Sproule

EVALUATION OF THE CONTINGENT AND PROSPECTIVE RESOURCES OF PETROLIA INC. IN THE BOURQUE AREA OF QUEBEC, CANADA (AS OF SEPTEMBER 30, 2017) – SUMMARY REPORT

sproule.com

Copies:	Petrolia Inc. (2 copies) Electronic (2 copies) Sproule (1 copy)
Project No.:	3180.22061
Prepared for:	Petrolia Inc.
Authors:	Matthew J. Tymchuk, P.Eng., Project Leader Suryanarayana Karri, P.Geoph. Ahmed Elsabban, B.Sc.
Exclusivity:	This report has been prepared for the exclusive use of Petrolia Inc. The distribution to and use by third parties of the Report is governed by the terms and conditions of the Engagement Agreement entered into between Sproule and Petrolia Inc. and by the assumptions and limitations as contained herein.

Table of Contents

Introduction

Evaluation Procedures
Report Contents
Field Operations
Historical Data, Interests and Burdens
Evaluation Standards
Evaluation Results
BOE Cautionary Statement
Forward-Looking Statements
Certification
Permit to Practice
Certificates

Summary

Table S-1	Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area (As of September 30, 2017) Company Working Interest Volumes
Table S-1A	Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area (As of September 30, 2017) Pool Volumes (100% Working Interest)
Table S-2	Low, Best, and High Estimates of Petrolia Inc.'s Petroleum Initially-In-Place in the Forillon Formation (As of September 30, 2017)

Discussion

A. Lands
B. Geology Evaluation
    1. General Data
    2. Seismic Interpretation
    3. Petrophysical Evaluation
    4. Probabilistic Evaluation
C. Engineering Evaluation
    1. Project Description
    2. Contingent and Prospective Resources Classification
    3. Recovery Technology
    4. Contingencies
        4.1 Regulatory Approval
        4.2 Economic Factors
        4.3 Corporate Commitment
        4.4 Timing of Production and Development
        4.5 Market Access
        4.6 Technology Under Development
        4.7 Political Factors
        4.8 Social License
    5. Project Evaluation Status
    6. Project Maturity Subclass
    7. Economic Status
    8. Chance of Development Risk
    9. Positive and Negative Factors
    10. Resource Estimates
    11. Project Development Forecasts

Tables

Table D-1	Low, Best, and High Estimates of Petrolia Inc.'s Petroleum Initially-In-Place in the Forillon Formation (As of September 30, 2017)
Table D-2	Input Parameters for the Total Probabilistic Model of the Forillon Formation (As of September 30, 2017)
Table D-3	Input Parameters for the Discovered PIIP Probabilistic Model of the Forillon Formation (As of September 30, 2017)

Table D-4 Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area (As of September 30, 2017) Company Working Interest Volumes

Table D-5 Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area (As of September 30, 2017) Pool Volumes (100% Working Interest)

Table D-6 Contingent and Prospective Resources Project Chance of Commerciality Estimates (As of September 30, 2017)

Figures

Figure 1 Gaspe Region, Bourque Project Land Position
Figure 2 Seismic Coverage and Well Availability

Figure 3 FMI Results from Petrolia Borque 1 Well
Figure 4 Effective Porosity and Water Saturation Distributions for Petrolia Bourque 1 well
Figure 5 Effective Porosity and Water Saturation Distributions for Petrolia Bourque 2 well
Figure 6 Forillon Net Pay Distribution
Figure 7 Forillon Recovery Factor Distributions

Appendices

Appendix A Resource Definitions
Appendix B Abbreviations
Appendix C MSCA Agreement
Appendix D Representation Letter

Introduction

This report was prepared by Sproule (“Sproule”) at the request of Mr. Mabrouk Ouederni, ing., geo. Operations Manager, Petrolia Inc. Petrolia Inc. is hereinafter referred to as "the Company". The effective date of this report is September 30, 2017, and it consists of an evaluation of the low, best, and high estimate contingent and prospective P&NG resources of the Company's interests in the Bourque Area, in Quebec, Canada. This report was prepared between August and October 2017 for the purpose of evaluating the Company’s P&NG resources according to the Canadian Oil and Gas Evaluation Handbook (“COGE Handbook”) resource definitions that are consistent with the standards of National Instrument 51-101. This report was prepared for the Company’s corporate purposes.

Subsequent to the effective date of this report, Petrolia completed a business combination with Pieridae Energy Limited forming an amalgamated company called “Pieridae Energy Limited” (“Pieridae”). Effective October 24, 2017, the Petrolia assets were transferred to Pieridae,

Evaluation Procedures

1. The contingent and prospective resources were estimated using analogous pools and volumetric calculations based on seismic data and well data which established all reservoir parameters.

2. A 30 percent chance of development risk (70 percent chance of not proceeding with development) has been applied to the contingent resources included in this report. This chance of development is an aggregation of the risk factors associated with the contingencies detailed in the Discussion section of the report. This aggregate risk factor has been incorporated as a 30 percent chance of occurrence applied to the unrisked best estimate contingent resources.

3. A 26 percent chance of development risk (74 percent chance of not proceeding with development) has been applied to the prospective resources included in this report. This chance of development is an aggregation of the risk factors associated with the contingencies detailed in the Discussion section of the report and incorporates a 90 percent chance of discovery risk. This aggregate risk factor has been incorporated as a 26 percent chance of occurrence applied to the unrisked best estimate prospective resources.

4. The development forecast presented in this evaluation was based on a development program as presented by the Company.

5. The contingent resources are classified as Contingent – Development Unclarified. An economic model has not been developed for these resources.

Report Contents

The report is included in one (1) volume. It consists of an Introduction, Summary, Discussion, Tables, Figures and Appendices. The Introduction includes the summary of evaluation standards and procedures and pertinent author certificates, the Summary includes high-level summaries of the evaluation, and the Discussion includes general commentaries pertaining to the evaluation of the contingent and prospective resources. Contingent and prospective resource definitions, abbreviations, units, and conversion factors are included in Appendices A and B. The MSCA Agreement has been included as Appendix C; it presents the terms and conditions of the consulting services, and the representations and warranties of the Company. A representation letter prepared by Officers of the Company, Appendix D, confirms the accuracy, completeness and availability of data requested by and furnished to Sproule during the preparation of this report.

Field Operations

In the preparation of this evaluation, a field inspection of the properties was not performed. The relevant engineering data were made available by the Company or obtained from public sources and the non-confidential files at Sproule. No material information regarding the resources evaluation would have been obtained by an on-site visit.

Historical Data, Interests and Burdens

1. All geological data and other data that were obtained from the Company or from public sources were accepted as represented, without any further investigation by Sproule.

2. Property descriptions, details of interests held, and well data, as supplied by the Company, were accepted as represented. No investigation was made into either the legal titles held or any operating agreements in place relating to the subject properties.

3. Lessor and overriding royalties and other burdens were obtained from the Company. No further investigation was undertaken by Sproule.

4. Sproule reserves the right to review all calculations made, referred to or included in this report and to revise the estimates as a result of erroneous data supplied by the Company or information that exists but was not made available, which becomes known subsequent to the preparation of this report.

Evaluation Standards

This report has been prepared by Sproule using current geological and engineering knowledge, techniques and computer software. It has been prepared within the Code of Ethics of the Association of Professional Engineers and Geoscientists of Alberta ("APEGA"). This report adheres in all material aspects to the "best practices" recommended in the COGE Handbook which are in accordance with principles and definitions established by the Calgary Chapter of the Society of Petroleum Evaluation Engineers. The COGE Handbook is incorporated by reference in National Instrument 51-101.

Evaluation Results

1. The analysis of individual entities as reported herein was conducted within the context and scope of an evaluation of a unique group of entities in aggregate. Use of this report outside of this scope may not be appropriate.

2. The accuracy of contingent and prospective resources estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data provided at the time this report was prepared, the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that reservoir and financial performance subsequent to the date of the estimates may necessitate revision. These revisions may be material.

3. Due to rounding, certain totals may not be consistent from one presentation to the next.

4. There is no certainty that it will be commercially viable to produce any portion of the reported resources volumes.

5. There is no certainty that prospective resources will be discovered, and if they are, there is no certainty that it will be commercially viable to produce any portion of the reported resource volumes.

BOE Cautionary Statement

BOE's (or 'McfGE's' or other applicable units of equivalency) may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf:1 bbl (or 'An McfGE conversion ratio of 1 bbl:6 Mcf') is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

Forward-Looking Statements

This report may contain forward-looking statements including expectations of future production revenues and capital expenditures. These statements are based on current expectations that involve a number of risks and uncertainties, which could cause actual results to differ from those anticipated. These risks include, but are not limited to: the underlying risks of the oil and gas industry (i.e., corporate commitment, regulatory approval, operational risks in development, exploration and production); potential delays or changes in plans with respect to exploration or development projects or capital expenditures; the uncertainty of resources estimations; the uncertainty of estimates and projections relating to production; costs and expenses; health, safety and environmental factors; commodity prices; and exchange rate fluctuation.

Certification

Report Preparation

The report entitled “Evaluation of the Contingent and Prospective Resources of Petrolia Inc. in the Bourque Area of Quebec, Canada (As of September 30, 2017) – Summary Report” was prepared by the following Sproule personnel:

Original Signed by Matthew J. Tymchuk, P.Eng.

Matthew J. Tymchuk, P.Eng.
Project Leader;
Manager, Engineering
_16_/_11_/2017 dd/mm/yr

Original Signed by Suryanarayana Karri, P.Geoph.

Suryanarayana Karri, P.Geoph.
Petrophysical Specialist
_16_/_11_/2017 dd/mm/yr

Original Signed by Ahmed Elsabban, B.Sc.

Ahmed Elsabban, B.Sc.
Senior Geophysical Specialist
_16_/_11_/2017 dd/mm/yr

Sproule Executive Endorsement

This report has been reviewed and endorsed by the following Executive of Sproule:

Original Signed by Alec Kovaltchouk, P.Geo.

Alec Kovaltchouk, P.Geo.
VP, Geoscience
_16_/_11_/2017 dd/mm/yr

Permit to Practice

Sproule is a member of the Association of Professional Engineers and Geoscientists of Alberta and our permit number is P00417.

Certificate

Matthew J. Tymchuk, P.Eng.

I, Matthew J. Tymchuk, Manager, Engineering of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degree:
   a. B.Sc. Mechanical Engineering (2004), University of Alberta, Edmonton AB, Canada

2. I am a registered Professional:
   a. Professional Engineer (P.Eng.) Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   b. Society of Petroleum Engineers (SPE)

4. I am a qualified reserves evaluator and reserves auditor as defined in National Instrument 51-101.

5. My contribution to the report entitled “Evaluation of the Contingent and Prospective Resources of Petrolia Inc. in the Bourque Area of Quebec, Canada (As of September 30, 2017) – Summary Report” is based on my engineering knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule. I did not undertake a field inspection of the properties.

6. I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the properties described in the above-named report or in the securities of Petrolia Inc.

Original Signed by Matthew J. Tymchuk, P.Eng.

Matthew J. Tymchuk, P.Eng.

Certificate

Suryanarayana Karri, P.Geoph.

I, Suryanarayana Karri, Petrophysical Specialist of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degrees:
   a. M.Sc. Engineering Physics and Instrumentation (1983), Osmania University, Hyderabad, India

2. I am a registered professional:
   a. Professional Geophysicist (P.Geoph.), Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   b. Society of Petroleum Engineers (SPE)
   c. The Society of Petrophysicists and Well Log Analysts (SPWLA)
   d. Canadian Well Logging Society (CWLS)
   e. Canadian Society of Petroleum Geologists (CSPG)
   f. American Association of Petroleum Geologists (AAPG)

4. I am a qualified reserves evaluator and reserves auditor as defined in National Instrument 51-101.

5. My contribution to the report entitled “Evaluation of the Contingent and Prospective Resources of Petrolia Inc. in the Bourque Area of Quebec, Canada (As of September 30, 2017) – Summary Report” is based on my geoscience knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule. I did not undertake a field inspection of the properties.

6. I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the properties described in the above-named report or in the securities of Petrolia Inc.

Original Signed by Suryanarayana Karri, P.Geoph.

Suryanarayana Karri, P.Geoph.

Certificate

Ahmed Elsabban, B.Sc.

I, Ahmed Elsabban, Senior Geophysical Specialist of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degree:
   a. B.Sc. Geology (1999), Mansoura University, Egypt

2. I am a member of the following professional organizations:
   a. American Association of Petroleum Geologists (AAPG)
   b. Society of Exploration Geophysicists (SEG)

3. My contribution to the report entitled “Evaluation of the Contingent and Prospective Resources of Petrolia Inc. in the Bourque Area of Quebec, Canada (As of September 30, 2017) – Summary Report” is based on my geoscience knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule. I did not undertake a field inspection of the properties.

4. I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the properties described in the above-named report or in the securities of Petrolia Inc.

Original Signed by Ahmed Elsabban, B.Sc.

Ahmed Elsabban, B.Sc.

Certificate

Alec Kovaltchouk, P.Geo.

I, Alec Kovaltchouk, VP, Geoscience of Sproule, 900, 140 Fourth Avenue SW, Calgary, Alberta, declare the following:

1. I hold the following degree:
   a. M.Sc. Geochemistry (1981) University of Lviv, Lviv, Ukraine

2. I am a registered professional:
   a. Professional Geoscientist (P.Geo.), Province of Alberta, Canada

3. I am a member of the following professional organizations:
   a. Association of Professional Engineers and Geoscientists of Alberta (APEGA)
   b. Canadian Society of Petroleum Geologists (CSPG)

4. I am a qualified reserves evaluator and reserves auditor as defined in National Instrument 51-101.

5. My contribution to the report entitled “Evaluation of the Contingent and Prospective Resources of Petrolia Inc. in the Bourque Area of Quebec, Canada (As of September 30, 2017) – Summary Report” is based on my geoscience knowledge and the data provided to me by the Company, from public sources, and from the non-confidential files of Sproule. I did not undertake a field inspection of the properties.

6. I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the properties described in the above-named report or in the securities of Petrolia Inc.

Original Signed by Alec Kovaltchouk, P.Geo.

Alec Kovaltchouk, P.Geo.

Summary

Table S-1 summarizes our evaluation of the working interest risked contingent and prospective resources of Petrolia Inc., as of September 30, 2017. Table S-1A summarizes our evaluation of the pool volume risked contingent and prospective resources, as of September 30, 2017.

The resources definitions and classifications used in this evaluation are the standards defined by the COGE Handbook reserve definitions and consistent with NI 51-101 and used by Sproule. The COGE Handbook Volume 1 defines contingent resources as 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. The contingencies associated with the Company's resources are detailed in the Discussion section.

The contingent and prospective oil resources are presented in thousands of barrels, at stock tank conditions. The contingent and prospective natural gas resources are presented in millions of cubic feet, at base conditions of 14.65 psia and 60 degrees Fahrenheit. The contingent and prospective natural gas liquids resources are presented in thousands of barrels, at base conditions of 60 degrees Fahrenheit and equilibrium pressure.

Table S-2 summarizes the low, best, and high estimate discovered and undiscovered petroleum initially-in-place.

The risked contingent resources have been risked for chance of development. The contingent resources have been sub-classified as Contingent – Development Unclarified.

The risked prospective resources have been risked for chance of development, and incorporates a chance of discovery into that risk. The prospective resources have been sub-classified as Prospective – Prospect.

Table S-1

Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area
(As of September 30, 2017)

Company Working Interest Volumes (51.03% WI)

Area		Contingent Resources[5]				Prospective Resources[6]			
		Unrisked			Risked[8]	Unrisked			Risked[9]
		Low[1]	Best[2]	High[3]	Best[2]	Low[1]	Best[2]	High[3]	Best[2]
Bourque North	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	244.4	1,009.4	4,162.5	**262.4**
	Solution Gas (MMcf)	0	0	0	**0**	3,331	10,058	30,529	**2,615**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	96.6	291.7	885.3	**75.8**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	896.1	2,977.4	10,136.0	**774.1**
Bourque South	Light & Medium Oil (Mbbl)	199.0	1,143.6	2,536.2	**343.1**	1,672.3	6,329.8	24,197.4	**1,645.7**
	Solution Gas (MMcf)	2,786	9,060	17,787	**2,718**	23,018	63,486	174,689	**16,506**
	NGL (Mbbl)	80.8	262.7	515.8	**78.8**	667.5	1,841.1	5,066.0	**478.7**
	Total (Mboe)	744.2	2,916.2	6,016.5	**874.9**	6,176.0	18,751.9	58,378.3	**4,875.5**
Bourque-2 Area	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	215.3	857.3	3,347.1	**222.9**
	Solution Gas (MMcf)	0	0	0	**0**	30	85	245	**22**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	0.9	2.5	7.1	**0.6**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	221.2	874.0	3,395.0	**227.2**
Grand Total[4]	**Light & Medium Oil (Mbbl)**	**199.0**	**1,143.6**	**2,536.2**	**343.1**	**2,132.0**	**8,196.4**	**31,707.0**	**2,131.1**
	Solution Gas (MMcf)	**2,786.4**	**9,059.6**	**17,787.1**	**2,717.9**	**26,378.2**	**73,629.7**	**205,463.6**	**19,143.7**
	NGL (Mbbl)	**80.8**	**262.7**	**515.8**	**78.8**	**765.0**	**2,135.3**	**5,958.4**	**555.2**
	Total (Mboe)	**744.2**	**2,916.2**	**6,016.5**	**874.9**	**7,293.4**	**22,603.3**	**71,909.4**	**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) Summation of the Low and High is provided for convenience and does not reflect the statistical P90 and P10 values

(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)

(9) Risked: A 26 percent chance of development risk (74 percent chance of not proceeding with development)

(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

Sproule

Table S-1A

Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area (As of September 30, 2017)

Pool Volumes (100% Working Interest)

Area		Contingent Resources[5]				Prospective Resources[6]			
		Unrisked			Risked[8]	Unrisked			Risked[9]
		Low[1]	Best[2]	High[3]	Best[2]	Low[1]	Best[2]	High[3]	Best[2]
Bourque North	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	479.0	1,978.0	8,157.0	**514.3**
	Solution Gas (MMcf)	0	0	0	**0**	6,527	19,710	59,826	**5,125**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	189.3	571.6	1,734.9	**148.6**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	1,756.1	5,834.6	19,862.9	**1,517.0**
Bourque South	Light & Medium Oil (Mbbl)	390.0	2,241.0	2,536.2	**672.3**	3,277.0	12,404.0	47,418.0	**3,225.0**
	Solution Gas (MMcf)	5,460	17,753	34,856	**5,326**	45,106	124,410	342,327	**32,347**
	NGL (Mbbl)	158.3	514.8	1,010.8	**154.5**	1,308.1	3,607.9	9,927.5	**938.0**
	Total (Mboe)	1,458.4	5,714.7	9,356.4	**1,714.4**	12,102.8	36,746.8	114,399.9	**9,554.2**
Bourque-2 Area	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	422.0	1,680.0	6,559.0	**436.8**
	Solution Gas (MMcf)	0	0	0	**0**	59	167	481	**44**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	1.7	4.9	13.9	**1.3**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	433.4	1,712.8	6,653.0	**445.3**
Grand Total[4]	**Light & Medium Oil (Mbbl)**	**390.0**	**2,241.0**	**2,536.2**	**672.3**	**4,178.0**	**16,062.0**	**62,134.0**	**4,176.1**
	Solution Gas (MMcf)	**5,460**	**17,753**	**34,856**	**5,326**	**51,692**	**144,287**	**402,633**	**37,515**
	NGL (Mbbl)	**158.3**	**514.8**	**1,010.8**	**154.5**	**1,499.1**	**4,184.3**	**11,676.4**	**1,087.9**
	Total (Mboe)	**1,458.4**	**5,714.7**	**9,356.4**	**1,714.4**	**14,292.3**	**44,294.2**	**140,915.9**	**11,516.5**

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Summation of the Low and High is provided for convenience and does not reflect the statistical P90 and P10 values

(5) Contingent Resources are sub-classified as Contingent - Development Unclarified

(6) Prospective Resources are sub-classified as Prospective - Prospect

(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)

(9) Risked: A 26 percent chance of development risk (74 percent chance of not proceeding with development)

(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

Sproule

Table S-2

Low, Best, and High Estimates of Petrolia Inc.'s Petroleum Initially-In-Place in the Forillon Formation (As of September 30, 2017)

Area	Total Petroleum Initially-In-Place (TPIIP)			Discovered Petroleum Initially-In-Place (DPIIP)			Undiscovered Petroleum Initially-In-Place (UPIIP)		
	Pool Volumes (100% Working Interest) (Mbbl)								
	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]
Bourque North	26,000	99,000	199,000	0	0	0	26,000	99,000	199,000
Bourque South	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[4]	**256,000**	**827,000**	**1,606,000**	**23,000**	**62,000**	**115,000**	**233,000**	**765,000**	**1,491,000**

Area	Total Petroleum Initially-In-Place (TPIIP)			Discovered Petroleum Initially-In-Place (DPIIP)			Undiscovered Petroleum Initially-In-Place (UPIIP)		
	Company Working Interest Volumes (WI=51.03%) (Mbbl)								
	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]
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[4]	**130,637**	**422,018**	**819,542**	**11,737**	**31,639**	**58,685**	**118,900**	**390,380**	**760,857**

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Summation of the Low and High is provided for convenience and does not reflect the statistical P90 and P10 values

Sproule

Discussion

A. Lands

The Company's land holdings in the Bourque area of Quebec is located in the northwestern portion of the Gaspé Peninsula 30 km east of Murdochville and 50 km west of the town of Gaspé. This property consists of four permits, 51.03 percent owned by Pétrolia Inc.

License numbers for the four permits are: 2009PG496, 2009PG497, 2009PG498, and 2009PG504. These four Bourque permits cover approximately 183,518 acres (Figure 1).

B. Geology Evaluation

1. General Data

The Bourque Project area is situated along the northern arm of the Gaspé Peninsula in eastern Quebec. The Bourque Property is located 50 km northwest of the Haldimand property where light oil was discovered in the Early Devonian York River Formation. Light oil is being produced from the Forillon Formation by Junex Inc. in the Galt area, 35 km to the southeast of the Bourque Property.

The acquired 3D seismic data was processed at the end of 2008 and several drilling prospects were identified when the data was interpreted in early 2009.

In April 2012, the Company acquired permits to drill two wells. The first well, Bourque No. 1, was spud on July 19, 2012 and reached TD at 3,140 m MD (2,922 m TVD) on October 4, 2012.

A section of the Early Devonian Forillon Formation in the Bourque No. 1 well exhibited good porosity and flowed wet gas and recovered light oil in the tool chamber when tested in DSTs #3 and #6. A small volume of wet gas was also produced from other DST's run in the Forillon interval. The Early Devonian Forillon Formation is a fractured carbonate that is 865 metres gross thickness in this well.

The Bourque No. 2 well completed drilling on December 19, 2012 and reached a total depth of 2,680 m MD and several gas and oil shows were encountered, mainly in the Forillon section, during drilling. Drill stem test results showed that there was no measurable wet gas and only traces of light oil recovered from the Forillon Formation. The well has been temporarily suspended.

In 2016, the Company drilled two horizontal wells into the Forillon Formation; Bourque HZ No. 1 R1 (from re-entered Bourque No. 1 well) and the Bourque HZ No. 3 (from the same surface pad). Both wells were

subsequently acid stimulated and flow tested, however the Bourque HZ No. 3 well was only acid stimulated at the heel of the well. Test results indicated the Forillon Formation as a tight light black oil reservoir, with associated solution gas and natural gas liquids.

Also in 2015, the Company had reprocessed the 66 km^2 of the seismic data and a PSDM seismic volume was produced as part of its development program.

The Forillon Formation is considered to be the most prospective zone in the Bourque Project area and is the only formation where resources have been estimated.

2. Seismic Interpretation

The geological setting and petroleum system of the Bourque Project was described in Sproule's 2013 report.

As of 2013, the project covered 742.7 square kilometres (183,506 acres) in the Eastern part of the Gaspé Peninsula. The Company has 66 km^2 of acquired 3D seismic and 280 length km of reprocessed vintage 2D seismic data in the Bourque area.

In the 2013 Sproule report, four Forillon prospects were identified, and are summarized as follows:

- Bourque North prospect is a section of the Forillon Formation that is situated on the footwall on the north side of the Northwest Arm Fault (NAF). The Forillon Formation tested gas in the Bourque 1 well at a rate calculated to be 1.8 103m3/d (64 Mcf/d) in DST #6.
- Bourque Central prospect is a triangular section of the Forillon Formation that has been thrust up and deformed along the Northwest Arm Fault and is truncated to the south by an antithetic fault. This prospect has also been penetrated by the Bourque 1 well and tested gas at 8.5 103m3/d (301 Mcfd) in DST #3.
- Bourque South prospect is a large anticline that occurs south of the Bourque Central prospect and is bracketed by two antithetic faults that branch off to the south of the Northwest Arm Fault.
- Bourque-2 prospect lies north of the Northwest Arm (NWA) Fault near to the northern limit of the 3D seismic survey.

The main objectives of the geophysical analysis conducted by Sproule in 2017 were:

- to review/re-interpret the horizons and faults on the recently processed PSDM seismic data and calibrate it with the previously drilled Bourque No.1 and Bourque No. 2 wells; and recently drilled horizontal wells Bourque Hz No. 1 R1 and the Bourque Hz No. 3 (Figure 2).
- to integrate all available wells and seismic data in order to update the prospective and contingent resource areas located in the Bourque area.

The provided horizons and faults, as well as depth maps, were loaded into Petrel software. A detailed review was also conducted to insure consistency with well data, seismic reflectivity and the structural regime affecting the area.

The structural architecture of the Bourque area was defined by the mapped events on both sides of the NWA fault which separates the area into the northern and southern blocks. However, the area around the major strike slip fault remains interpretative due to the poor imagining of the seismic data.

Sproule's seismic interpretation process included the generation of several seismic attributes to highlight the structural features and fracture network. The key structural attributes are Structural smoothing, Variance and Ant Tracking. Additionally, the RAI (Relative Acoustic Impedance) attribute was used to map the lateral amplitude variation across the field which may be indicative of the rock properties and/or hydrocarbon lateral distribution.

The starting point for the fault finetuning process was the fault cut point interpreted in FMI data at the depth of 1660 metres KB in the Bourque 1 well. This point represents the intersection of the NWA fault with the Forillon Formation. Sproule's interpretation of the main fault was similar to the Company's; however, Sproule interpreted more faults on both sides of the NWA fault. These faults are steeply dipping faults, running parallel to the main NWA fault and reflecting the effects of the dextral strike slip movement within the area. These interpreted faults were positioned to reflect the reflector terminations and changes in dipping and/or amplitude lateral variations on both sides of each fault. Time slices on both the amplitude seismic and the generated seismic structural attributes were used for quality control of the fault interpretation process. It is worthwhile mentioning that in addition to the NWA fault reaching the surface, there is a possibility of having an ESE-WNW fault located in the Southern block extended above the Forillon Formation, due to the absence of well control and the distorted seismic image, this fault remains uncertain whether it reaches the surface or not.

Following the fault re-interpretation process, the Top Forillon and Forillon 2 horizons were fine-tuned. These horizons were gridded integrating the fault polygons, and four structural depth contour maps were produced representing the footwall and hanging wall at each level.

RMS amplitude maps were extracted from the generated RAI attribute cube at different levels to highlight the lateral variation and distribution of high anomalies in the seismic data.

Both horizontal wells were drilled with the well heel in the previously defined Bourque Central block, and the well toe in the previously defined Bourque South block. As the faults separating the blocks are minor, of low amplitude and most likely not sealing, these two blocks are now interpreted to be a single accumulation, and presented as Bourque South. The area immediately offsetting the production tests in Bourque Hz No. 1 R1 and Bourque Hz No. 3 is classified as discovered.

An updated area calculation of the three prospects (Bourque 2, North, and South) was done based on both the depth structural maps and amplitude lateral distribution.

3. Petrophysical Evaluation

Sproule conducted an independent petrophysical analysis of the Bourque No. 1 and Bourque No. 2 wells using the PRIZM module in Geographix software. The primary porosity in the rock matrix is very low. The formation is characterized by secondary vuggy porosity as seen on the FMI log (Figure 3). The objective of the analysis was to estimate the effective porosity in the rock matrix, fracture porosity, water saturation and net pay thickness to estimate the petroleum initial-in-place.

In the analysis, the volume of shale was computed as the minimum of two indicators: Gamma Ray and Neutron-Density combination.

The apparent porosity was calculated by taking the average of the density and neutron porosity values. In Bourque 1 well, the neutron shows abnormal behavior between the depth interval 1420 metres and 1600 metres due to the presence of boron in the formation. In this case, the density porosity is assumed as the apparent porosity for that interval.

The effective porosity (PHIE) was calculated by correcting for the estimated volume of shale within the formation.

The water saturation for the matrix portion was calculated using Modified Simandoux equation.

Effective porosity and water saturation histograms for the Forillon Formation from the two analyzed wells were used to provide the ranges for probabilistic volumetric calculations (Figures 4 and 5). The net pay thickness distribution (Figure 6) was generated by varying effective porosity cut-off from 0.5 percent to 5 percent. The volume of shale and water saturation cut-offs were kept constant at 25 percent and 50 percent, respectively.

4. Probabilistic Evaluation

The ranges of all reservoir parameters including area, net pay, porosity, water saturation and formation volume factor were estimated from the Sproule interpreted distributions using all available data. The P90, P10, P50 and Mean values were estimated from these distributions and were used as inputs for a probabilistic analysis.

The area ranges were estimated using the amplitude distribution maps where the areas with the highest amplitude values were considered as low cases.

Effective porosity and water saturation histograms (Figures 4 and 5) from the two analyzed wells were used to provide the ranges for probabilistic volumetric calculations. As mentioned above, the net pay thickness distribution was generated by varying the effective porosity cut-off from 0.5 percent to 5 percent in two vertical wells, Bourque No. 1 and Bourque No. 2 (Figure 6).

The values for formation volume factor distribution were estimated using the Bourque HZ No. 1 R1 well differential vaporization and separator test results to approximate the mean, and applying a distribution to incorporate the uncertainty of the formation volume factor over the reservoir.

Recovery factors were estimated for oil and solution gas production based on analogous reservoirs. A log-normal distribution of recovery factors was assumed (Figure 7).

Note that the end points on each parameter distributions were checked for reasonableness before being used in probabilistic evaluation. The probabilistic evaluation was conducted using GeoX software. As a result, the Discovered and unrisked Undiscovered PIIP volumes were estimated for the Forillon Formation for all three blocks in the Bourque area. Since the areas with Undiscovered resource are directly offsetting the areas with Discovered resource, Sproule estimated the chance of discovery of the prospective resources to be high at 90 percent. All other aspects used to estimate a chance of development risk are described in the Engineering Evaluation section of this report.

C. Engineering Evaluation

1. Project Description

The Bourque property had two wells drilled into the Forillon Formation in 2012. These wells, Bourque No. 1 and Bourque No. 2, gathered test and log information.

In 2016, Bourque No. 1 was re-entered and drilled as horizontal well Bourque HZ No. 1 R1. Also in 2016, Bourque HZ No. 3 was drilled as a horizontal well from the same surface pad as Bourque HZ No. 1 R1. Both wells were subsequently acid stimulated and flow tested. Test results indicate that this is a tight light black oil reservoir, with associated solution gas and natural gas liquids.

The Company has indicated that it plans to further develop this reservoir using horizontal multi stage frac technology (HMSF) widely implemented in western Canada and the United States.

2. Contingent and Prospective Resources Classification

The resources were classified in accordance with the Canadian Oil and Gas Evaluation Handbook (COGE Handbook) definitions presented in Appendix A that are consistent with NI 51-101 and used by Sproule.

Petroleum initially-in-place (PIIP) on the Company-interest lands were classified as discovered accumulations in areas offsetting the Bourque HZ No. 1 R1 and Bourque HZ No. 3 wells which positively tested for hydrocarbons based on a sustained production test. Bourque HZ No. 3 was landed approximately 10 metres below the top of the Forillon Formation, and the Bourque No. 1 R1 was landed approximately 84 metres below the top of the Forillon. The top 114 metres of the reservoir within the discovered area is classified as discovered, assuming that the Bourque HZ No. 1 R1 will be fracture stimulated and will recover hydrocarbons from 30 metres below the wellbore. Below 114 metres, the reservoir is classified as undiscovered. Sproule estimated a net to gross ratio of 0.56 within the discovered area, resulting in a net pay estimate of 64 metres.

PIIP within areas which are not directly offsetting the Bourque HZ No. 1 R1 and Bourque HZ No. 3 wells were classified as undiscovered. Bourque No. 2 did record gas and light oil on a DST test, but due to the limited information obtained from the DST, the area surrounding Bourque No. 2 is classified as undiscovered. The area which is classified as discovered is within the Bourque South block.

The reported Discovered Petroleum Initially-In-Place (DPIIP) and Undiscovered Petroleum Initially-In-Place (UPIIP), presented in Table D-1, are low, best, and high estimates which were estimated using the probabilistic method. Ranges were estimated for area, net pay thickness, porosity, water saturation, formation volume factor, oil recovery factor, and gas recovery factor, and are presented in Table D-2 for the entire evaluated area, and Table D-3 for the Contingent Resources area.

Estimates of the volumes of Company interest recoverable oil, recoverable gas and recoverable natural gas liquids are provided as low, best and high estimates, recognizing the uncertainty of those volumes being recovered. Recoverable volumes were estimated using a probabilistic model, incorporating the recovery factor uncertainty in conjunction with the parameters used to estimate petroleum initially-in-place.

The estimated recoverable sales volumes are presented in Table D-4 for the Company's working interest volume and Table D-5 for the pool interest volumes. Recoverable volumes estimated from discovered areas are classified as contingent resources. Recoverable volumes estimated from undiscovered areas are classified as prospective resources.

The contingent resources are further sub-classified as development unclarified, as discussed further in the Recovery Technology section of this report.

The prospective resources are further sub-classified as a prospect, based on their proximity to a discovered accumulation.

3. Recovery Technology

The Company's proposed development plan relies on HMSF development. HMSF development has proven successful in a variety of tight oil and gas reservoirs in western Canada and the United States. Development using HMSF technology has also occurred in other areas of the world.

The Forillon Reservoir is estimated to be in the 0.01-0.02 mD permeability range. Analogous reservoirs of this permeability range have been successfully developed using HMSF technology, however, most of these analogous reservoirs are in tight sandstone and shale reservoirs. Less analogies are available for tight carbonate reservoirs using HMSF technology. Two analogies which were considered were the Slave Point carbonate reservoir in Alberta and the Austin Chalk reservoir in Texas. Both of these reservoirs have been successfully developed using HMSF technology, however, are not considered to be good analogues due the difference in reservoir parameters. Thus, horizontal multi-stage frac technology is classified as Technology Under Development for the Forillon Reservoir.

4. Contingencies

4.1 Regulatory Approval

The Company has not submitted a regulatory application to develop for the remaining contingent resource volumes, which coincide with the contingent resource volumes in the Bourque area. The absence of the submission of an application to expand the development has resulted in the contingency. Once the application has been submitted and approved, this contingency would be lifted.

4.2 Economic Factors

The future pricing market and capital costs associated with this project will affect the future commerciality. When the capital costs and product prices reach a level where the project economics are acceptable to the Company, this contingency would be lifted.

Due to the uncertainty regarding the future production profile of the wells in the reservoir, the future cost and price requirements which are needed to commercially produce the Bourque assets are unknown.

4.3 Corporate Commitment

There has been no final investment decision and endorsement from the Company to move forward with commercial development of this asset. It is likely that a final investment decision to approve this project will not occur for several years. Additionally, a detailed development plan has not been determined and further work needs to be completed to confirm how the resources will be developed. It is anticipated that as the development plan is refined, the Company would be able to make a final investment decision, at which point this contingency would be lifted.

4.4 Timing of Production and Development

The timing of production and development detailed in this report is estimated to commence beyond the reasonable time periods described in the COGE Handbook as a requirement for classification as reserves. It is expected that as development planning continues, the timing of production and development will fall within the timeframes and certainty required for reserves classification, at which time this contingency would be lifted.

4.5 Market Access

Current infrastructure in the Bourque area does not allow access to pipelines or existing facilities. This has restricted the volumes of produced hydrocarbon from the Bourque area that can access viable markets. The Company will need to build pipelines and facilities to allow for the product to reach markets. Once this has been completed or will be completed in the near term, this contingency would be lifted.

4.6 Technology Under Development

The technology required to commercially develop the Bourque area is not currently available, nor is it under active development. When the technology becomes available for the Company to proceed with development, this contingency would be lifted.

As noted above in the Recovery Technology section, HMSF technology has not been attempted in this reservoir. This technology has been successfully implemented in other carbonate reservoirs, for example the Slave Point reservoir in Alberta and the Austin Chalk reservoir in Texas. These reservoirs indicate the potential of this technology in the Forillon reservoir, but are not considered good analogues.

The Company plans to address this contingency by applying HMSF technology to the Forillon reservoir in the Bourque No. 1 R1 well.

4.7 Political Factors

The Government of Quebec had previously imposed a hydraulic fracturing moratorium within the province of Quebec. This ban was lifted in late 2016. While no hydraulic fracturing moratorium currently exists, there is still a chance that political pressures could cause new moratoriums to be implemented. Once horizontal multi-stage fractured wells are developed in Quebec with no change to applicable policies, this contingency would be lifted.

4.8 Social License

The Company is currently developing the Bourque area in the Gaspe region of Quebec. Quebec has previously restricted certain types of development due to environmental concerns. Protests at other oil and gas sites in the province, in which HMSF development did not occur, indicate that the Bourque development may have similar or larger protests. Such protests could delay the project, or put pressure on the commerciality of the project. The Company will need to obtain an agreement to develop the lands, and show that HMSF development can occur within Quebec, at which point this contingency would be lifted.

The estimated chance that the contingencies identified will be resolved have been quantified and have been presented in Table D-6.

Contingencies identified in the COGE Handbook Volume 2 Section 2.5.4 that were not identified as applicable to the Bourque area development at this time include Evaluation Drilling and Legal Factors.

5. Project Evaluation Status

Sproule classifies the project evaluation status of both the contingent and prospective resource volumes attributed to development in the Bourque area to be at the Conceptual studies level. Further work to delineate the accumulation and to estimate recoverable volumes is needed before the project moves to the Pre-development study status.

6. Project Maturity Subclass

Horizontal multi-stage frac technology has not yet been attempted within this reservoir, and may not be allowed due to regulatory, political, or social license restrictions. If HMSF development does not occur, or is not successful, the Company may investigate other development plans. Due to this uncertainty, the contingent resources were sub-classified as development unclarified. The Company plans to clarify this development plan by multi-stage fracing of the Bourque No. 1 R1 well and the Bourque No. 3 well. The initial completion design plan is for an 18 stage, 30 tonne per stage slickwater frac, using sand as the proppant. This design is similar to current completion techniques in the Slave Point reservoir. Results of

this pilot frac program is estimated to be obtained in 2018 and will allow for more clarity regarding the contingent resource project maturity subclass.

The prospective resource volumes in this report are classified as a Prospect. As the prospective areas are in the same formation and are adjacent to the discovered resource area, the prospective areas represent a viable drilling target.

7. Economic Status

Sproule evaluated the Company's development plan for the contingent resources in the Bourque area and found these contingent resources to be Economic Status Undetermined.

The Company is working to obtain more information regarding the economic viability by undertaking a pilot multi-stage frac program on the Bourque No. 1 R1 and Bourque No. 3 wells. Results of this pilot frac program is estimated to be obtained in 2018 and will allow for more clarity regarding the economic status of this project.

8. Chance of Development Risk

All contingent resource volumes outlined in this report are classified as Economic Status Undetermined, Development Unclarified and, in Sproule's opinion, have a low probability of becoming a commercial development. In recognition of the risk of commerciality of resource volumes, a 30 percent chance of development risk factor has been applied to the total recoverable volumes. This chance of development risk factor is an aggregation of risk factors attributable to the eight contingencies identified for the project. Regulatory Approval, Economic Factors, Corporate Commitment, Timing of Production and Development, Technology Under Development, Legal Factors, Infrastructure and Market, Political Factors, and Social License have been incorporated as a 30 percent chance of occurrence and applied to the unrisked best estimate contingent resources volumes.

Prospective resources carry an additional risk related to chance of discovery. Sproule estimates the chance of discovery of the prospective resources to be 90 percent. Combined with the above chance of development risk, a 26 percent chance of occurrence is applied to the unrisked best estimate prospective resources volumes.

9. Positive and Negative Factors

Key positive factors relevant to the contingent resource estimate for development in the Bourque area include:

- Success of horizontal multi-stage frac projects in other naturally fractured carbonate reservoirs in North America
- A discovered thick oil column (300+ metres net pay) providing significant in place potential
- Refining facilities in Quebec which would be likely provide a market
- A commercial project in the Forillon reservoir (Junex Inc Galt project) indicating a chance of commerciality in the area

Key negative factors relevant to the contingent resource estimate for development in the Bourque area include:

- A lower porosity than the analogue Slave Point carbonate reservoir which has been successfully developed
- Uncertainty as to the suitability of horizontal multi-stage frac technology in this formation
- Historic political and social resistance in Quebec related to hydrocarbon development, specifically fracing technology
- Uncertainty regarding the economic viability of the project

10. Resource Estimates

Table S-1 presents the low, best, and high estimates of volumes of the Company's unrisked contingent and prospective resources, and best estimate risked contingent and prospective resources in the Bourque area of Quebec, as of September 30, 2017. Table S-1A presents the low, best, and high estimates of the pool volume unrisked contingent resources, and the best estimate risked contingent and prospective resources in the Bourque area of Quebec, as of September 30, 2017.

Table S-2 summarizes the low, best, and high estimates of petroleum initially-in-place. Risked contingent resources have been risked for chance of commerciality. Risked prospective resources have also been risked for chance of discovery, which is incorporated into the risked chance of commerciality.

11. Project Development Forecasts

Due to the early stage of development of this project, production forecasts and economic forecasts were not developed for this report.

Table D-1

Low, Best, and High Estimates of Petrolia Inc.'s Petroleum Initially-In-Place in the Forillon Formation (As of September 30, 2017)

Area	Total Petroleum Initially-In-Place (TPIIP)			Discovered Petroleum Initially-In-Place (DPIIP)			Undiscovered Petroleum Initially-In-Place (UPIIP)		
	Pool Volumes (100% Working Interest) (Mbbl)								
	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]
Bourque North	26,000	99,000	199,000	0	0	0	26,000	99,000	199,000
Bourque South	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[4]	**256,000**	**827,000**	**1,606,000**	**23,000**	**62,000**	**115,000**	**233,000**	**765,000**	**1,491,000**

Area	Total Petroleum Initially-In-Place (TPIIP)			Discovered Petroleum Initially-In-Place (DPIIP)			Undiscovered Petroleum Initially-In-Place (UPIIP)		
	Company Working Interest Volumes (51.03% Working Interest) (Mbbl)								
	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]	Low[1]	Best[2]	High[3]
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[4]	**130,637**	**422,018**	**819,542**	**11,737**	**31,639**	**58,685**	**118,900**	**390,380**	**760,857**

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Summation of the Low and High is provided for convenience and does not reflect the statistical P90 and P10 values

Sproule

Table D-2

Input Parameters for the Total Petroleum Initially-In-Place Probabilistic Model of the Forillon Formation (As of September 30, 2017)

Area	Parameter	Distribution type	P90	P50	P10	Mean	Data Source
Bourque North	Area (acres)	LNP90P01	275	500	909	555	Geophysics
	Net Thickness (ft)	Ln2LoHi	979	1217	1512	1234	Petrophysics
	Porosity [%]	Ln2LoHi	1.0	2.2	5.0	2.7	Petrophysics
	Oil saturation [%]	LNP1P99	91.6	93.9	96.3	93.9	Petrophysics
	Oil formation factor (Bo) [bbl/STB]	NrmLoHi	1.30	1.38	1.45	1.38	Engineering
	Solution Gas/Oil Ration (scf/STB)	NrmLoHi	500	700	900	700	Engineering
	Oil Recovery Factor (%)	LNP90P01	1.0	2.7	7.3	3.6	Engineering
	Gas Recovery Factor (%)	LNP90P01	30.0	44.0	64.4	45.9	Engineering
Bourque South	Area (acres)	LNP90P01	2490	3490	4892	3608	Geophysics
	Net Thickness (ft)	Ln2LoHi	979	1217	1512	1234	Petrophysics
	Porosity [%]	Ln2LoHi	1.0	2.2	5.0	2.7	Petrophysics
	Oil saturation [%]	LNP1P99	91.6	93.9	96.3	93.9	Petrophysics
	Oil formation factor (Bo) [bbl/STB]	NrmLoHi	1.30	1.38	1.45	1.38	Engineering
	Solution Gas/Oil Ration (scf/STB)	NrmLoHi	500	700	900	700	Engineering
	Oil Recovery Factor (%)	LNP90P01	1.0	2.7	7.3	3.6	Engineering
	Gas Recovery Factor (%)	LNP90P01	30.0	44.0	64.4	45.9	Engineering
Bourque-2 Area	Area (acres)	LNP90P01	270	449	747	484	Geophysics
	Thickness (ft)	Ln2LoHi	979	1148	1346	1156	Petrophysics
	Porosity [%]	Ln2LoHi	1.0	2.2	5.0	2.7	Petrophysics
	Oil saturation [%]	LNP1P99	91.6	93.9	96.3	93.9	Petrophysics
	Oil formation factor (Bo) [bbl/STB]	NrmLoHi	1.30	1.38	1.45	1.38	Engineering
	Solution Gas/Oil Ration (scf/STB)	NrmLoHi	500	700	900	700	Engineering
	Oil Recovery Factor (%)	LNP90P01	1.0	2.7	7.3	3.6	Engineering
	Gas Recovery Factor (%)	LNP90P01	30.0	44.0	64.4	45.9	Engineering

Table D-3

Input Parameters for the Discovered Petroleum Initially-In-Place Probabilistic Model of the Forillon Formation (As of September 30, 2017)

Area	Parameter	Distribution type	P90	P50	P10	Mean	Data Source
Bourque South	Area (acres)	Const	2200	2200	2200	2200	Geophysics
	Net Thickness (ft)	Const	193	193	193	193	Petrophysics
	Porosity [%]	Ln2LoHi	1.0	2.2	5.0	2.7	Petrophysics
	Oil saturation [%]	LNP1P99	91.6	93.9	96.3	93.9	Petrophysics
	Oil formation factor (Bo) [bbl/STB]	NrmLoHi	1.30	1.38	1.45	1.38	Engineering
	Solution Gas/Oil Ration (scf/STB)	NrmLoHi	500	700	900	700	Engineering
	Oil Recovery Factor (%)	LNP90P01	1.0	2.7	7.3	3.6	Engineering
	Gas Recovery Factor (%)	LNP90P01	30.0	44.0	64.4	45.9	Engineering

Table D-4

Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area
(As of September 30, 2017)

Company Working Interest Volumes (51.03% WI)

Area		Contingent Resources[5]				Prospective Resources[6]			
		Unrisked			Risked[8]	Unrisked			Risked[9]
		Low[1]	Best[2]	High[3]	Best[2]	Low[1]	Best[2]	High[3]	Best[2]
Bourque North	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	244.4	1,009.4	4,162.5	**262.4**
	Solution Gas (MMcf)	0	0	0	**0**	3,331	10,058	30,529	**2,615**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	96.6	291.7	885.3	**75.8**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	896.1	2,977.4	10,136.0	**774.1**
Bourque South	Light & Medium Oil (Mbbl)	199.0	1,143.6	2,536.2	**343.1**	1,672.3	6,329.8	24,197.4	**1,645.7**
	Solution Gas (MMcf)	2,786	9,060	17,787	**2,718**	23,018	63,486	174,689	**16,506**
	NGL (Mbbl)	80.8	262.7	515.8	**78.8**	667.5	1,841.1	5,066.0	**478.7**
	Total (Mboe)	744.2	2,916.2	6,016.5	**874.9**	6,176.0	18,751.9	58,378.3	**4,875.5**
Bourque-2 Area	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	215.3	857.3	3,347.1	**222.9**
	Solution Gas (MMcf)	0	0	0	**0**	30	85	245	**22**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	0.9	2.5	7.1	**0.6**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	221.2	874.0	3,395.0	**227.2**
Grand Total[4]	**Light & Medium Oil (Mbbl)**	**199.0**	**1,143.6**	**2,536.2**	**343.1**	**2,132.0**	**8,196.4**	**31,707.0**	**2,131.1**
	Solution Gas (MMcf)	**2,786.4**	**9,059.6**	**17,787.1**	**2,717.9**	**26,378.2**	**73,629.7**	**205,463.6**	**19,143.7**
	NGL (Mbbl)	**80.8**	**262.7**	**515.8**	**78.8**	**765.0**	**2,135.3**	**5,958.4**	**555.2**
	Total (Mboe)	**744.2**	**2,916.2**	**6,016.5**	**874.9**	**7,293.4**	**22,603.3**	**71,909.4**	**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) Summation of the Low and High is provided for convenience and does not reflect the statistical P90 and P10 values

(5) Contingent Resources are sub-classified as Contingent - Development Unclarified

(6) Prospective Resources are sub-classified as Prospective - Prospect

(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)

(9) Risked: A 26 percent chance of development risk (74 percent chance of not proceeding with development)

(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

Table D-5

Low, Best, and High Estimates of Petrolia Inc.'s P&NG Resources in the Forillon Formation by Sub-Area
(As of September 30, 2017)

Pool Volumes (100% Working Interest)

Area		Contingent Resources[5]				Prospective Resources[6]			
		Unrisked			Risked[8]	Unrisked			Risked[9]
		Low[1]	Best[2]	High[3]	Best[2]	Low[1]	Best[2]	High[3]	Best[2]
Bourque North	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	479.0	1,978.0	8,157.0	**514.3**
	Solution Gas (MMcf)	0	0	0	**0**	6,527	19,710	59,826	**5,125**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	189.3	571.6	1,734.9	**148.6**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	1,756.1	5,834.6	19,862.9	**1,517.0**
Bourque South	Light & Medium Oil (Mbbl)	390.0	2,241.0	2,536.2	**672.3**	3,277.0	12,404.0	47,418.0	**3,225.0**
	Solution Gas (MMcf)	5,460	17,753	34,856	**5,326**	45,106	124,410	342,327	**32,347**
	NGL (Mbbl)	158.3	514.8	1,010.8	**154.5**	1,308.1	3,607.9	9,927.5	**938.0**
	Total (Mboe)	1,458.4	5,714.7	9,356.4	**1,714.4**	12,102.8	36,746.8	114,399.9	**9,554.2**
Bourque-2 Area	Light & Medium Oil (Mbbl)	0.0	0.0	0.0	**0.0**	422.0	1,680.0	6,559.0	**436.8**
	Solution Gas (MMcf)	0	0	0	**0**	59	167	481	**44**
	NGL (Mbbl)	0.0	0.0	0.0	**0.0**	1.7	4.9	13.9	**1.3**
	Total (Mboe)	0.0	0.0	0.0	**0.0**	433.4	1,712.8	6,653.0	**445.3**
Grand Total[4]	**Light & Medium Oil (Mbbl)**	**390.0**	**2,241.0**	**2,536.2**	**672.3**	**4,178.0**	**16,062.0**	**62,134.0**	**4,176.1**
	Solution Gas (MMcf)	**5,460**	**17,753**	**34,856**	**5,326**	**51,692**	**144,287**	**402,633**	**37,515**
	NGL (Mbbl)	**158.3**	**514.8**	**1,010.8**	**154.5**	**1,499.1**	**4,184.3**	**11,676.4**	**1,087.9**
	Total (Mboe)	**1,458.4**	**5,714.7**	**9,356.4**	**1,714.4**	**14,292.3**	**44,294.2**	**140,915.9**	**11,516.5**

(1) Low represents the P90 volume estimate

(2) Best represents the mean volume estimate

(3) High represents the P10 volume estimate

(4) Summation of the Low and High is provided for convenience and does not reflect the statistical P90 and P10 values

(5) Contingent Resources are sub-classified as Contingent - Development Unclarified

(6) Prospective Resources are sub-classified as Prospective - Prospect

(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)

(9) Risked: A 26 percent chance of development risk (74 percent chance of not proceeding with development)

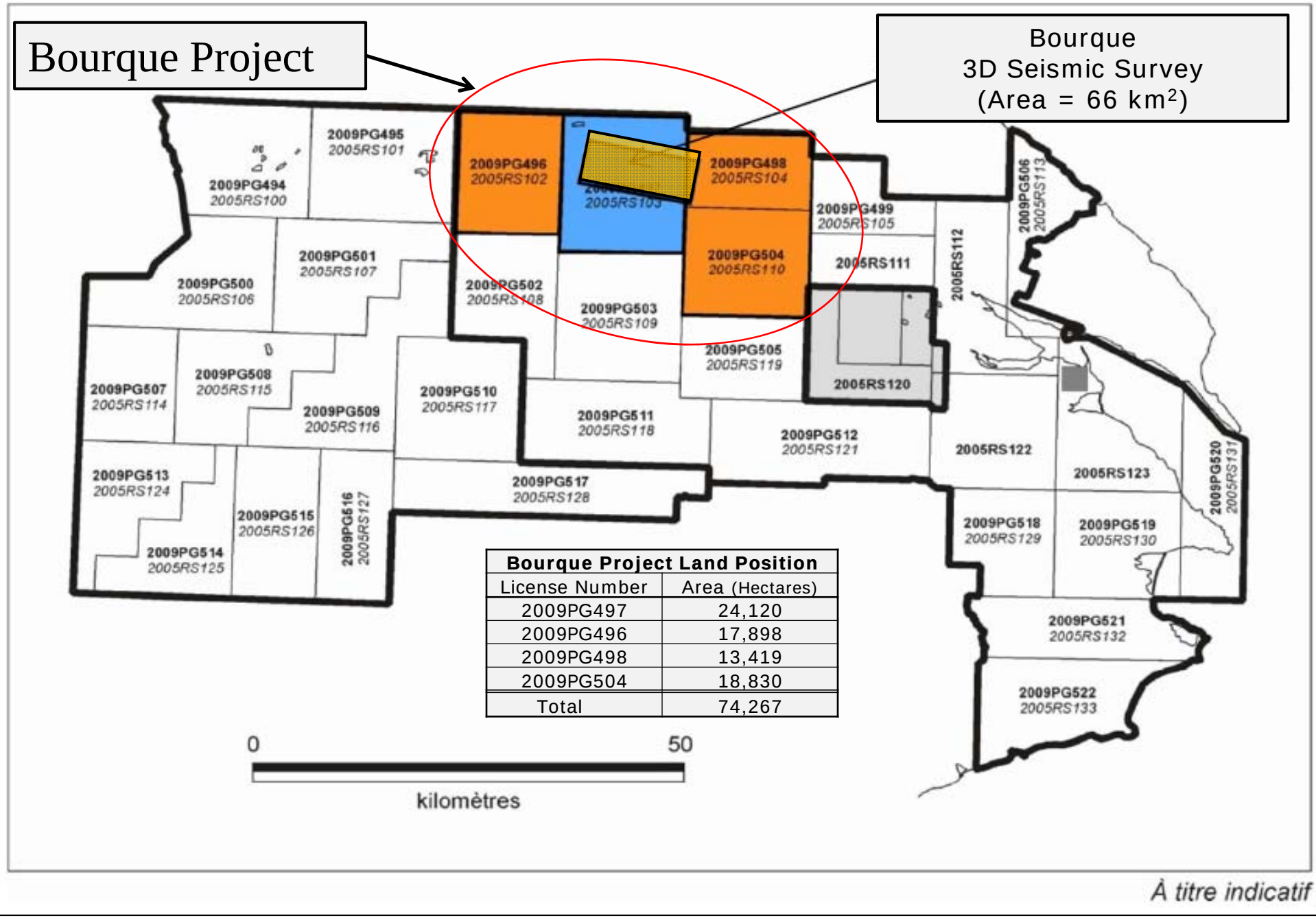
(10) Oil resources are presented in thousands of barrels, at stock tank conditions

(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

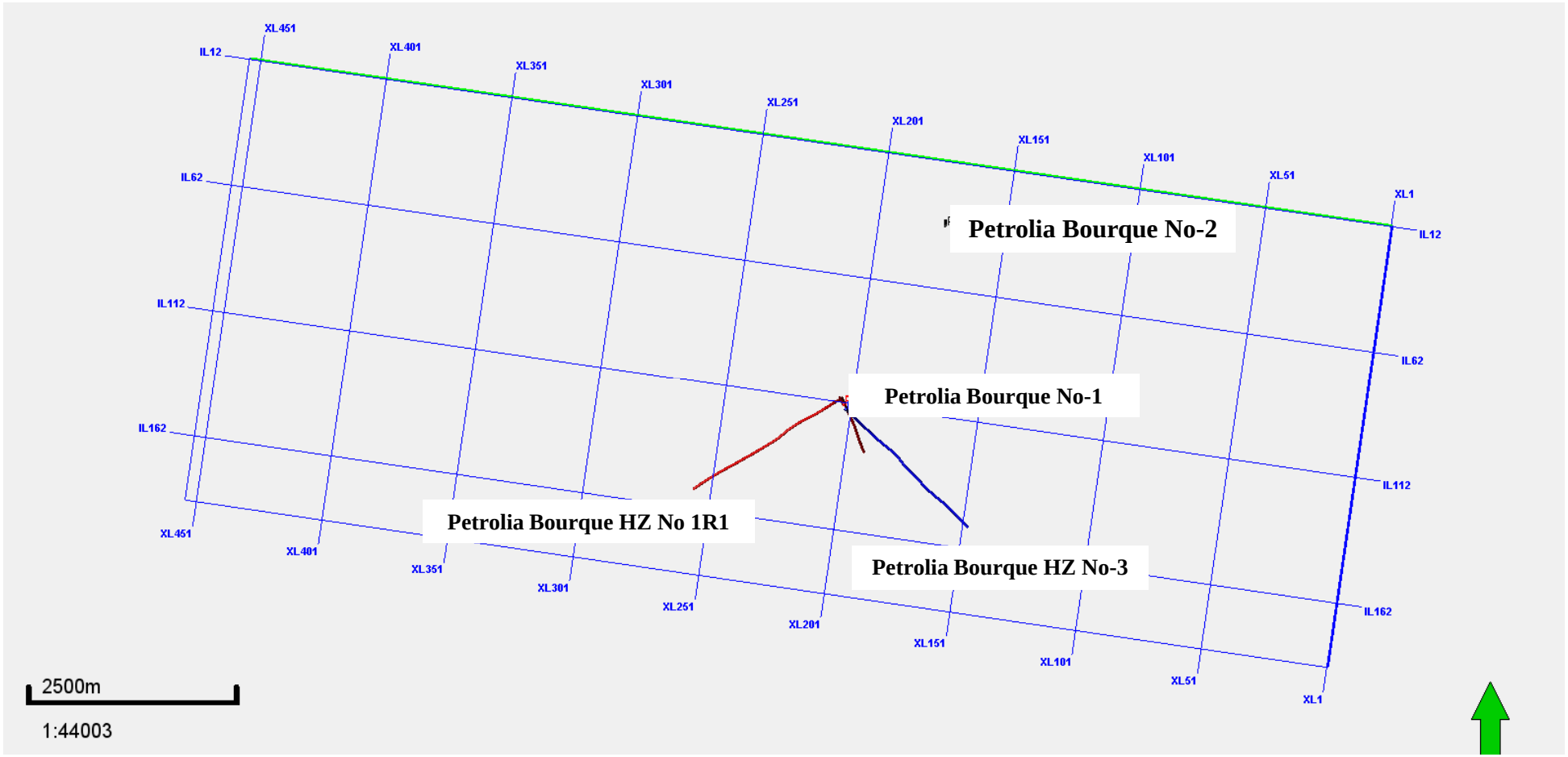
Sproule

Table D-6		
Contingent and Prospective Resources Project Chance of Commerciality Estimates (As of September 30, 2017)		
Risk	**Contingent Resources**	**Prospective Resources**
Regulatory Approval	0.95	0.95
Economic Factors	0.65	0.65
Corporate Commitment	0.9	0.9
Timing of Prod & Dev	0.95	0.95
Market Access	0.95	0.95
Technology Under Development	0.8	0.8
Political Factors	0.9	0.9
Social License	0.82	0.8
Chance of Discovery	1	0.9
Aggregate	**0.30**	**0.26**



Bourque Project Land Position	
License Number	Area (Hectares)
2009PG497	24,120
2009PG496	17,898
2009PG498	13,419
2009PG504	18,830
Total	74,267

Gaspe Region, Bourque Project Land Position

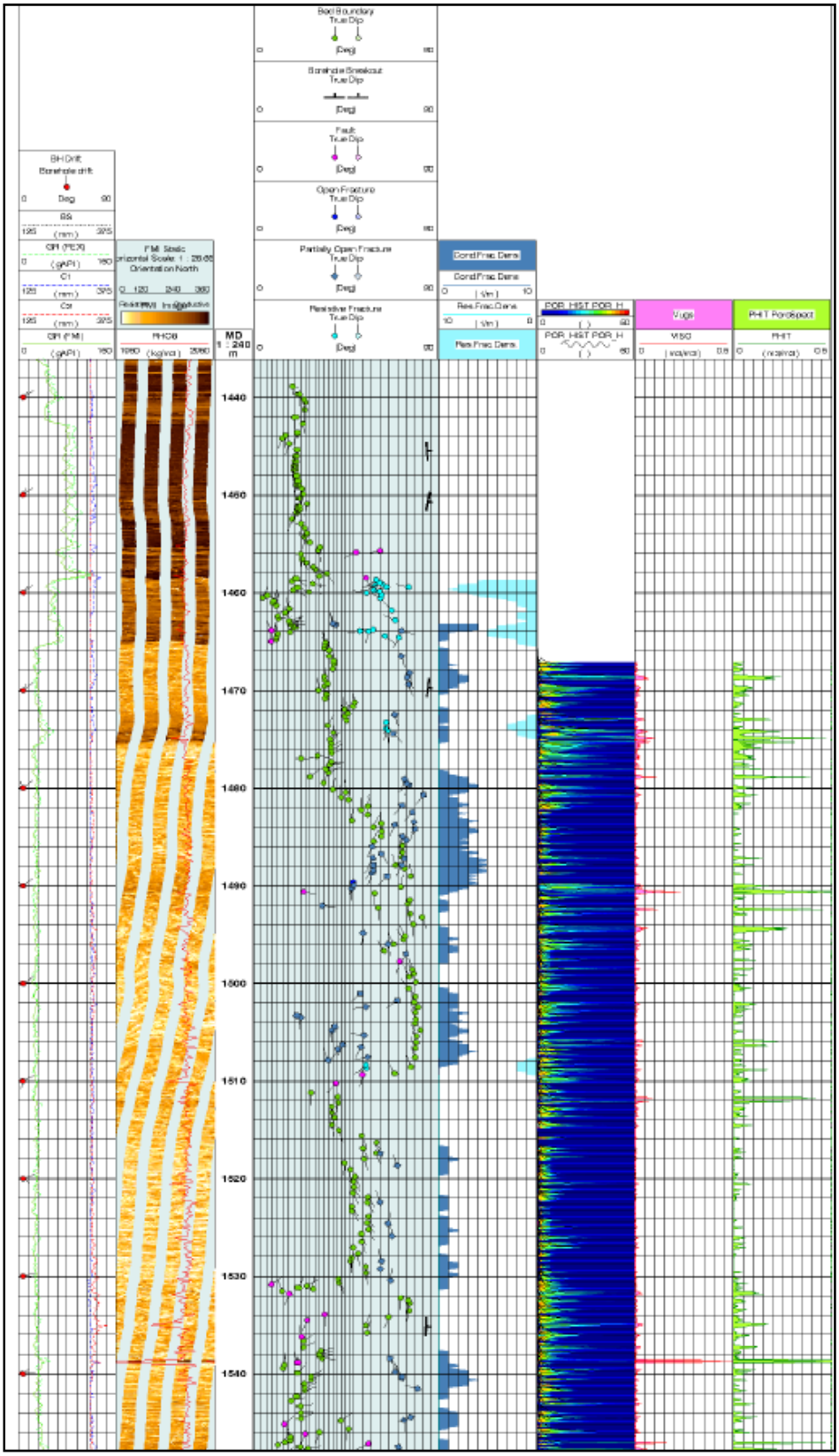


Seismic Coverage and Well Availability

22061

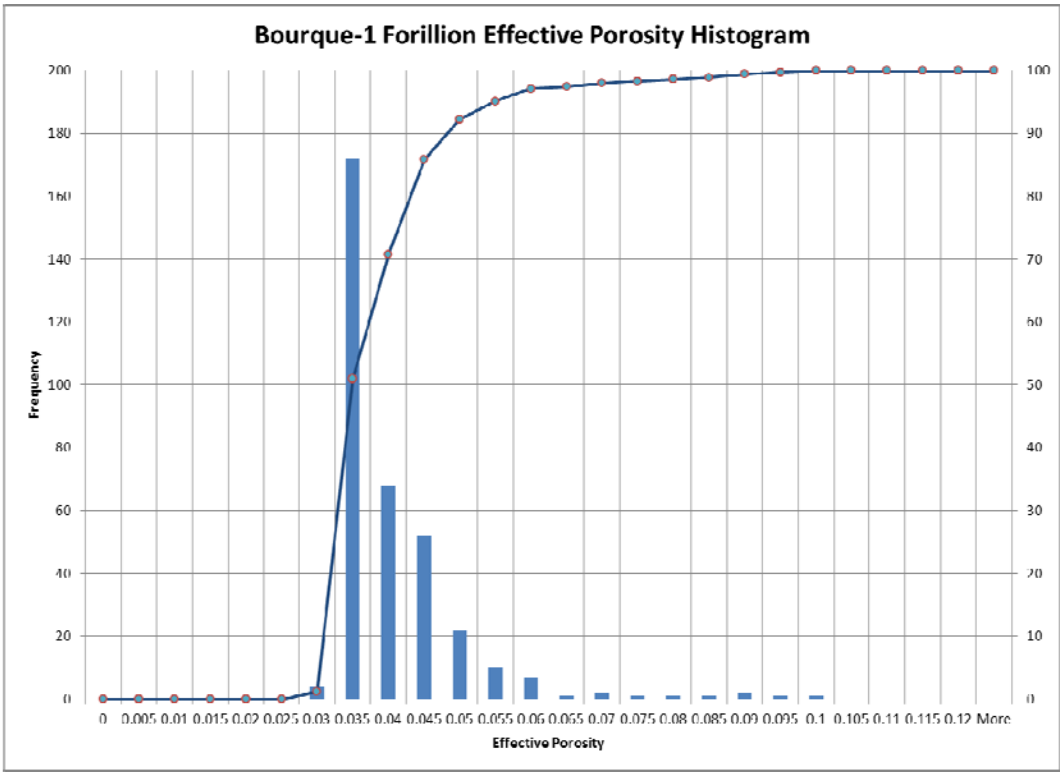
Sproule

Figure 2

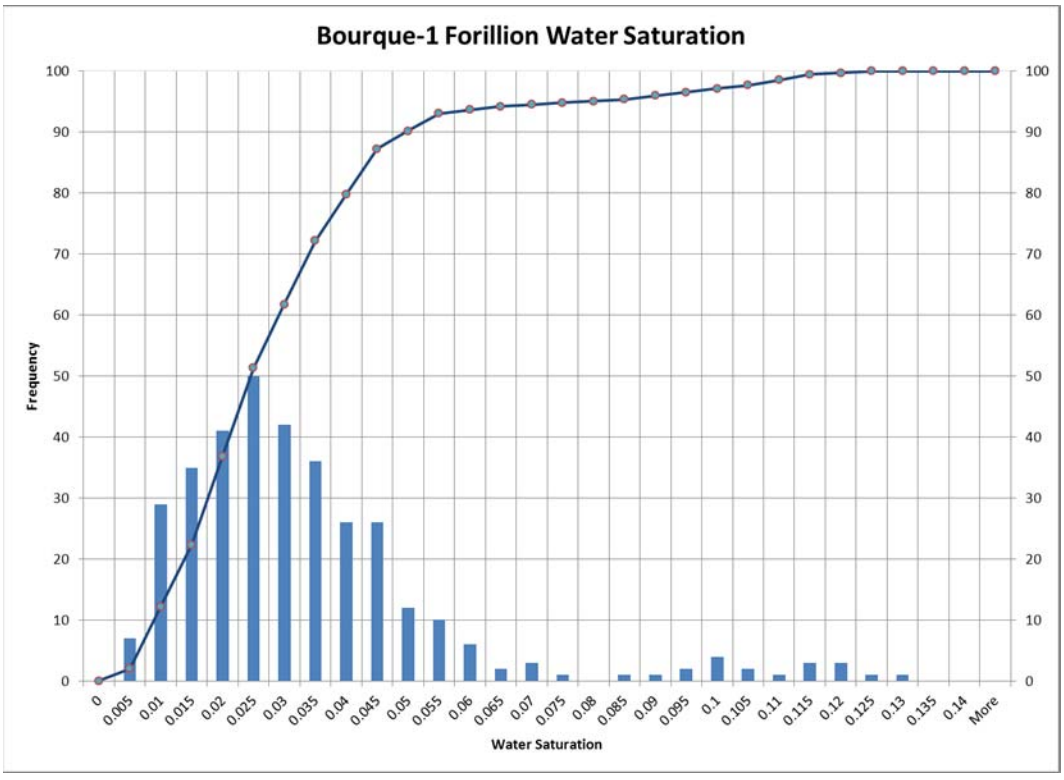


FMI Results from Petrolia Bourque 1 Well

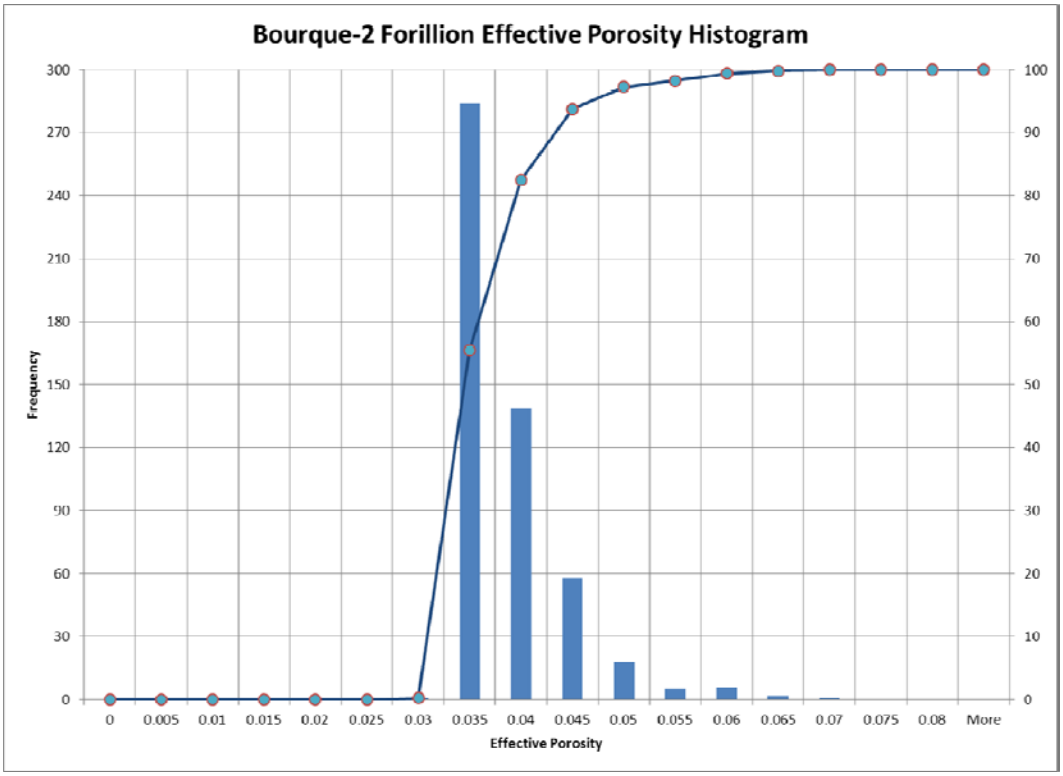
Sproule



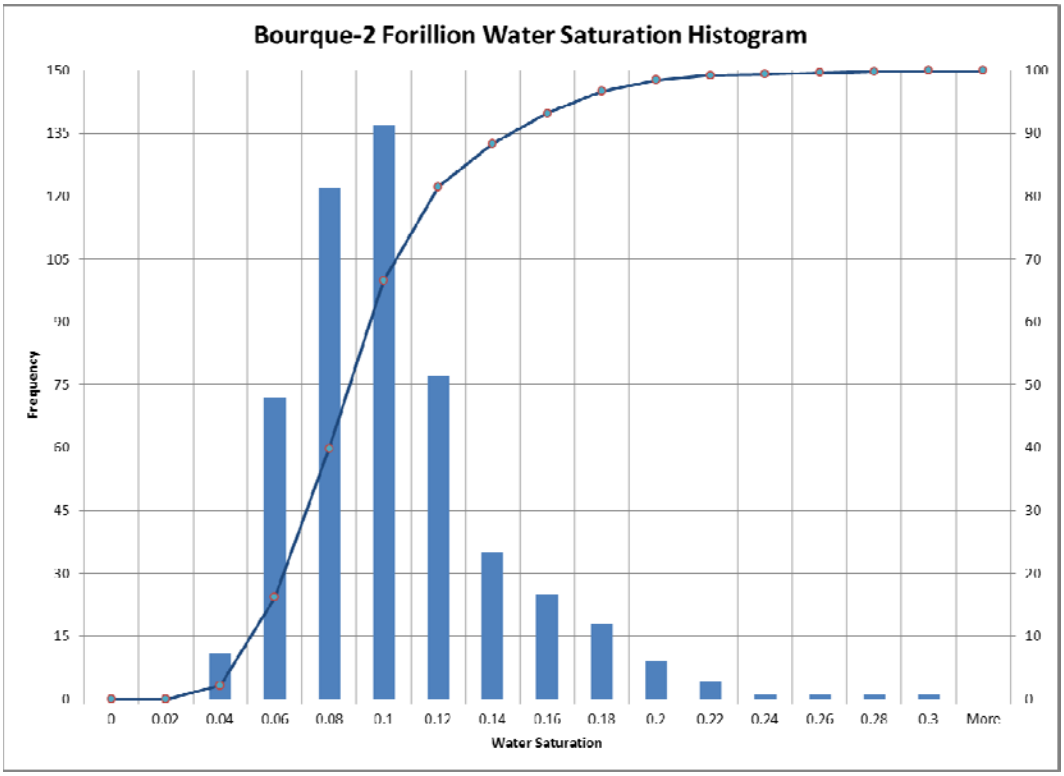
Bourque 1: Effective Porosity Distribution for the Forillon Interval.



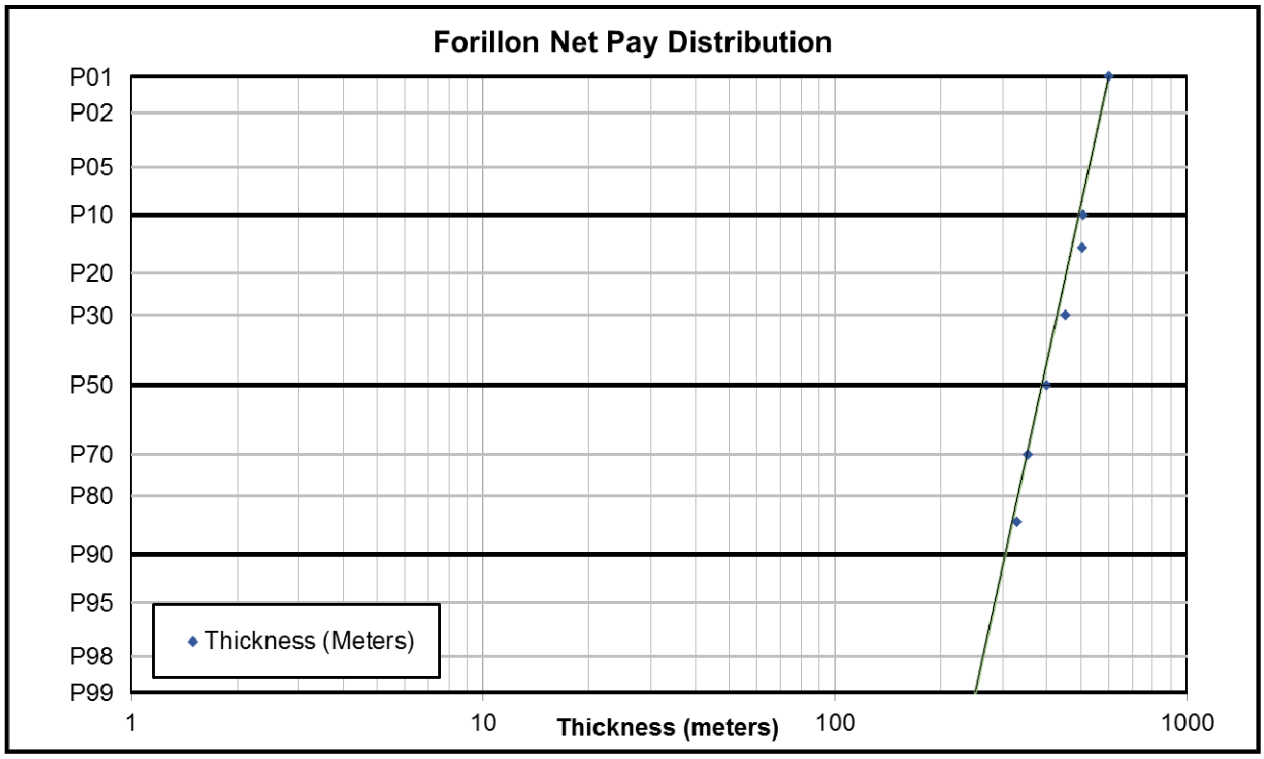
Bourque 1: Average Water Saturation Distribution for the Forillon Interval



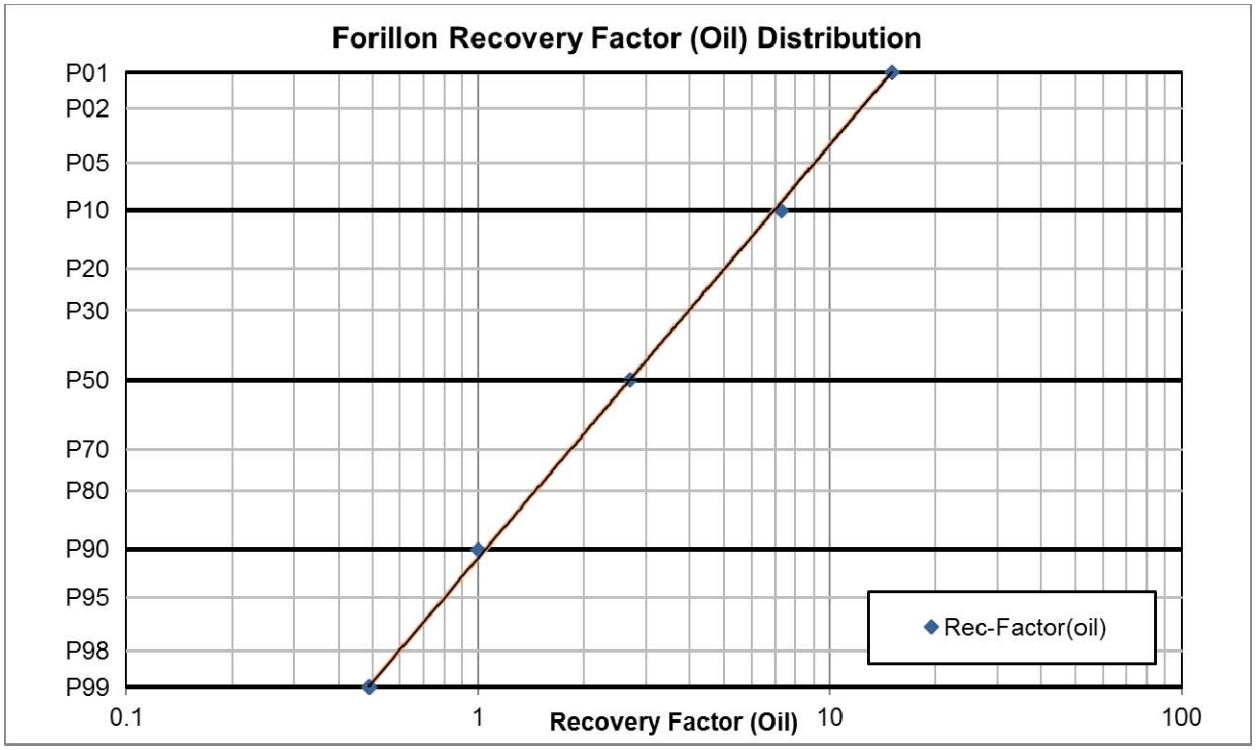
Bourque 2: Effective Porosity Distribution for the Forillon Interval

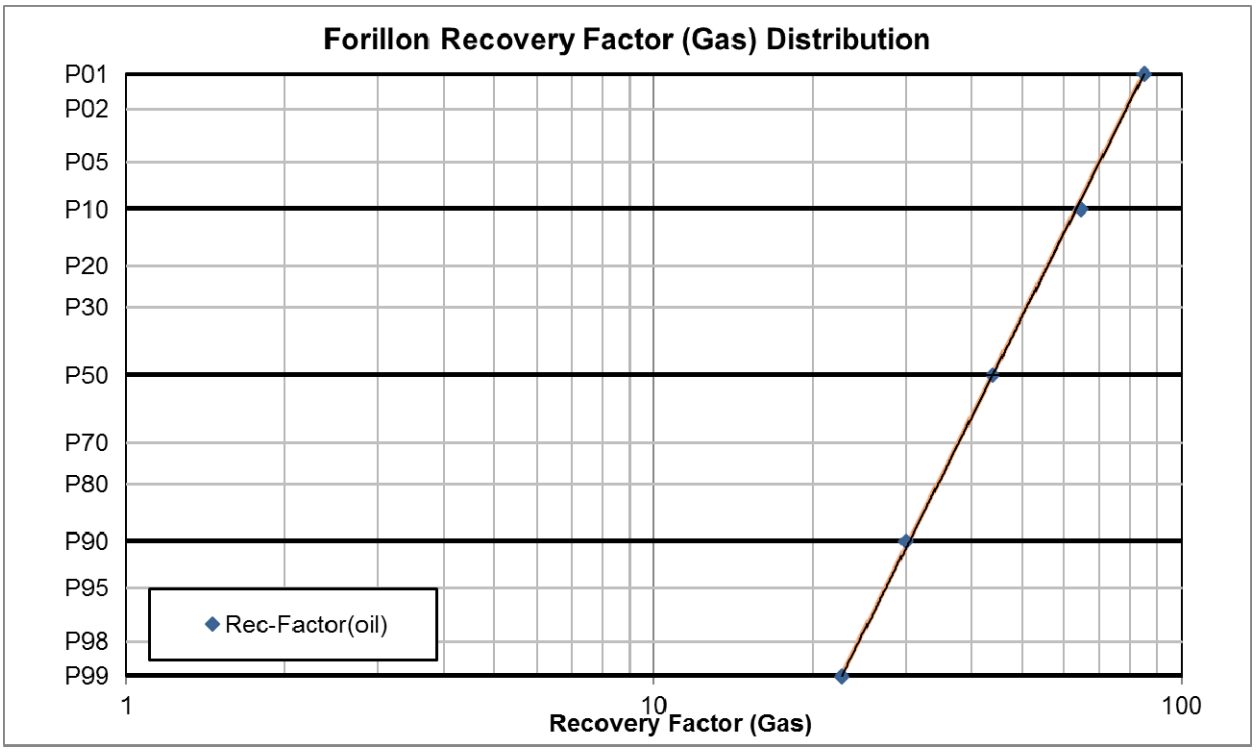


Bourque 2: Average Water Saturation Distribution for the Forillon Interval



Forillon Net Pay Distribution





Forillon Recovery Factor Distributions

Appendix A — Resource Definitions
Canadian Oil and Gas Evaluation Handbook, Resources Other Than Reserves

In June 2014 the Society of Petroleum Evaluation Engineers (SPEE) published additional guidance regarding the evaluation of "resources other than reserves" (ROTR) in the Canadian Oil and Gas Evaluation Handbook (COGEH), Volume 2, Section 2 to supplement the existing guidance for the evaluation of resources in COGEH Volume 1, Section 5.

This discussion has been excerpted from Sections 5.1, 5.2 and 5.3 of COGEH Volume 1, Second Edition, September 1, 2007 and COGEH Volume 2, Section 2, First Edition, June 2014. Modifications to the original text to provide clarification based on the additional ROTR guidance have been included as *underlined italics*.

The following has been excerpted from COGEH Volume 1.

5.1.2 Introduction

Petroleum is defined as a naturally occurring mixture consisting predominantly of hydrocarbons in the gaseous, liquid, or solid phase. The term "resources" encompasses all petroleum quantities that originally existed on or within the earth's crust in naturally occurring accumulations, including discovered and undiscovered (recoverable and unrecoverable) plus quantities already produced. Accordingly, total resources is equivalent to total Petroleum Initially-In-Place (PIIP). It is recommended that the term "total PIIP" be used rather than "total resources" in order to avoid any confusion that may result from the mixed historical usage of the term "resources" to mean the recoverable portion of PIIP or total PIIP. (Vol. 1, Sec. 5, p. 3)

It should be noted that COGEH Volume 2, Section 2 preferentially utilizes "initially in place" within the document, despite previously defining "initially-in-place" in conjunction with the Society of Petroleum Engineers Petroleum Resource Management System (SPE-PRMS) guidelines. National Instrument 51-101 (NI 51-101) has adopted "initially-in-place" as the standard terminology, which has been used throughout the report except in this appendix, which is excerpted from COGEH Volumes 1 and 2 and mimics the terminology utilized in each volume.

The following has been excerpted from COGEH Volume 2.

The concept of a project is central to COGEH, and a project is required for the evaluation of any resource class. *A project is defined as*:

"a defined activity, or set of activities, that provides the basis for the assessment and classification of resources."

This definition is general in nature and could apply to the assessment of any resource class, including PIIP. It may be useful to identify the type of project as, for example: exploration project, recovery project, processing improvement project. […] For the assessment of recoverable resources, […] a basic requirement is that it must be possible to define a technically feasible recovery project. *A project is further categorized based on the technology development process, recovery technology status and selection, commerciality, recovery project evaluation scenario and status, and project maturity sub-classes*. (Vol. 2, Sec. 2, p. 41)

It is important to recognize clearly the distinction between a project and an accumulation. An accumulation may be subject to more than one project, with each one requiring separate approvals and final investment decision.

The use of project maturity subclasses is relevant for all resource classes and […] is particularly useful for characterizing projects addressing unconventional resources. (Vol. 2, Sec. 2, pp. 58-59)

The following has been excerpted from COGEH Volume 1.

Figure 5-1, taken from the SPE-PRMS *and modified to show the project maturity sub-classes defined in COGEH Volume 2, Section 2*, illustrates the main resources classification system *with the* additional operational subcategories (see *COGEH Volume 1*, Section 5.3.4 a *and COGEH Volume 2, Section 2.5.2*).

The vertical axis of Figure 5-1 represents the chance of commerciality. The key vertical categories relate to the quantities that are estimated to be remaining and recoverable; that is

- reserves, which are discovered and commercially recoverable;
- contingent resources, which are discovered and potentially recoverable but sub-commercial;
- prospective resources, which are undiscovered and potentially recoverable.

The range of uncertainty indicated on the horizontal axis of Figure 5-1 reflects that remaining recoverable quantities can only be estimated, not measured. Three uncertainty categories, or scenarios, are identified for estimates of recoverable resources — low estimate, best estimate, and high estimate (abbreviations for contingent resources are 1C, 2C, and 3C, respectively) — with the corresponding reserves categories of proved (1P), proved + probable (2P), and proved + probable + possible (3P).

Formal definitions for each element of Figure 5-1 are provided in *COGEH Volume 1*, Section 5.2, *as well as the supplementary glossary included in COGEH Volume 2, Section 2 (detailed in the following section)*.

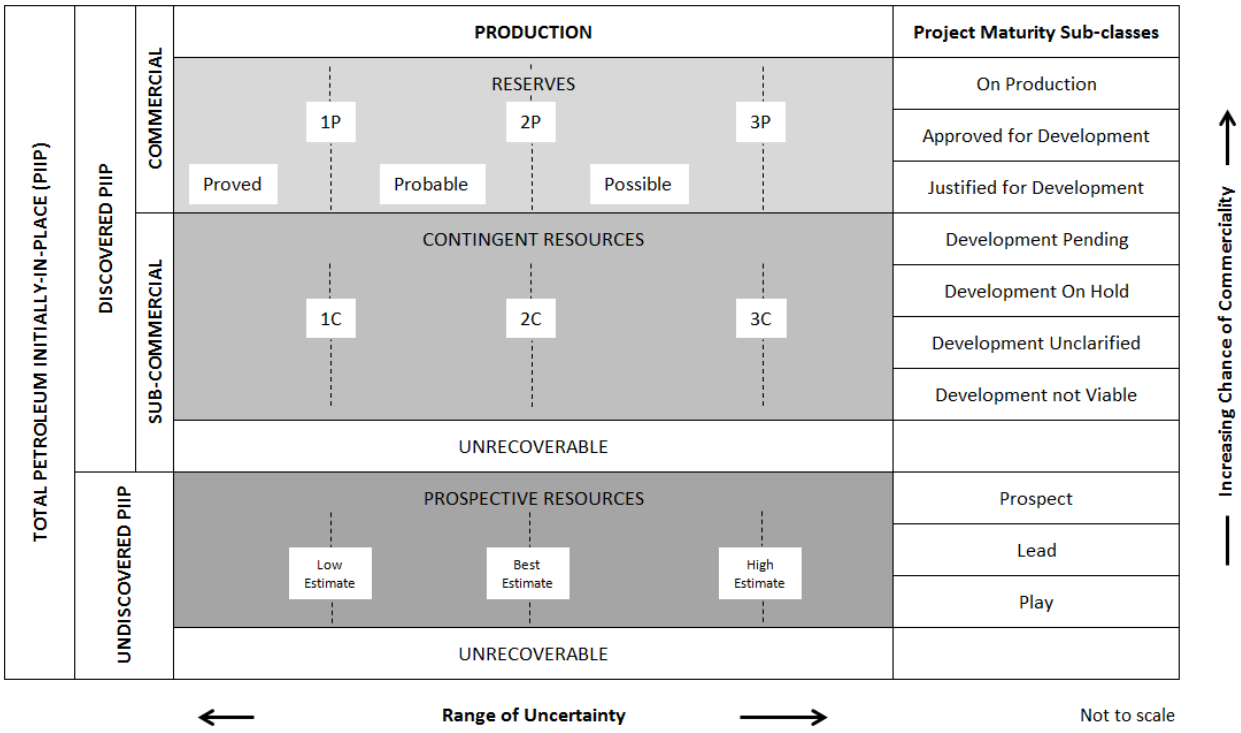


Figure 5-1 Resources classification framework (SPE-PRMS, Figure 1.1), *modified to show project maturity sub-classes defined in COGEH Volume 2*.

5.2 Definition of Resources

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, *or recoverable using experimental technology, and cannot be assigned as reserves or resources. 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.

Reserves, contingent resources, and prospective resources should not be combined without recognition of the significant differences in the criteria associated with their classification. However, in some instances (e.g., basin potential studies) it may be desirable to refer to certain subsets of the total PIIP. For such purposes the term “resources” should include clarifying adjectives “remaining” and “recoverable,” as appropriate. For example, the sum of reserves, contingent resources, and prospective resources may be referred to as “remaining recoverable resources.” However, contingent and prospective resources estimates involve additional risks, specifically the risk of not achieving commerciality and exploration risk, respectively, not applicable to reserves estimates. Therefore, when resources categories are combined, it is important that each component of the summation also be provided, and it should be made clear whether and how the components in the summation were adjusted for risk. (Vol. 1, Sec. 5, pp. 4-6)

Project maturity sub-classes are utilized to categorize the maturity of a project. Project maturity describes the stage of an exploration or development project and broadly corresponds to the chance of commerciality of the project. The boundaries between the maturity subclasses represent “decision gates” that reflect the actions (business decisions) required by the resource owner to move the project up the maturity “ladder” towards commercial production. (Vol. 2, Sec. 2, p. 58)

The following definitions relate to the project maturity sub-classes and have been excerpted from the supplementary glossary in COGEH Volume 2, Section 2.

Project maturity sub-classes for contingent resources […] *are* development unclarified, development pending, development on hold, and development not viable.

Development unclarified […] When the evaluation is incomplete and there is ongoing activity to resolve any risks or uncertainties.

Development pending […] Where resolution of the final conditions for development is being actively pursued (high chance of development).

Development on hold […] Where there is a reasonable chance of development, but there are major non-technical contingencies to be resolved that are usually beyond the control of the operator.

Development not viable […] Where no further data acquisition or evaluation is currently planned and hence there is low chance of development.

Project maturity sub-classes for prospective resources *are* prospect, lead, and play.

Prospect […] A potential accumulation with a play that is sufficiently well defined to represent a viable drilling target.

Lead […] A potential accumulation within a play that requires more data acquisition and/or evaluation in order to be classified as a prospect.

Play […] A family of geologically similar fields, discoveries, prospects, and leads. (Vol. 2, Sec. 2, pp. 102-103)

The following has been excerpted from COGEH, Volume 2.

i. Resource and Product Types

Although they are sometimes described using the same terminology, the difference between resource type and product type should be noted.

- **Resource type** describes the accumulation and is determined by the combination of the type of hydrocarbon and the rock in which it occurs.

- **Product type** is the hydrocarbon that is produced and sold. The same product type can be yielded by different resources types, particularly in the case of gas. Regulatory agencies, such as the *Canadian Securities Association* (CSA) or the *United States Securities and Exchange Commission* (SEC), may define in legislation the production types they require to be used for reporting. (Vol. 2, Sec. 2, pp. 13-14, 20-21)

The CSA has defined the following product types in National Instrument 51-101, as outlined in the notice of amendments published on December 4, 2014 and in effect as of July 1, 2015:

(a) ***bitumen*** […] means a naturally occurring solid or semi-solid *hydrocarbon*

(a) consisting mainly of heavier *hydrocarbons,* with a viscosity greater than 10,000 millipascal-seconds (mPa·s) or 10,000 centipoise (cP) measured at the *hydrocarbon's* original temperature in the *reservoir* and at atmospheric pressure on a gas-free basis, and

(b) that is not primarily recoverable at economic rates through a well without the implementation of enhanced recovery methods;

(b) ***coal bed methane*** […] means *natural gas* that

(a) primarily consists of methane, and

(b) is contained in a coal deposit;

(c) ***conventional natural gas*** […] means *natural gas* that has been generated elsewhere and has migrated as a result of hydrodynamic forces and is trapped in discrete *accumulations* by seals that may be formed by localized structural, depositional or erosional geological features;

(d) ***gas hydrates*** […] means a naturally occurring crystalline substance composed of water and *gas* in an ice-lattice structure;

(e) ***heavy crude oil*** […] means *crude oil* with a relative density greater than 10 degrees API gravity and less than or equal to 22.3 degrees API gravity;

(f) ***light crude oil*** **and** ***medium crude oil*** **combined;** […]

(a) *"light crude oil"* means *crude oil* with a relative density greater than 31.1 degrees API gravity;

(b) *"medium crude oil"* means *crude oil* with a relative density greater than 22.3 degrees API gravity and less than or equal to 31.1 degrees API gravity;

(g) ***natural gas liquids*** […] means those *hydrocarbon* components that can be recovered from *natural gas* as a liquid including, but not limited to, ethane, propane, butanes, pentanes plus, and condensates;

(h) ***shale gas*** […] means natural gas

(a) contained in dense organic-rich rocks, including low-permeability shales, siltstones and carbonates, in which the natural gas is primarily adsorbed on the kerogen or clay minerals, and

(b) that usually requires the use of hydraulic fracturing to achieve economic production rates;

(i) ***synthetic crude oil*** […] means a mixture of liquid *hydrocarbons* derived by upgrading *bitumen*, *kerogen* or other substances such as coal, or derived from *gas* to liquid conversion and may contain sulphur or other compounds;

(j) ***synthetic gas*** […] means a gaseous fluid

(a) generated as a result of the application of an in-situ transformation process to coal or other hydrocarbon-bearing rock; and

(b) comprised of not less than 10% by volume of methane;

(k) ***tight oil*** […] means *crude oil*

(a) contained in dense organic-rich rocks, including low-permeability shales, siltstones and carbonates, in which the crude oil is primarily contained in microscopic pore spaces that are poorly connected to one another, and

(b) that typically requires the use of hydraulic fracturing to achieve economic production rates.

(Source: CSA Notice of Amendments to National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* –and– Companion Policy 51-101 *Standards of Disclosure for Oil and Gas Activities*, December 4, 2014, Annex D, pp 34-38)

The following has been excerpted from COGEH, Volume 1.

5.3 Classification of Resources

For petroleum quantities associated with simple conventional reservoirs, the divisions between the resources categories defined in *COGEH Volume 1*, Section 5.2 *and in COGEH Volume 2, Section 2* may be quite clear, and in such instances the basic definitions alone may suffice for differentiation between categories. For example, the drilling and testing of a well in a simple structural accumulation may be sufficient to allow classification of the entire estimated recoverable quantity as contingent resources or reserves. However, as the industry trends toward the exploitation of more complex and costly petroleum sources, the divisions between resources categories are less distinct, and accumulations may have several categories of resources simultaneously. For example, in extensive "basin-center" low-permeability gas plays, the division between all categories of remaining recoverable quantities, i.e., reserves, contingent resources, and prospective resources, may be highly interpretive. Consequently, additional guidance is necessary to promote consistency in classifying resources. The following provides some clarification of the key criteria that delineate resources categories. Subsequent volumes of COGEH provide additional guidance.

5.3.1 Discovery Status

As shown in Figure 5-1, the total petroleum initially in place is first subdivided based on the discovery status of a petroleum accumulation. Discovered PIIP, production, reserves, and contingent resources are

associated with known accumulations. Recognition as a known accumulation requires that the accumulation be penetrated by a well […] that has demonstrated the existence of a significant quantity of potentially recoverable ***moveable*** petroleum. […] COGEH Volume 2, Sections ***2.2.2 g, 2.2.3***, 5.3 and 5.4, provides additional clarification regarding drilling and testing requirements ***and use of analogues*** relating to recognition of known accumulations. (Vol. 1, Sec. 5, pp 7-8; Vol. 2, Sec. 5, p. 25)

The following has been excerpted from COGEH Volume 1.

5.3.2 Commercial Status

Commercial status differentiates reserves from contingent resources. The following outlines the criteria that should be considered in determining commerciality:

- economic viability of the related development project;
- a reasonable expectation that there will be a market for the expected sales quantities of production required to justify development;
- evidence that the necessary production and transportation facilities are available or can be made available;
- evidence that legal, contractual, environmental, governmental, and other social and economic concerns will allow for the actual implementation of the recovery project being evaluated;
- a reasonable expectation that all required internal and external approvals will be forthcoming. Evidence of this may include items such as signed contracts, budget approvals, and approvals for expenditures, etc.;
- evidence to support a reasonable timetable for development. A reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a maximum time frame for classification of a project as commercial, a longer time frame could be applied where, for example, development of economic projects are deferred at the option of the producer for, among other things, market-related reasons or to meet contractual or strategic objectives.

COGEH Volume 2, Sections 5.5 to 5.8, provides ***additional*** details relating to the foregoing aspects of commerciality relating to classification as reserves versus contingent resources.

5.3.3 Commercial Risk *(Recovery Technology Status and Selection)*

In order to assign recoverable resources of any category, a development plan consisting of one or more projects needs to be defined. In-place quantities for which a feasible project cannot be defined using established technology or technology under development are classified as unrecoverable. *The project may or may not be defined using experimental technology; however, the in-place quantities are still classified as unrecoverable.* (Vol. 1, Sec. 5, pp. 8-9)

Technology under development (TUD) is a recovery process *or process improvement project* that has been determined to be technically viable via field test and is being further field tested to determine its economic viability in the subject reservoir. Contingent resources may be assigned if the projects provides information that is sufficient and of a quality to meet the requirements for this resource class. […] *Prospective resources may be assigned* only as an extension of contingent resources that have been assigned on the basis of that technology under development.

Experimental technology is a technology that is being field tested to determine the technical viability of applying a recovery process to unrecoverable discovered petroleum initially in place in a subject reservoir. It cannot be used to assign any class of recoverable resource (i.e., reserves, contingent resources, prospective resources). (Vol. 2, Sec. 2, pp. 44-45)

Once a recovery process has been selected, one or more recovery project scenarios must be developed for evaluation. […] Three levels of development of a project scenario *are defined in COGEH Volume 2*. (Vol. 2, Sec. 2, pp. 52; 54)

Conceptual (scoping) study […] The initial stage of the development of a project scenario, with limited detail and typically based on limited information.

Pre-development study […] An intermediate step in the development of a project evaluation scenario. The amount of information that is available for the reservoir of interest is greater than for a conceptual study […] *with* the remaining uncertainty *lying* largely in the recovery factor and economic viability. The level of economic analysis is sufficient to assess development options and overall project viability, but is insufficient for a final investment decision or for seeking outside major financing.

Development study […] The most detailed step in the development of a project evaluation scenario. It is based on detailed geological and engineering study and economic analysis of information on the specific project, and provides sufficient information for the creation of a development plan, from which a development decision can be made. (Vol. 2, Sec. 2, pp. 101-103)

The following has been excerpted from COGEH Volume 1.

In the early stage of exploration or development, project definition will not be of the detail expected in later stages of maturity. In most cases recovery efficiency will be largely based on analogous projects.

Estimates of recoverable quantities are stated in terms of the sales products derived from a development program, assuming commercial development. It must be recognized that reserves, contingent resources, and prospective resources involve different risks associated with achieving commerciality. The likelihood that a project will achieve commerciality is referred to as the "chance of commerciality." The chance of commerciality varies in different categories of recoverable resources as follows:

- **Reserves:** To be classified as reserves, estimated recoverable quantities must be associated with a project(s) that has demonstrated commercial viability. Under the fiscal conditions applied in the estimation of reserves, the chance of commerciality is effectively 100 percent.

- **Contingent Resources:** Not all technically feasible development plans will be commercial. The commercial viability of a development project is dependent on the forecast of fiscal conditions over the life of the project. For contingent resources the risk component relating to the likelihood that an accumulation will be commercially developed is referred to as the "chance of development." For contingent resources the chance of commerciality is equal to the chance of development.

- **Prospective Resources:** Not all exploration projects will result in discoveries. The chance that an exploration project will result in the discovery of petroleum is referred to as the "chance of discovery." Thus, for an undiscovered accumulation the chance of commerciality is the product of two risk components — the chance of discovery and the chance of development.

5.3.4 Economic Status, Development, and Production Subcategories

a. Economic Status

By definition, reserves are commercially (and hence economically) recoverable. A portion of contingent resources may also be associated with projects that are economically viable but have not yet satisfied all requirements of commerciality. […] Contingent resource estimates should have sufficient economic analysis to subclassify the resource as either economic or sub-economic. […] The appropriate level of economic evaluation will depend on the project status and maturity.

Economic Contingent Resources are those contingent resources that are currently economically recoverable.

Sub-Economic Contingent Resources are those contingent resources that are not currently economically recoverable. […] The designation of a contingent resource as sub-economic implies that economic factors are a contingency *as the resources remain uneconomic once the other contingencies have been addressed and therefore cannot be transferred to reserves*. (Vol. 1, Sec. 5, pp. 9-10; Vol. 2, Sec. 2, pp. 63-64)

Where evaluations are incomplete such that it is premature to identify the economic viability of a project, it is acceptable to note that project economic status is "undetermined" (i.e., "contingent resources – economic status undetermined"). (Vol. 1, Sec. 5, p. 10)

The classification of contingent resources – economic status undetermined may be maintained while information is being acquired. This could include activities such as the completion of testing for larger projects, further appraisal, and the economic and commercial assessment of the results, to at least the level of a conceptual study. It could also include a situation when an evaluation has been started but is still in progress. These activities should be carried out and completed within a reasonable timeframe for the project concerned, unless there is credible reason for a delay. Failure to assess economic viability within a reasonable timeframe without a meaningful explanation would usually indicate that the appropriate classification should be development not viable or, in some cases, discovered unrecoverable petroleum initially in place. (Vol. 2, Sec. 2, p. 65)

The following has been excerpted from COGEH Volume 1.

In examining economic viability, the same fiscal conditions should be applied as in the estimation of reserves, i.e., specified economic conditions, which are generally accepted as being reasonable (refer to COGEH Volume 2, Section 5.8).

b. Development and Production Status

Resources may be further subclassified based on development and production status. For reserves, the terms "developed" and "undeveloped" are used to express the status of development of associated recovery projects, and "producing" and "nonproducing" indicate whether or not reserves are actually on production (see *COGEH Volume 1*, Section 5.4.2).

Similarly, project maturity subcategories *(or sub-classes as defined in PRMS) are* identified for contingent and prospective resources *as outlined in COGEH Volume 2, Section 2. For contingent resources, project maturity sub-classes are defined by the status of the development of the accumulation. For prospective resources, project maturity sub-classes are defined by the chance of discovery for the accumulation. Definitions of the project maturity sub-classes are included in the supplementary glossary of COGEH Volume 2, Section 2*.

5.3.5 Uncertainty Categories

Estimates of resources always involve uncertainty, and the degree of uncertainty can vary widely between accumulations/projects and over the life of a project. Consequently, estimates of resources should generally be quoted as a range according to the level of confidence associated with the estimates. An understanding of statistical concepts and terminology is essential to understanding the confidence associated with resources definitions and categories. These concepts, which apply to all categories of resources, are outlined in *COGEH Volume 1*, Sections 5.5.1 to 5.5.3.

The range of uncertainty of estimated recoverable volumes may be represented by either deterministic scenarios or by a probability distribution. Resources should be provided as low, best, and high estimates as follows:

- 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 P90 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, P50/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 P10 confidence level. (Vol. 1, Sec. 5, p. 10-11)

The following definitions have been interpreted from COGEH Volume 1, Sections 7.5.3 and 7.8.2, and are included here for clarification purposes.

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

Company Net Contingent Resources are the gross contingent resources of the properties in which the Company 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.

Appendix B — Abbreviations, Units, Conversion Factors and Formation Names

Abbreviations

ARF	Alberta royalty framework (pre 2017)
AOF	absolute open flow
BOE	barrels of oil equivalent
bpd	barrels per day
bopd	barrels of oil per day
bwpd	barrels of water per day
Cr	Crown
DPIIP	discovered petroleum initially-in-place
DSU	drilling spacing unit
FH	Freehold
GCA	gas cost allowance
GOR	gas-oil ratio
GORR	gross overriding royalty
LPG	liquid petroleum gas
LRR	lease royalty rate
McfGE	thousands of cubic feet of gas equivalent
Mcfpd	thousands of cubic feet per day
MPR	maximum permissive rate
MRF	Alberta modernized royalty framework (post 2016)
MRL	maximum rate limitation
NC	‘new’ Crown
NCI	net carried interest
NGL	natural gas liquids
NORR	net overriding royalty
NPI	net profits interest
NRA	no reserves assigned
NRI	net revenue interest
NPV	net present value
OC	‘old’ Crown
ORRI	overriding royalty interest
P&NG	petroleum and natural gas
PSU	production spacing unit
PVT	pressure-volume-temperature
TPIIP	total petroleum initially-in-place
Unecon	uneconomic reserves evaluation case
UPIIP	undiscovered petroleum initially-in-place
WI	working interest

Imperial and Metric Units

Imperial Units			Metric Units	
M (10^3)	thousand	**Prefixes**	k (10^3)	kilo
MM (10^6)	million		M (10^6)	mega
B (10^9)	billion		G (10^9)	giga
T (10^{12})	trillion		T (10^{12})	tera
Q (10^{15})	quadrillion		P (10^{15})	peta
in.	inches	**Length**	cm	centimetres
ft	feet		m	metres
mi	miles		km	kilometres
ft^2	square feet	**Area**	m^2	square metres
ac	acres		ha	hectares
cf or ft^3	cubic feet	**Volume**	m^3	cubic metres
scf	standard cubic feet			
gal	gallons		L	litres
Mcf	thousand cubic feet			
MMcf	million cubic feet			
Bcf	billion cubic feet		e^6m^3	million cubic metres
bbl	barrels		m^3	cubic metres
Mbbl	thousand barrels		e^3m^3	thousand cubic metres
stb	stock tank barrels		stm^3	stock tank cubic metres
bbl/d	barrels per day	**Rate**	m^3/d	cubic metre per day
Mbbl/d	thousand barrels per day		e^3m^3/d	thousand cubic metres
Mcf/d	thousand cubic feet per day		e^3m^3/d	thousand cubic metres
MMcf/d	million cubic feet per day		e^6m^3/d	million cubic metres
Btu	British thermal units	**Energy**	J	joules
oz	ounces	**Mass**	g	grams
lb	pounds		kg	kilograms
ton	tons		t	tonnes
lt	long tons			
psi	pounds per square inch	**Pressure**	Pa	pascals
			kPa	kilopascals (10^3)
psia	pounds per square inch absolute			
psig	pounds per square inch gauge			
°F	degrees Fahrenheit	**Temperature**	°C	degrees Celsius
°R	degrees Rankine		K	degrees Kelvin
M$	thousand dollars	**Dollars**	k$	1 kilodollar

Imperial and Metric Units (Cont'd)

Imperial Units			Metric Units	
sec	second	**Time**	s	second
min	minute		min	minute
hr	hour		h	hour
d	day		d	day
wk	week			week
mo	month			month
yr	year		a	annum

Conversion Tables

Conversion Factors — Metric to Imperial		
cubic metres (m^3) (@ 15°C)	x 6.29010	= barrels (bbl) (@ 60°F), water
m^3 (@ 15°C)	x 6.3300	= bbl (@ 60°F), Ethane
m^3 (@ 15°C)	x 6.30001	= bbl (@ 60°F), Propane
m^3 (@ 15°C)	x 6.29683	= bbl (@ 60°F), Butanes
m^3 (@ 15°C)	x 6.29287	= bbl (@ 60°F), oil, Pentanes Plus
m^3 (@ 101.325 kPaa, 15°C)	x 0.0354937	= thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)
1,000 cubic metres (10^3m^3) (@ 101.325 kPaa, 15°C)	x 35.49373	= Mcf (@ 14.65 psia, 60°F)
hectares (ha)	x 2.4710541	= acres
1,000 square metres (10^3m^2)	x 0.2471054	= acres
10,000 cubic metres (ha·m)	x 8.107133	= acre feet (ac-ft)
$m^3/10^3m^3$ (@ 101.325 kPaa, 15° C)	x 0.0437809	= Mcf/Ac.ft. (@ 14.65 psia, 60°F)
joules (j)	x 0.000948213	= Btu
megajoules per cubic metre (MJ/m^3)	x 26.714952	= British thermal units per standard cubic foot (Btu/scf)
(@ 101.325 kPaa, 15°C)		(@ 14.65 psia, 60°F)
dollars per gigajoule ($/GJ)	x 1.054615	= $/Mcf (1,000 Btu gas)
metres (m)	x 3.28084	= feet (ft)
kilometres (km)	x 0.6213712	= miles (mi)
dollars per 1,000 cubic metres ($/10^3m^3$)	x 0.0288951	= dollars per thousand cubic feet ($/Mcf) (@ 15.025 psia) B.C.
($/10^3m^3$)	x 0.02817399	= $/Mcf (@ 14.65 psia) Alta.
dollars per cubic metre ($/m^3$)	x 0.158910	= dollars per barrel ($/bbl)
gas/oil ratio (GOR) (m^3/m^3)	x 5.640309	= GOR (scf/bbl)
kilowatts (kW)	x 1.341022	= horsepower
kilopascals (kPa)	x 0.145038	= psi
tonnes (t)	x 0.9842064	= long tons (LT)
kilograms (kg)	x 2.204624	= pounds (lb)
litres (L)	x 0.2199692	= gallons (Imperial)
litres (L)	x 0.264172	= gallons (U.S.)
cubic metres per million cubic metres ($m^3/10^6m^3$) (C_3)	x 0.177496	= barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia)
$m^3/10^6m^3$) (C_4)	x 0.1774069	= bbl/MMcf (@ 14.65 psia)
$m^3/10^6m^3$) (C_{5+})	x 0.1772953	= bbl/MMcf (@ 14.65 psia)
tonnes per million cubic metres ($t/10^6m^3$) (sulphur)	x 0.0277290	= LT/MMcf (@ 14.65 psia)
millilitres per cubic meter (mL/m^3) (C_{5+})	x 0.0061974	= gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf)
(mL/m^3) (C_{5+})	x 0.0074428	= gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf)
Kelvin (K)	x 1.8	= degrees Rankine (°R)
millipascal seconds (mPa·s)	x 1.0	= centipoise
density (kg/m3), ρ	ρ÷1000x141.5-131.5	= °API

Conversion Tables (Cont'd)

Conversion Factors — Imperial to Metric		
barrels (bbl) (@ 60°F)	x 0.15898	= cubic metres (m^3) (@ 15°C), water
bbl (@ 60°F)	x 0.15798	= m^3 (@ 15°C), Ethane
bbl (@ 60°F)	x 0.15873	= m^3 (@ 15°C), Propane
bbl (@ 60°F)	x 0.15881	= m^3 (@ 15°C), Butanes
bbl (@ 60°F)	x 0.15891	= m^3 (@ 15°C), oil, Pentanes Plus
thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)	x 28.17399	= m^3 (@ 101.325 kPaa, 15°C)
Mcf (@ 14.65 psia, 60°F)	x 0.02817399	= 1,000 cubic metres (10^3m^3) (@ 101.325 kPaa, 15°C)
acres	x 0.4046856	= hectares (ha)
acres	x 4.046856	= 1,000 square metres (10^3m^2)
acre feet (ac-ft)	x 0.123348	= 10,000 cubic metres (10^4m^3) (ha·m)
Mcf/ac-ft (@ 14.65 psia, 60°F)	x 22.841028	= $10^3m^3/m^3$ (@ 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/m^3)
(@ 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	= $/$10^3m^3$ (@ 101.325 kPaa, 15°C)
$/Mcf (@ 15.025 psia, 60°F), B.C.	x 34.607860	= $/$10^3m^3$ (@ 101.325 kPaa, 15°C)
feet (ft)	x 0.3048	= metres (m)
miles (mi)	x 1.609344	= kilometres (km)
dollars per barrel ($/bbl)	x 6.29287	= dollars per cubic metre ($/$m^3$)
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 m^3)
gallons (U.S.)	x 3.785412	= litres (L) (.001 m^3)
barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia) (C_3)	x 5.6339198	= cubic metres per million cubic metres ($m^3/10^6m^3$)
bbl/MMcf (C_4)	x 5.6367593	= ($m^3/10^6m^3$)
bbl/MMcf (C_{5+})	x 5.6403087	= ($m^3/10^6m^3$)
LT/MMcf (sulphur)	x 36.063298	= tonnes per million cubic metres ($t/10^6m^3$)
gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf) (C_{5+})	x 161.3577	= millilitres per cubic meter (mL/m^3)
gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf) (C_{5+})	x 134.3584	= (mL/m^3)
degrees Rankine (°R)	x 0.555556	= Kelvin (K)
centipoises	x 1.0	= millipascal seconds (mPa·s)
°API	(°APIx131.5)x 1000/141.5	= density (kg/m3)

SPROULE STANDARD FORMATION NAME ABBREVIATIONS - CANADA

ABB.	FORMATION NAME	ABB.	FORMATION NAME	ABB.	FORMATION NAME	ABB.	FORMATION NAME
ABGP	ALBERTA GROUP	EARL	EARLIE	LKRV	LOWER KEG RIVER	RVCG	RAVENSCRAG
ALID	ALIDA	EDMN	EDMONTON	LLTN	LYLETON	SBRS	SUNBURST
ALXO	ALEXO	EKPP	ELK POINT GROUP	LMNV	LOWER MANNVILLE	SBWI	SECOND BOW ISLAND SS
AMRN	AMARANTH	ELDN	ELDON	LPIN	LEPINE	SCLD	SCOLLARD
ARCM	ARCTOMYS	ELKK	ELK	LPRK	LEA PARK	SCLN	SCALLION
ARCS	ARCS	ELKT	ELKTON	LRSV	LOWER SHAUNAVON	SCTR	SCATTER
ASRN	ASHERN	ELRL	ELLERSLIE	LVGS	LIVINGSTONE	SFBR	SHAFTESBURY
ASVL	ASHVILLE	ERLK	ERNESTINA LAKE	LWAT	LOWER WATROUS	SFCR	SWIFT CURRENT
BARO	BARONS SAND	ERNG	ETHERINGTON	LWGR	LOWER GRAND RAPIDS	SHND	SHUNDA
BCDS	BASAL COLORADO SS.	ESND	EASTEND	MASE	MASEFIELD	SKGP	SASKATCHEWAN GROUP
BCHO	BISTCHO	EXSW	EXSHAW	MBGP	MANITOBA GROUP	SKNN	SIKANNI
BCKG	BUCKINGHORSE	FCLZ	FISH SCALE ZONE	MBRL	MOBERLY	SLLN	SULLIVAN
BCLK	BIRCH LAKE	FLHR	FALHER	MCLN	MCLAREN	SLPM	SULPHUR MOUNTAIN
BCMB	BASAL SAND (CAMBRIAN)	FLUM	FLUME	MCMR	MCMURRAY	SLPP	SULPHUR POINT
BCRK	BLACK CREEK	FNGN	FINNEGAN	MCNL	MCCONNELL	SLVP	SLAVE POINT
BDBD	BASAL RED BEDS	FNSQ	FANTASQUE	MDCN	MEDICINE HAT	SMGP	SMOKY GROUP
BDBR	BIRDBEAR	FRBG	FIREBAG	MDGP	MADISON GROUP	SMRR	ST. MARY RIVER
BDLK	BOUNDARY LAKE	FRBR	FROBISHER	MDLK	MEADOW LAKE	SNMN	STONY MOUNTAIN
BDRT	BADHEART	FRCM	FRENCHMAN	MIDL	MIDALE	SNVN	SHAUNAVON
BGRY	BIGORAY MEMBER	FRLM	FAIRHOLME	MILK	MIDDLE INTERLAKE	SPNL	SPINNEY HILL
BGVL	BIG VALLEY	FRMS	FOREMOST	MJLK	MAJEAU LAKE	SPRF	SPEARFISH
BHLL	BEAVERHILL LAKE	FRNG	FERNIE GROUP	MLDD	MILDRED	SPRK	SPARKY
BKKN	BAKKEN	FSMP	FORT SIMPSON	MLKR	MILK RIVER	SPRR	SPRAY RIVER
BLCK	BLACKSTONE	FTJN	FORT ST. JOHN GROUP	MLTN	MOULTON	SPRV	SPIRIT RIVER
BLDN	BALDONNEL	FVEL	FAVEL	MMTN	MIST MOUNTAIN	SRSR	SOURIS RIVER
BLDV	BLOOD RESERVE	FVLM	FORT VERMILION	MNCH	MUNCHO	SSPK	SECOND WHITE SPECKS
BLLY	BELLOY	FWSS	FIRST WHITE SPECKS	MNTE	MONTEITH	SSSH	SASSENACH
BLQZ	BASAL QUARTZ	GBJC	GREY BEDS (JURASSIC)	MNTN	MONTNEY	STLR	STETTLER
BLRG	BLUE RIDGE MEMBER	GDPD	GRAND RAPIDS	MNVL	MANNVILLE	STNL	STONEWALL
BLRV	BELLY RIVER	GDRC	GOODRICH	MORR	MORRO	STON	STONE
BLSK	BLUESKY	GLCC	GLAUCONITIC SS.	MPRK	MOUNTAIN PARK	STPN	STEPHEN
BNFF	BANFF	GLPM	GENERAL PETROLEUM	MRDN	MORDEN	STSK	SOUTHESK
BOYN	BOYNE	GLWD	GILWOOD	MSBR	MOOSEBAR	STTH	SAWTOOTH
BRPW	BEARPAW	GMBL	GRUMBLER	MSKG	MUSKEG	SUCC	SUCCESS
BRSS	BROSSEAU	GNTN	GUNTON	MSKK	MUSKIKI	SULY	SULLY
BRVR	BESA RIVER	GOGG	GOG	MSKW	MUSKWA	SWFT	SWIFT
BRWD	BROWN SAND	GOLT	GOLATA	MSNC	MISSION CANYON	SWNH	SWAN HILLS
BRZU	BRAZEAU	GPPG	GYPSUM SPRINGS	MSTY	MISTY	SWNR	SWAN RIVER
BSLD	BOW ISLAND	GRBD	GREEN BEDS	MTHK	MT. HAWK	TBER	TABER
BSUT	BLACK SHALE UNIT	GRBT	GARBUTT	MTSN	MATTSON	TFLS	TWIN FALLS
BSVN	BOISSEVAIN	GRLG	GRAYLING	MTYT	MT. WHYTE	TLFL	TAYLOR FLAT
BTPK	BEATTIE PEAKS	GRMN	GRAMINIA	MWBL	MOWITCH-BELCOURT	TLSN	TILSTON
BTTL	BATTLE	GRNW	GRANITE WASH	NCSL	NEWCASTLE	TNLM	TUNNEL MOUNTAIN
BVRF	BEAVERFOOT	GRSM	GROSMONT	NKNS	NIKANASSIN	TOAD	TOAD
CARN	CAIRN	GRTT	GROTTO	NNDA	NONDA	TQQY	TORQUAY
CCPD	CONTACT RAPIDS	GTES	GATES	NRDG	NORDEGG	TRFK	THREE FORKS
CDMN	CADOMIN	GTNG	GETHING	NSKU	NISKU	TRLM	TURTLE MOUNTAIN
CDRL	CATHEDRAL	GVBG	GRAVELBOURG	NTKN	NOTIKEWIN	TRRV	TROUT RIVER
CDTT	CADOTTE	HGHD	HIGHWOOD	OCDZ	OSTRACOD ZONE	TRVL	TURNER VALLEY
CHNK	CHINOOK	HLFY	HALFWAY	OLDM	OLDMAN	TTCH	TETCHO
CKGK	COOKING LAKE	HNDO	HONDO	PCCP	POUCE COUPE	TTLN	TATHLINA
CLDK	COLD LAKE	HNSN	HANSON	PCGP	PEACE RIVER GROUP	UBMG	UPPER BLAIRMORE
CLLK	CHARLIE LAKE	HOME	HOME	PCPL	PORCUPINE HILLS	UILK	UPPER INTERLAKE
CLMR	CALMAR	HRLD	HERALD	PDDY	PADDY	UKRV	UPPER KEG RIVER
CLMT	CALMUT	HRMN	HARMON	PECH	PEECHEE	UMNV	UPPER MANNVILLE
CLNY	COLONY	HRRV	HORN RIVER	PGBD	PASSAGE BEDS	UPGR	UPPER GRAND RAPIDS
CLRD	COLORADO	HRVR	HAY RIVER	PIKA	PIKA	USHV	UPPER SHAUNAVON
CLSP	COALSPUR SCOLLARD	HSCN	HORSESHOE CANYON	PIPR	PIPER	UTRV	UPPER TURNER VALLEY
CLWS	CLEARWATER SHALE	HSLR	HASLER	PKCP	POKER CHIP SHALE	VCTR	VICTORIA
CMGS	CUMMINGS	IRTN	IRETON	PKKU	PUSKWASKAU	VGRD	VANGUARD
CMRS	CAMROSE	ISBL	ISHBEI	PKSK	PEKISKO	VKNS	VIKING SAND
CNCG	CHINCHAGA	JDTH	JUDITH RIVER	PKWK	PAKOWKI	VMLR	VERMILION RIVER
CNGO	CHUNGO	JLFU	JOLI FOU	PLCN	PELICAN	VRDN	VIRDEN
CNTH	CYNTHIA MEMBER	JNMR	JEAN MARIE	PLSR	PALLISER	WATT	WATT MOUNTAIN
CNTR	CANTUAR	JPGP	JUMPING POUND	PMBN	PEMBINA	WBMN	WABAMUN
CPSL	CYPRESS HILLS	KEGR	KEG RIVER	PNPT	PINE POINT	WBSK	WABISKAW
CRDM	CARDIUM	KKIS	KAKISA	PPHT	PROPHET	WDMN	WOOD MOUNTAIN
CRFT	CROWFOOT	KNDL	KINDLE	PPLR	POPLAR	WFWL	WATERFOWL
CRLS	CHARLES	KSBY	KISBEY	PRDN	PARDONET	WGTE	WESTGATE
CRSN	CHRISTINA	KSKN	KISKATINAW	PRDX	PERDRIX	WHRS	WHITEHORSE
CRSR	CRUISER	KSKP	KASKAPAU	PRQL	PRESQU'ILE	WKPH	WOKKPASH
CRWS	CROWSNEST	KSKS	KANANASKIS	PRVP	PRAIRIE EVAPORITE	WLCK	WILLOW CREEK
CSFD	CROSSFIELD	KTCH	KOTCHO	PSKP	PASKAPOO	WLRC	WILRICH
CSGN	COSTIGAN	KTNL	KOTANEELEE	RCKK	ROCK CREEK	WNPG	WINNIPEG
CTBK	CUT BANK	KTNY	KOOTENAY	RCLF	RATCLIFFE	WOLF	WOLF LAKE MEMBER
DBLT	DEBOLT	LABI	LA BICHE	RDBV	RED BEDS (DEVONIAN)	WPGP	WAPITI GROUP
DCRK	DOE CREEK	LAMR	LOWER AMARANTH	RDGM	RIDING MOUNTAIN	WPGS	WINNIPEGOSIS
DDWD	DEADWOOD	LBMG	LOWER BLAIRMORE	RDKF	REDKNIFE	WPIB	WAPIABI
DINA	DINA	LBRG	LOTSBERG	RDRV	RED RIVER	WRBR	WINTERBURN
DNVG	DUNVEGAN	LBSK	LOBSTICK MEMBER	REXX	REX	WRLK	WHITEWATER LAKE
DOIG	DOIG	LCLD	LOWER COLORADO	RLDG	ROUTLEDGE	WSEC	WASECA
DPRW	DUPEROW	LDGP	LODGEPOLE	RNBW	RAINBOW	WTMD	WHITEMUD
DSBY	DAWSON BAY	LDMR	LLOYDMINSTER	RNDL	RUNDLE GROUP	WTRS	WATROUS
DTSS	DETRITAL SANDSTONE	LDUC	LEDUC	RRDN	RIERDON	WTRW	WATERWAYS
DUDN	DUNEDIN	LILK	LOWER INTERLAKE	RSRY	ROSERAY	YOMN	YEOMAN
DVRN	DUVERNAY	LIRD	LIARD	RSTN	RESTON	ZAMA	ZAMA

Appendix C – Master Services Consulting Agreement

Refer to the report titled “Evaluation of the Contingent and Prospective Resources of Petrolia Inc. in the Bourque Area of Quebec, Canada (As of September 30, 2017) – Detailed Report”, signed November 15, 2017 for the Master Services Consulting Agreement.

Appendix D – Representation Letter

The Representation Letter has been included as Appendix D; it was prepared by Officers of the Company and confirms the accuracy, completeness and availability of all data requested by Sproule and or otherwise furnished to Sproule during the course of our evaluation of the Company's assets, herein reported on.

PIERIDAE ENERGY

November 10, 2017

Sproule Associates Limited
900, 140 – 4th Avenue SW
Calgary, AB T2P 3N3

Dear Sir:

Regarding the evaluation of our Company's oil and gas resources of the Bourque property (the "Bourque Resources Evaluation") for the period ended September 30, 2017 (the "Effective Date"), we herein confirm, to the best of our knowledge and belief after due inquiry, as of the Effective Date and, as applicable, as of today, the following representations and information made available to you during the conduct of the Bourque Resources Evaluation:

1. We (the Client) have made available to you (the Evaluator) certain records, information, and data relating to the evaluated properties that we confirm is, with the exception of immaterial items, complete and accurate as of the Effective Date of the Reserves Evaluation, including, where applicable, the following:

    - accounting, financial, tax, and contractual data;
    - asset ownership and related encumbrance information;
    - details concerning product marketing, transportation, and processing arrangements;
    - all technical information including geological, engineering, and production and test data;
    - estimates of future abandonment and reclamation costs, excluding adjustments for salvage, for developed and undeveloped wells and material dedicated facilities, both existing and planned.

2. We confirm that all financial and accounting information provided to you is, both on an individual entity basis and in total, entirely consistent with that reported by our Company for public disclosure and audit purposes.

3. We confirm that our Company has satisfactory title to all of the assets, whether tangible, intangible, or otherwise, for which accurate and current ownership information has been provided.

4. With respect to all information provided to you regarding product marketing, transportation, and processing arrangements, we confirm that we have disclosed to you all anticipated changes, terminations, and additions to these arrangements that could reasonably be expected to have a material effect on the evaluation of our Company's reserves and future net revenues.

5. With the possible exception of items of an immaterial nature, we confirm the following as of the Effective Date:

- For all operated properties that you have evaluated, no changes have occurred or are reasonably expected to occur to the operating conditions or methods that have been used by our Company over the past twelve (12) months, except as disclosed to you. In the case of non-operated properties, we have advised you of any such changes of which we have been made aware.
- All regulatory approvals, permits, and licenses required to allow continuity of future operations and production from the evaluated properties are in place and, except as disclosed to you, there are no directives, orders, penalties, or regulatory rulings in effect or expected to come into effect relating to the evaluated properties.
- Except as disclosed to you, the producing trend and status of each evaluated well or entity in effect throughout the three-month period preceding the Effective Date are consistent with those that existed for the same well or entity immediately prior to this three-month period.
- Except as disclosed to you, we have no plans or intentions related to the ownership, development, or operation of the evaluated properties that could reasonably be expected to materially affect the production levels or recovery of resources from the evaluated properties.
- If material changes of an adverse nature occur in the Company's operating performance subsequent to the Effective Date and prior to the report date, we will inform you of such material changes prior to requesting your approval for any public disclosure of any resources information.

Between the Effective Date and the date of this letter nothing has come to our attention that has materially affected or could materially affect our resources that has not been disclosed to you.

Yours very truly,

_Pieridae Energy Limited_____
COMPANY

SIGNATURE

_Mabrouk Ouederni_____
NAME

_Operations Manager_____
TITLE