED SECURITIES

Below is a description of the Corporation's securities that are currently held in escrow in accordance with the terms of Tier 1 value security escrow agreements (the "TSXV Tier 1 Value Escrow Agreements").

Designation of Class	Number of Securities Held in Escrow <sup>(1)</sup>	Percentage of Class
Common Shares	23,781	0.05%
Stock Options	34,375	1.23%
Warrants (2)	-	-

<sup>(1)</sup> Computershare Trust Company of Canada acts as depositary for the above securities held in escrow. The TSXV Tier 1 Value Escrow Agreements provide for a release of 25% of the escrowed securities every six months after the issuance of the Exchange Notice. Pursuant to the TSXV Surplus Escrow Agreements, the above-mentioned escrowed securities can only be transferred in accordance with the policies of the Exchange.

# TIER 2 VALUE ESCROWED SECURITIES

Below is a description of the Corporation's securities that are currently held in escrow in accordance with the terms of a Tier 2 value security escrow agreement (the "TSXV Tier 2 Value Escrow Agreement").

Designation of Class	Number of Securities Held in Escrow <sup>(1)</sup>	Percentage of Class
Common Shares	1,548,439	3.06%
Stock Options	70,219	2.51%

<sup>(1)</sup> Computershare Trust Company of Canada acts as depositary for the above securities held in escrow. The TSXV Tier 2 Value Escrow Agreements provides for a release of 15% of the escrowed securities every six months after the issuance of the Exchange Notice. Pursuant to the TSXV Tier 2 Value Escrow Agreement, the escrowed securities can only be transferred in accordance with the policies of the Exchange.

<sup>(2)</sup> All warrants expired on November 5, 2018.

<sup>(2)</sup> All warrants expired on November 5, 2018.

# **DIRECTORS AND OFFICERS**

The following table sets forth the name and municipality of residence of the executive officers of the Corporation, the office they hold with the Corporation and their principal occupation during the last five years.

NAME, CITY, PROVINCE AND COUNTRY OF RESIDENCE AND AGE	OFFICE HELD WITH THE CORPORATION	PRINCIPAL OCCUPATION DURING THE LAST 5 YEARS
Alfred Sorensen Calgary, Alberta, Canada Age: 57	President, Chief Executive Officer and Director	President and CEO of Former Pieridae since its founding in 2012. Prior thereto, a principal founder of Galveston LNG Inc. Director of Canadian Spirit Resources Inc. since January 2012.
Mario Racicot (until September 1st 2018) Boucherville , Quebec, Canada Age: 50	Chief Financial Officer	Chief Financial Officer of Issuer since May 2016. Prior thereto, Director of Corporate Affairs at Pétrolia since September 2015. Prior thereto held several management positions at the National Bank of Canada and its subsidiary Innocap Investment Management Inc.
Melanie Litoski (from October 1 <sup>st</sup> 2018) Calgary, Alberta, Canada Age: 48	Chief Financial Officer	Chief Financial Officer for Founders Advantage Capital Corp. from March 2018 to September 30, 2018. Prior thereto Vice President, Controller for Dollar Financial Group from 2014 to March 2018 and Vice President, Finance and Controller for ENMAX Corporation from 2008 to 2014.
Thomas Dawson Airdrie, Alberta, Canada Age: 56	LNG President	Chief Operating Officer of Former Pieridae since May 2012. Prior thereto, a principle founder of Galveston LNG Inc.
<b>Martin Bélanger</b> Calgary, Alberta, Canada Age: 51	Production President	Interim President and Chief Executive Officer of Pétrolia (from September 2016 until October 2017) and Director of Pétrolia from March 26, 2015 until October 24, 2017. Prior thereto, Director of Business Development, Natural Resources Solution Center for IBM Canada Ltd. (September 2015 to August 2016); Director, Oil Pipelines, Commercial Operations Engineering, TransCanada Pipelines Ltd. (September 2013 to May 2015); Director, Production Operations, Laricinia Energy Ltd. (May 2011 to September 2013)
Thomas Ciz Vancouver, British Columbia, Canada Age: 58	General Counsel and Corporate Secretary	General Counsel to Former Pieridae since August 1, 2015. Prior thereto, he provided legal services to Former Pieridae and other clients as Associate Counsel at Farris, Vaughan, Wills & Murphy LLP.

The following table presents the name and municipality of residence of the directors of the Corporation, their offices held with the Corporation, the date on which they became directors and their principal occupations. Each director will hold office until the next annual meeting of the shareholder of Pieridae or until his successor has been duly elected or appointed, unless he resigns or his office becomes vacant for any reason.

NAME, CITY AND PROVINCE OF RESIDENCE AND AGE	POSITION WITHIN THE CORPORATION	PRINCIPAL OCCUPATION	DIRECTOR SINCE	NUMBER OF SHARES OWNED OR CONTROLLED <sup>(1)</sup>
Myron A. Tétreault <sup>(2)</sup> Calgary, Alberta, Canada Age: 51	Chairman	Chairman of Calafate Holdings Ltd. since 1999. Director of Fitzroy Developments Ltd. and Northern Vision Development Corp since 2004. Currently Lead Director of PHX Energy Services Corp. since 2012 (and director or officer of PHX Energy Services Corp. and its predecessor since 1997	March 20, 2009	106,697 <sup>(5)</sup> (0.21%)
Alfred Sorensen Calgary, Alberta, Canada Age: 57	President, Chief Executive Officer and Director	President and CEO of Pieridae since its founding in 2012. Prior thereto, a principal founder of Galveston LNG Inc. Currently Director of Canadian Spirit Resources Inc. since January 2012.	October 24, 2017	9,784,235 <sup>(6)</sup> (19.35%)
Andrew Judson <sup>(2)(3)</sup> Calgary, Alberta, Canada Age: 50	Director	Director and Senior Advisor of Daytona Power Corp since April 2018, Prior thereto, Managing Partner of Camcor Partners Inc. since 2013. Prior thereto, a Managing Director with FirstEnergy Capital Corp. since September 2007.	October 24, 2017	6,714 <sup>(7)</sup> (0.01%)
Matthew Rees <sup>(3)(4)</sup> Calgary, Alberta, Canada Age: 46	Director	President and Chief Executive Officer of ORLEN Upstream Canada Ltd. since June 2015. Prior thereto, held positions with Talisman Energy Inc. and Petro-Canada Oil & Gas in the U.K., Columbia and Canada.	October 24, 2017	Nil
Charles Boulanger (2) (4) Quebec, QC, Canada Age: 60	Director	President and Chief Executing Officer of LeddarTech Inc. and President of Moody Management Inc.	December 11, 2012	49,155 <sup>(8)</sup> (0.10%)
Kjell Pedersen <sup>(3) (4)</sup> Stavanger, Norway Age: 65	Director	Director of Det Norske Oljeselskap AS from 2015 until 2016. Prior thereto, was Chairman of Aibel AS from April 2013 until March 2015. Prior thereto, CEO of Petoro AS from 2001 until 2013. Mr. Pedersen was also Vice Chairman of the Board of AHLP from June 2014 until July 2016.	June 27, 2018	1,869 <sup>(9)</sup>

- The directors have provided the information concerning the shares that they control.
   Members of the Audit Committee.

- Members of the Audit Committee.
   Members of the Compensation and Governance Committee.
   Members of the Reserve and Health, Safety and Environment Committee.
   Not including 232,291 shares that may be issued to him through options.
   Not including 195,000 shares that may be issued to him through options.
   Not including 441,150 shares that may be issued to him through options.
   Not including 147,915 shares that may be issued to him through options.
   Not including 125,000 shares that may be issued to him through options.

The fact that certain directors and officers of the Corporation are associated with other resource companies may lead to conflict of interest situations. If a director or officer is placed in a situation of conflict of interest, he shall abstain from taking part in discussions, decisions, and voting. There are currently no existing or potential material conflicts of interest between the Corporation and any director or officer.

As at the date of this information form, the Corporation's directors and officers beneficially owned, or controlled or directed, directly or indirectly, as a group, a total of 13,280,877 issued and outstanding shares, representing approximately 26.3 percent of the Corporation's issued and outstanding shares.

# CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

To the knowledge of the Corporation, and according to the information that the directors and officers have provided to it, none of them is or has been, within the ten years preceding the date of this Annual Information Form, a director, chief executive officer or chief financial officer of a company that was subject to an order that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, or was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer. For the purposes of this paragraph, "order" refers to (i) a cease trade order, (ii) an order similar to a cease trade order, or (iii) an order that denied the relevant entity to any exemption under securities legislation.

To the knowledge of the Corporation, none of its directors, executive officers or a shareholder holding a sufficient number of securities of the Corporation to affect materially its control:

- a) is, as at the date of this Annual Information Form, or has been within the 10 years before the date hereof, a director or executive officer of any entity (including the Corporation) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, state the fact; or
- b) has, within the 10 years before the date of this Annual Information Form, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder;

To the knowledge of the Corporation, none of its directors or executive officers, or any shareholder holding a sufficient number of securities to affect materially the control of the Corporation, has been subject to:

- a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

## LEGAL PROCEEDINGS

Except as disclosed below, the Corporation was not a party to any material legal proceeding, and its assets were not the subject of material legal proceedings, during the year ended December 31, 2017. The Corporation is not aware that any such legal proceeding is threatened.

In March 2013, the Centre québecois du droit à l'environnement brought a motion in the Superior Court of Quebec against Pétrolia for a declaratory judgment regarding drilling activities carried out on Anticosti Island and planned fracturing activities, alleging that such activities required the issuance of a certificate of authorization pursuant to the provisions of the *Environment Quality* 145 *Act* (Québec). Based on a draft ministerial order providing a regulatory framework for stratigraphic surveys on Anticosti Island issued by the MERN in June 2014 (and subsequently finalized in July 2014), the parties reached a settlement pertaining to stratigraphic surveys on Anticosti Island which was approved by the Quebec Superior Court on June 26, 2014. This motion remains outstanding in all other regards at the date of this Information Form.

# INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Except as disclosed in the notes to the financial statements of the Corporation for the year ended December 31, 2017, there is no material interest, direct or indirect, of any director, executive officer, shareholder who beneficially owns, directly or indirectly, more than 10 percent of the Corporation's outstanding common shares, or of any associates or affiliates of such persons, in any transaction within the three most recently completed fiscal years or during the current fiscal year which has materially affected or will materially affect the Corporation.

## AUDITORS, TRANSFER AGENT AND REGISTRAR

Ernst & Young LLP, Calgary, Alberta, are the auditors of the Corporation.

The transfer agent and registrar for the common shares of the Corporation is Computershare Trust Corporation of Canada at its office at 1500 Robert-Bourassa Boulevard, Suite 700, Montreal, Quebec, H3A 3S8.

# **MATERIAL CONTRACTS**

As of the date hereof, no material contracts entered into by the Corporation other than in the normal course of its activities are in effect other than the Agreement below:

a) the LNG Sale and Purchase Agreement dated May 31, 2013 between Uniper and Goldboro Canada LP, as amended on February 3, 2016; June 2, 2017; and November 1, 2018. This firm contract is subject to early termination rights of Buyer and Seller and certain basic term extension rights of Buyer, the basic term of the LNG Purchase and Sale Agreement commences on May 31, 2013 and terminates on the twentieth anniversary of the Start of Commercial Deliveries. All capitalized terms used below have the meanings given in such agreement.

The LNG Purchase and Sale Agreement contemplates that commencing on the Start of Commercial Deliveries and throughout the balance of the term thereof, Seller will sell to Buyer, and Buyer will purchase from the Seller, LNG having an energy content of 245,000,000 MMBtu per annum (the "Annual Contract Quantity"), subject to adjustment in accordance with Clause 5.2 thereof, (the "Adjusted Annual Contract Quantity").

Buyer is obliged under the LNG Purchase and Sale Agreement to take and pay, or compensate Seller if not taken, for the applicable Adjusted Annual Contract Quantity, subject to adjustment in accordance with Clause 5.3(a) thereof, (the "Take-or-Pay Quantities").

Buyer shall pay to Seller a price for each LNG cargo equal to the amount by which the product obtained when the energy content of the LNG cargo, expressed in MMBtu, is multiplied by a reference price, expressed in MMBtu. The reference price is confidential.

#### Conditions:

- a) the FEED Launch Date must occur not later than April 30th, 2014;
- b) Seller must enter into a sufficient number of binding Gas Supply Agreements with Gas Suppliers as specified in Clause 2.2(a)(i) of the FOB SPA not later than December 31st, 2019;
- c) Seller must enter into a sufficient number of binding Pipeline Capacity Agreements with Pipeline Capacity Suppliers as specified in Clause 2.2(b)(i) the FOB SPA not later than December 31st, 2019;
- d) Seller must obtain the relevant Canada Export Licence not later than December 31st, 2016;
- e) the conditions precedent, if any, in each and every of the Gas Supply Agreements specified in Clause 2.2(a)(i) the FOB SPA must be satisfied in full or waived not later than the FID Date;
- f) the conditions precedent, if any, in each and every of the Pipeline Capacity Agreements specified in Clause 2.2(b)(i) the FOB SPA must be satisfied in full or waived not later than the FID Date:
- g) the completion of Project Finance Secured must occur not later than the FID Date;
- h) the Site Acquisition must occur not later than December 31st, 2016;
- i) the FID Date must occur not later than September 30th, 2019;
- i) the acquisition of Permits Issued must occur not later than June 30th, 2019;
- k) the EPC Launch Date must occur not later than September 30th, 2019; and
- 1) the ordering of Major Components must commence not later than September 30th, 2019.

As of the date hereof, conditions a, d, and h have been satisfied. All others remain outstanding.

A copy of the agreement is available on www.sedar.com.

b) Pieridae and Ikkuma entered into a definitive agreement dated August 23, 2018 providing for the acquisition by Pieridae of all of the issued and outstanding shares of Ikkuma to be affected by way of a plan of arrangement under section 193 of the Business Corporations Act (Alberta). This agreement is detailed under Recent Developments subsequent to the Arrangement with Petrolia in this Annual Information Form.

# INTEREST OF EXPERTS

Ernst & Young LLP ("EY") are the external auditors who have prepared the independent auditors' report to shareholders of the Corporation regarding the financial statements of Pieridae for the year ended December 31, 2014. EY confirmed to the Corporation that they are independent from the Corporation within the meaning of the code of ethics of the Institute of Chartered Accountants of Quebec.

Sproule Associates Limited is the petroleum consulting firm who has reviewed the technical report on the properties of the Corporation as at December 31, 2017, and which is referred to under "Properties of the Corporation". At the time of preparation of such report, Sproule Associates Limited did not own any common shares of the Corporation.

#### ADDITIONAL INFORMATION

Additional information relating to the Corporation is available on SEDAR at www.sedar.com.

Additional information in respect of the remuneration of the directors and officers, the principal holders of securities of the Corporation, share options, and insiders having interests in material transactions, if any, is available in the Joint Information Circular dated August 29, 2017, relating to the Annual and Special Meeting of Shareholders of the Corporation which was held on September 26, 2017 for Shareholders of Pieridae Energy Limited and on October 3, 2017 for Shareholders of Pétrolia Inc..

Additional financial information is available in the Corporation's financial statements and Management's Discussion & Analysis of Results for the year ended December 31, 2017.

# APPENDIX A - CONTINGENT AND PROSPECTIVE RESOURCES (as of December 31, 2017)

# **BACKGROUND INFORMATION**

- Discovered Petroleum Initially-In-Place (equivalent to discovered resources) is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production. The recoverable portion of discovered petroleum initially in place includes production, reserves, and contingent resources; the remainder is unrecoverable.
- Production is the cumulative quantity of petroleum that has been recovered at a given date.
- Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political, and regulatory matters, or a lack of markets.
- Unrecoverable is that portion of Discovered or Undiscovered Petroleum Initially-In-Place
  quantities which is estimated, as of a given date, not to be recoverable by future development
  projects. A portion of these quantities may become recoverable in the future as commercial
  circumstances change or technological developments occur; the remaining portion may never be
  recovered due to the physical/chemical constraints represented by subsurface interaction of fluids
  and reservoir rocks.
- The resources have been reported in accordance with Canadian Oil and Gas Evaluation Handbook (the "COGE Handbook") guidelines that recommend disclosure of low, best and high estimates to reflect the range of uncertainty associated with the resource estimates, as follows:
  - O Low Estimate: This is considered to be a conservative estimate of the quantity of oil actually in place. It is likely that the actual in-place quantity will exceed the low estimate. If probabilistic methods are used, there should be at least a 90 percent probability (P90) that the quantity actually in place will equal or exceed the low estimate.
  - O Best Estimate: This is considered to be the best estimate of the quantity of oil actually in place. It is the mean volume of the estimates.
  - O High Estimate: This is considered to be an optimistic estimate of the quantity of oil actually in place. It is unlikely that the actual in-place quantity will exceed the high estimate. If probabilistic methods are used, there should be at least a 10 percent probability (P10) that the quantity actually in place will equal or exceed the high estimate.

## HALDIMAND PROJECT

TABLE 8: Low, Best, and High Estimates of Pieridae Energy's P&NG Contingent Resources in the Haldimand York River Formation (As of December 31, 2017)

Area		Gross Land Holding Discovered Petroleum Initially-In-Place (DPIIP)				Gross La ontingent		0	Net Company Interest Contingent Resources <sup>(4)</sup>			
		Unrisked			Unrisked	:	Risked <sup>(6)</sup>	Unrisked R			Risked <sup>(6)</sup>	
		Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Best <sup>(2)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Best <sup>(2)</sup>
	Light & Medium Oil (Mbbl)	13,856	87,968	199,126	574	5,373	12,536	1,988.1	574	5,373	12,536	1,988.1
Haldimand	Conventional Natural Gas (MMcf) (9)				4,950	41,887	94,952	15,498.1	4,950	41,887	94,952	15,498.1
	Total (Mboe)				1,399	12,354	28,361	4,571.1	1,399	12,354	28,361	4,571.1

- (1) Low represents the P90 volume estimate.
- (2) Best represents the mean volume estimate.
- (3) High represents the P10 volume estimate.
- (4) Contingent Resources are sub-classified as Contingent Development Unclarified (Risked = Best\*37%).
- (5) It is mathematically invalid to determine a risked success-case distribution for any probability level other than the mean itself by multiplying an unrisked success case by the chance of commerciality.
- (6) Risked: A 37 percent chance of development risk (63 percent chance of not proceeding with development.) (If the Petroleum Resources Act adopted on September 20, 2018 was considered, an 8 percent chance of development risk would have been used.). Risked figures are based on an aggregate of the following risks factors: environment drilling, regulatory approval, economic factors, corporate commitment, timing of production and development, market access, technology under development, legal factors, political factors and social license.
- (7) Oil resources are presented in thousands of barrels, at stock tank conditions.
- (8) Gas resources are presented in millions of cubic feet, at base conditions of 14.65 psia and 60 degrees Fahrenheit.
- (9) Solution gas.

On September 20, 2017, the Quebec Government published a draft hydrocarbon regulation, titled "GAZETTE OFFICIELLE DU QUÉBEC, September 20, 2017, Vol. 149, No. 38". This draft regulation indicated that the use of hydraulic fracturing would be permitted and presented the process in which an operator could apply for a permit, as well as the conditions surrounding the fracture stimulation operations. Risk factors related to Regulatory Approval and Political Factors estimated based on the indication that fracture stimulations would be permitted in the future. The aggregate Chance of Commerciality applied for Contingent Resources was estimated to be 37% in this report.

Subsequent to the effective date of this report, in June 2018 the government of Quebec announced an amendment to the proposed regulations. The amended regulation imposed a complete prohibition of hydraulic fracturing in shale gas, as well as a ban on fracturing within the first 1,000 meters of depth, as well as a complete prohibition of exploration and production within 1,000 meters from areas of urbanization and 1,000 meters from bodies of water. In September 2018, these revisions came into force.

The Company has indicated that this project is partially within 1,000 meters of areas of urbanization or bodies of water. The York River Formation evaluated in evaluated in this report is not a shale formation, but it is shallower than 1,000 meters. This development would not be allowed to proceed using horizontal multi-stage hydraulic fracturing technology, as was evaluated in this report. Had this regulatory change been disclosed prior to the December 31, 2017 effective date, Sproule would have increased the risk due to Regulatory Approval and Political Factors, which would have decreased the Chance of Commerciality for Contingent Resources from 37% to 8%.

# **BOURQUE PROJECT**

TABLE 9: Low, Best, and High Estimates of Pieridae Energy's P&NG Contingent Resources in the Bourque Forillon Formation (As of December 31, 2017)

Areas		Gross Land Holding Contingent Resources <sup>(5)</sup>				Net Company Interest Contingent Resources <sup>(5)</sup>			
Aleas		Unrisked			Risked <sup>(8)</sup>		Unrisked		Risked <sup>(8)</sup>
		Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Best <sup>(2)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Best <sup>(2)</sup>
	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bourque	Conventional Natural Gas (MMcf) (12)	0	0	0	0	0	0	0	0
North	NGL (Mbbl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total (Mboe)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Light & Medium Oil (Mbbl)	390.0	2,241.0	2,536.2	672.3	199.0	1,143.6	2,536.2	343.1
Bourque	Conventional Natural Gas (MMcf) (12)	5,460	17,753	34,856	5,326	2,786	9,060	17,787	2,718
South	NGL (Mbbl)	158.3	514.8	1,010.8	154.5	80.8	262.7	515.8	78.8
	Total (Mboe)	1,458.4	5,714.7	9,356.4	1,714.4	744.2	2,916.2	6,016.5	874.9
	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bourque-2	Conventional Natural Gas (MMcf) (12)	0	0	0	0	0	0	0	0
Area	NGL (Mbbl)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total (Mboe)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Light & Medium Oil (Mbbl)		2,241.0		672.3		1,143.6		343.1
Grand	Conventional Natural Gas (MMcf) (12)		17,753		5,326		9,059.6		2,717.9
Total <sup>(4)</sup>	NGL (Mbbl)		514.8		154.5		262.7		78.8
	Total (Mboe)		5,714.7		1,714.4		2,916.2		874.9

<sup>(1)</sup> Low represents the P90 volume estimate.

<sup>(2)</sup> Best represents the mean volume estimate.

<sup>(3)</sup> High represents the P10 volume estimate.

<sup>(4)</sup> Arithmetic summation is valid for the mean estimate only.

<sup>(5)</sup> Contingent Resources are sub-classified as Contingent - Development Unclarified (Risked = Best\*30%).

<sup>(6)</sup> Prospective Resources are sub-classified as Prospective - Prospect (Risked=Best\*26%).

- (7) It is mathematically invalid to determine a risked success-case distribution for any probability level other than the mean itself by multiplying an unrisked success case by the chance of commerciality.
- (8) Risked: A 30 percent chance of development risk (70 percent chance of not proceeding with development) Risked figures are based on an aggregate of the following risks factors: environment drilling, regulatory approval, economic factors, corporate commitment, timing of production and development, market access, technology under development, legal factors, political factors, social licence.
- (9) Oil resources are presented in thousands of barrels, at stock tank conditions.
- (10)Gas resources are presented in millions of cubic feet, at base conditions of 14.65 psia and 60 degrees Fahrenheit.
- (11) Natural gas liquids resources are presented in thousands of barrels, at base conditions of 60 degrees Fahrenheit and equilibrium pressure.
- (12) Solution gas

TABLE 10: Low, Best, and High Estimates of Pieridae Energy's P&NG Prospective Resources in the Bourque Forillon by Sub-Area Formation (As of December 31, 2017)

Areas				nd Holding e Resources		Net Company Interest Prospective Resources <sup>(6)</sup>			
			Unrisked		Risked <sup>(9)</sup>	Unrisked			Risked <sup>(9)</sup>
		Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Best <sup>(2)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Best <sup>(2)</sup>
	Light & Medium Oil (Mbbl)	479.0	1,978.0	8,157.0	514.3	244.4	1,009.4	4,162.5	262.4
Bourque North	Conventional Natural Gas (MMcf) (13)	6,527	19,710	59,826	5,125	3,331	10,058	30,529	2,615
1	NGL (Mbbl)	189.3	571.6	1,734.9	148.6	96.6	291.7	885.3	75.8
	Total (Mboe)	1,756.1	5,834.6	19,862.9	1,517.0	896.1	2,977.4	10,136.0	774.1
	Light & Medium Oil (Mbbl)	3,277.0	12,404.0	47,418.0	3,225.0	1,672.3	6,329.8	24,197.4	1,645.7
Bourque South	Conventional Natural Gas (MMcf) (13)	45,106	124,410	342,327	32,347	23,018	63,486	174,689	16,506
1	NGL (Mbbl)	1,308.1	3,607.9	9,927.5	938.0	667.5	1,841.1	5,066.0	478.7
	Total (Mboe)	12,102.8	36,746.8	114,399.9	9,554.2	6,176.0	18,751.9	58,378.3	4,875.5
	Light & Medium Oil (Mbbl)	422.0	1,680.0	6,559.0	436.8	215.3	857.3	3,347.1	222.9
Bourque-2	Conventional Natural Gas (MMcf) (13)	59	167	481	44	30	85	245	22
Area	NGL (Mbbl)	1.7	4.9	13.9	1.3	0.9	2.5	7.1	0.6
	Total (Mboe)	433.4	1,712.8	6,653.0	445.3	221.2	874.0	3,395.0	227.2
Grand Total <sup>(4)</sup>	Light & Medium Oil (Mbbl)		16,062.0		4,176.1		8,196.4		2,131.1
	Conventional Natural Gas (MMcf) (13)		144,287		37,515		73,629.7		19,143.7
	NGL (Mbbl)		4,184.3		1,087.9		2,135.3		555.2
	Total (Mboe)		44,294.2		11,516.5		22,603.3		5,876.9

- (1) Low represents the P90 volume estimate.
- (2) Best represents the mean volume estimate.
- (3) High represents the P10 volume estimate.

- (4) Arithmetic summation is valid for the mean estimate only.
- (5) Contingent Resources are sub-classified as Contingent Development Unclarified (Risked = Best\*30%).
- (6) Prospective Resources are sub-classified as Prospective Prospect (Risked=Best\*26%).
- (7) It is mathematically invalid to determine a risked success-case distribution for any probability level other than the mean itself by multiplying an unrisked success case by the chance of commerciality.
- (8) Risked: A 30 percent chance of development risk (70 percent chance of not proceeding with development) Risked figures are based on an aggregate of the following risks factors: environment drilling, regulatory approval, economic factors, corporate commitment, timing of production and development, market access, technology under development, legal factors, political factors, social licence.
- (9) Risked: A 26 percent chance of commerciality risk (74 percent chance of not proceeding with development). This is the product of a 30 percent chance of development risk and a 90 percent chance of discovery risk. Risked figures are based on an aggregate of the following risks factors: environment drilling, regulatory approval, economic factors, corporate commitment, timing of production and development, market access, technology under development, legal factors, political factors, social licence and chance of discovery.
- (10)Oil resources are presented in thousands of barrels, at stock tank conditions.
- (11)Gas resources are presented in millions of cubic feet, at base conditions of 14.65 psia and 60 degrees Fahrenheit.
- (12) Natural gas liquids resources are presented in thousands of barrels, at base conditions of 60 degrees Fahrenheit and equilibrium pressure.
- (13) Solution gas.

On September 20, 2017, the Quebec Government published a draft hydrocarbon regulation, titled "GAZETTE OFFICIELLE DU QUÉBEC, September 20, 2017, Vol. 149, No. 38". This draft regulation indicated that the use of hydraulic fracturing would be permitted and presented the process in which an operator could apply for a permit, as well as the conditions surrounding the fracture stimulation operations. Risk factors related to Regulatory Approval and Political Factors estimated based on the indication that fracture stimulations would be permitted in the future. The aggregate Chance of Commerciality applied for Contingent Resources was estimated to be 30%, and the aggregate Chance of Commerciality applied for Prospective Resources was estimated to be 26% in this report.

Subsequent to the effective date of this report, in June 2018 the government of Quebec announced an amendment to the proposed regulations. The amended regulation imposed a complete prohibition of hydraulic fracturing in shale gas, as well as a ban on fracturing within the first 1,000 meters of depth, as well as a complete prohibition of exploration and production within 1,000 meters from areas of urbanization and 1,000 meters from bodies of water. In September 2018, these revisions came into force.

The Company has indicated that this project is not within 1,000 meters of areas of urbanization or bodies of water. The Forillon Formation evaluated in this report is not a shale formation, and it is deeper than 1,000 meters. Hydraulic fracturing is not banned for this formation. It is Sproule's opinion that the June 2018 announcement does not require a change in the risk factors related to Regulatory Approval and Political Factors and the Chance of Commerciality of this project remains at 30% for the Contingent Resources and 26% for the Prospective Resources.

TABLE 11: Low, Best, and High Estimates of Pieridae Energy's Petroleum Initially-In-Place in the Bourque Forillon Formation (As of December 31, 2017)(As of December 31, 2017)

	Total Petroleum Initially-In- Place (TPIIP)			Discovered	Petroleum Initi (DPIIP)	ally-In-Place	Undiscovered Petroleum Initially-In-Place (UPIIP)			
Areas	Pool Volumes (100% Working Interest) (Mbbl)									
	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	
Bourque North	26,000	99,000	199,000	0	0	0	26,000	99,000	199,000	
BourqueSouth	206,000	647,000	1,246,000	23,000	62,000	115,000	183,000	585,000	1,131,000	
Bourque-2 Area	24,000	81,000	161,000	0	0	0	24,000	81,000	161,000	
Grand Total <sup>(4)</sup>		827,000			62,000			765,000		

	Total Petroleum Initially-In- Place (TPIIP)			Discovered	Petroleum Initi (DPIIP)	ally-In-Place	Undiscovered Petroleum Initially-In-Place (UPIIP)			
Areas	Company Working Interest Volumes (51.03% WI) (Mbbl)									
	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	Low <sup>(1)</sup>	Best <sup>(2)</sup>	High <sup>(3)</sup>	
Bourque North	13,268	50,520	101,550	0	0	0	13,268	50,520	101,550	
Bourque South	105,122	330,164	635,834	11,737	31,639	58,685	93,385	298,526	577,149	
Bourque-2 Area	12,247	41,334	82,158	0	0	0	12,247	41,334	82,158	
Grand Total <sup>(4)</sup>		422,018			31,639			390,380		

<sup>(1)</sup> Low represents the P90 volume estimate.

<sup>(2)</sup> Best represents the mean volume estimate.

<sup>(3)</sup> High represents the P10 volume estimate.

<sup>(4)</sup> Arithmetic summation is valid for the mean estimate only.

## DISCLOSURE OF RESOURCES DATA

The statement of resources data and other oil and gas information set forth below is a summary of information contained in the "Technical Review of P&NG Holdings of Pieridae Energy Limited in Quebec and New Brunswick (as of December 31, 2017)" (the "Report") dated March 15, 2018 and revised as of November 7, 2018. The Report was prepared in part for the purpose of evaluating the Corporation's P&NG resourcess according to the COGE Handbook resources definitions and standards and consistent with NI 51-101. In accordance with these standards, and by reference in NI 51-101, tables were presented for forecast prices and costs, which summarize the resources and net present values, as of December 31, 2017.

As of December 31, 2017, no oil or natural gas reserves have been assigned to any of the properties in which Pieridae has an interest. As Pieridae has no development pending contingent resources, it has not reported related future net revenue.

Form 51-101F2, included in the Report, presents a Report on Contingent and Prospective Resources Data by Independent Qualified Reserves Evaluator or Auditor.

Form 51-101F3, included in the Report, presents a Report of Management and Directors on Reserves Data and Information.

A copy of such Report is available electronically on SEDAR at www.sedar.com and is incorporated by reference herein.

## RESOURCES

Table 13 presents sets forth the Corporation's contingent resources data in the Haldimand area of Quebec, as at December 31, 2017. The contingent resources data are risked estimates of volume as at December 31, 2017.

**TABLE 13** 

Classification	Independent Qualified Reserves Evaluator or Auditor	Effective Date	Location of Resources Other than Reserves (Country)	Risked Volume Light & Medium Oil (Mbbl)	Risked Volume Conventional Natural Gas (MMcf)	Risked Volume Total (Mboe)
Development Unclarified Best Estimate Contingent Resources	Sproule	December 31, 2017	Canada	1,988	15,498	4,571

Table 14 and 15 presents sets forth the Corporation's contingent and prospective resources data in the Bourque area of Quebec, as at December 31, 2017. The contingent and prospective resources data are risked estimates of volume as at December 31, 2017.

## TABLE 14

Classification	Independent Qualified Reserves Evaluator or Auditor	Effective Date	Location of Resources Other than Reserves (Country)	Risked Volume Light & Medium Oil (Mbbl)	Risked Volume Conventional Natural Gas (MMcf)	Risked Volume NGL (Mbbl)	Risked Volume Total (Mboe)
Development Unclarified Best Estimate Contingent Resources	Sproule	December 31, 2017	Canada	343	2,718	79	875

#### **TABLE 15**

Classification	Independent Qualified Reserves Evaluator or Auditor	Effective Date	Location of Resources Other than Reserves (Country)	Risked Volume Light & Medium Oil (Mbbl)		Risked Volume NGL (Mbbl)	Risked Volume Total (Mboe)
Best Estimate Prospective Resources - Prospect	Sproule	December 31, 2017	Canada	2,131	19,144	555	5,877

#### RESOURCE DEFINITIONS

This discussion has been excerpted from Sections 5.2 and 5.3 of the COGE Handbook, Second Edition, September 1, 2007.

The following definitions relate to the subdivisions in the SPE-PRMS resources classification framework and use the primary nomenclature and concepts contained in the 2007 SPE-PRMS, with direct excerpts shown in italics.

Total Petroleum Initially-In-Place ("PIIP") is that quantity of petroleum that is estimated to exist originally in naturally occurring accumulations. It includes that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations, prior to production, plus those estimated quantities in accumulations yet to be discovered (equivalent to "total resources").

Discovered Petroleum Initially-In-Place (equivalent to discovered resources) is that quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations prior to production. The recoverable portion of discovered petroleum initially in place includes production, reserves, and contingent resources; the remainder is unrecoverable.

Production is the cumulative quantity of petroleum that has been recovered at a given date.

Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on the analysis of drilling, geological, geophysical, and engineering data; the use of established technology; and specified economic conditions, which are generally accepted as being reasonable. Reserves are further classified according to the level of certainty associated with the estimates and may be subclassified based on development and production status.

Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingencies may include factors such as economic, legal, environmental, political, and regulatory matters, or a lack of markets. It is also appropriate to classify as Contingent Resources the estimated discovered recoverable quantities associated with a project in the early evaluation stage. Contingent Resources are further classified in accordance with the level of certainty associated with the estimates and may be subclassified based on project maturity and/or characterized by their economic status.

Unrecoverable is that portion of Discovered or Undiscovered PIIP quantities which is estimated, as of a given date, not to be recoverable by future development projects. A portion of these quantities may become recoverable in the future as commercial circumstances change or technological developments occur; the remaining portion may never be recovered due to the physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.

Undiscovered Petroleum Initially-In-Place (equivalent to undiscovered resources) is that quantity of petroleum that is estimated, on a given date, to be contained in accumulations yet to be discovered. The recoverable portion of Undiscovered Petroleum Initially-In-Place is referred to as "Prospective Resources," the remainder as "unrecoverable".

Prospective Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be subclassified based on project maturity.

## RESOURCE CATEGORIES

Due to the high uncertainty in estimating resources, evaluations of these assets require some type of probabilistic methodology. Expected value concepts and decision tree analyses are routine; however, in high-risk, high-reward projects, Monte Carlo simulation can be used. In any event, three success cases plus a failure case should be included in the evaluation of the resources (see Section 9 of the COGE Handbook for details on these methods).

#### CLASSIFICATION OF RESOURCES

When evaluating resources, in particular, contingent and prospective resources, the following mutually exclusive categories are recommended:

• Low Estimate: This is considered to be a conservative estimate of the quantity that will actually be recovered from the accumulation. If probabilistic methods are used, this term reflects a P<sup>90</sup> confidence level.

- Best Estimate: This is considered to be the best estimate of the quantity that will actually be recovered from the accumulation. If probabilistic methods are used, this term is a measure of central tendency of the uncertainty distribution (most likely/mode, P<sup>50</sup>/median, or arithmetic average/mean).
- High Estimate: This is considered to be an optimistic estimate of the quantity that will actually be recovered from the accumulation. If probabilistic methods are used, this term reflects a P<sup>10</sup> confidence level.

Corporation Gross Contingent Resources are the Corporation's working interest share of the Contingent Resources, before deduction of any royalties.

Corporation Net Contingent Resources are the gross contingent resources of the properties in which the Corporation has an interest, less all Crown, freehold, and overriding royalties and interests owned by others.

Fair Market Value is defined as the price at which a purchaser seeking an economic and commercial return on investment would be willing to buy, and a vendor would be willing to sell, where neither is under compulsion to buy or sell and both are competent and have reasonable knowledge of the facts.

Resources and Contingent Resources do not constitute, and should not be confused with, reserves. Actual reserves and resources will vary from the reserve and resource estimates, and those variations could be material.

As of December 31, 2017, no oil or natural gas reserves have been assigned to any of the properties in which Pieridae has an interest.