



**ORCA EXPLORATION GROUP INC.**

**Annual Information Form**

**FOR THE YEAR ENDED DECEMBER 31, 2016**

May 9, 2017

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## DEFINITIONS

The following terms, used in the preparation of this Annual Information Form, have the following meanings:

"**Additional Gas**" is all of the natural gas in the Songo Songo field that is in excess of the Protected Gas.

"**Board**" means the Board of Directors of the Company.

"**CDN**" means Canadian.

"**Class A Shares**" means the Class A common voting shares in the capital of Orca.

"**Class B Subordinate Voting Shares**" means the Class B subordinate voting shares in the capital of Orca.

"**COGE Handbook**" means the Canadian Oil and Gas Evaluation Handbook maintained by the Society of Petroleum Evaluation Engineers (Calgary Chapter), as amended from time to time.

"**Development Programme**" means Orca's development work for the full field development of the Songo Songo field.

"**EWURA**" means the Energy & Water Utilities Regulatory Authority of Tanzania.

"**GAAP**" means generally accepted accounting principles.

"**Gross**" means, in relation to Orca's interest in production or Reserves, working interest (operating or non-operating) share (after estimating the effect of the TPDC back in) before deduction of and without including any royalty interest owned.

"**IFC**" means the International Finance Corporation.

"**McDaniel**" means McDaniel & Associates Consultants Ltd., the independent reserves evaluator appointed by the Board.

"**McDaniel Report**" means the report prepared by McDaniel evaluating the natural gas and natural gas liquids of Orca's oil and gas properties, with an effective date of December 31, 2016 and a preparation date of March 14, 2017.

"**MEM**" means the Ministry of Energy and Minerals for Tanzania.

"**NI 51-101**" means National Instrument 51-101 - *Standards Of Disclosure For Oil and Gas Activities*.

"**natural gas**" means the lighter hydrocarbons and associated non-hydrocarbon substances occurring naturally in an underground reservoir, which under atmospheric conditions are essentially gases but which may contain natural gas liquids. Natural gas can exist in a reservoir either dissolved in crude oil (solution gas) or in a gaseous phase (associated gas or non-associated gas). Non-hydrocarbon substances may include hydrogen sulphide, carbon dioxide and nitrogen.

"**natural gas liquids**" or "**NGLs**" means those hydrocarbon components that can be recovered from natural gas as liquids including, but not limited to, ethane, propane, butanes, pentanes plus, condensate and small quantities of non-hydrocarbons.

"**Net**" means, in relation to Orca's interest in production or reserves, the economic allocation of the Gross reserves to the Company as determined in accordance with the Production Sharing Agreement.

"**NNGIP**" means the National Natural Gas Infrastructure Project.

"Orca" or the "Company" or the "Corporation" means Orca Exploration Group Inc. and its subsidiaries.

"production" means recovering, gathering, treating, field or plant processing (for example, processing gas to extract natural gas liquids) and field storage of oil and gas.

"Production Sharing Agreement" or "PSA" means an agreement signed with national parastatals that determine the terms of the hydrocarbon investment and economic allocation of proceeds.

"property" includes:

- (a) fee ownership or a lease, concession, agreement, permit, licence or other interest representing the right to extract oil or gas subject to such terms as may be imposed by the conveyance of that interest;
- (b) royalty interests, production payments payable in oil or gas, and other non-operating interests in properties operated by others; and
- (c) an agreement with a foreign government or authority under which a reporting issuer participates in the operation of properties or otherwise serves as "producer" of the underlying reserves (in contrast to being an independent purchaser, broker, dealer or importer).

A property does not include supply agreements, or contracts that represent a right to purchase, rather than extract, oil or gas.

"Protected Gas" is the natural gas in the Songo Songo licence acreage that is owned by TPDC and is sold under a 20-year gas agreement to Songas Limited. Songas utilizes the Protected Gas (maximum 45.1 MMcfd) as feedstock for its gas turbine electricity generators at Ubungo, for onward sale to the Wazo Hill cement plant and for electrification of some villages along the pipeline route.

"Proved Reserves" are those Reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated Proved Reserves. At least a 90% probability that the quantities actually recovered will equal or exceed the estimated Proved Reserves is the targeted level of certainty.

"Probable Reserves" are those additional Reserves that are less certain to be recovered than Proved Reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated Proved plus Probable Reserves. At least a 50% probability that the quantities actually recovered will equal or exceed the sum of the estimated Proved plus Probable Reserves is the targeted level of certainty.

"Reserves" are the 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: analysis of drilling, geological, geophysical and engineering data; the use of established technology; and specified economic conditions, which are generally accepted as being reasonable and shall be disclosed. Reserves are classified according to the degree of certainty associated with the estimates.

"Songas" means Songas Limited the owner of the Ubungo power plant and the infrastructure that processes the Protected and Additional Gas and transports it to Dar es Salaam.

"Tanzania" means the United Republic of Tanzania.

"TPDC" means Tanzania Petroleum Development Corporation.

"TANESCO" means Tanzania Electric Supply Company Limited.

"TSXV" means the TSX Venture Exchange.

## ABBREVIATIONS

<b>Crude Oil and Natural Gas Liquids</b>		<b>Natural Gas</b>	
Bbl	barrel	Mcf	thousand standard cubic feet
Boe	barrels of oil equivalent	MMcf	million standard cubic feet
Mboe	thousand barrels of oil equivalent		
Mbbls	thousand barrels	Mcf/d	thousand standard cubic feet per day
Bbls/d	barrels per day	MMcfd	million cubic feet per day
Boe/d	barrels of oil equivalent per day	MMscfd	million standard cubic feet per day
NGLs	natural gas liquids	MMbtu	million British Thermal Units
		Bcf	billion standard cubic feet

### **Other**

BOE	barrel of oil equivalent on the basis of 1 Bbl to 6 Mcf of natural gas; BOE may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf to 1 Bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given the value ratio based on the current price of oil as compared to natural gas is significantly different from the energy equivalency of 6 Mcf to 1 Bbl, utilizing such conversion ratio may be misleading as an indication of value.
m <sup>3</sup>	cubic metres
M	thousand

## CONVERSIONS

The following table sets forth certain standard conversions from Standard Imperial units to the International System of Units (or metric units).

<b>To Convert From</b>	<b>To</b>	<b>Multiply By</b>
Mcf	m <sup>3</sup>	28.174
thousand cubic metres	Mcf	35.494
Bbls	cubic metres	0.159
cubic metres	Bbls	6.290
feet	metres	0.305
metres	feet	3.281
miles	kilometres	1.609
kilometres	miles	0.621
acres	hectares	0.405
hectares	acres	2.471

## CONVENTIONS

Words importing the singular number only include the plural, and vice versa, and words importing any gender include all genders.

In this Annual Information Form ("**AIF**"), unless otherwise specified or the context otherwise requires, all dollar amounts are expressed in United States dollars and references to "dollars", "\$" or "US\$" are to United States dollars, references to "CDN\$" are to Canadian dollars and references to "TZS" are to Tanzanian shillings.

Certain other terms used herein but not defined herein are defined in NI 51-101 and, unless the context otherwise requires, shall have the same meanings herein as in NI 51-101.

## FORWARD LOOKING INFORMATION

Certain statements included in this AIF and in the documents incorporated by reference in this AIF may constitute forward-looking statements under applicable securities legislation. Forward-looking statements or information typically contain statements with words such as "anticipate", "believe", "expect", "plan", "intend", "estimate", "propose", "will", "should", "could", "potential", "continue" or similar words suggesting future outcomes or statements regarding an outlook. These statements are only predictions and are based on assumptions and analyses made by the Company derived from experience and perceptions. Actual events or results may differ materially. Undue reliance should not be placed on these forward-looking statements, as there can be no assurance that the plans, intentions or expectations upon which they are based will occur. By its nature, forward-looking information involves numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will not occur.

Forward looking statements or information in this Annual Information Form and in the documents incorporated by reference in this Annual Information Form may include but are not limited to statements regarding:

- the business strategy and objectives of Orca Exploration Group Inc. ("**Orca**" or the "**Company**" or the "**Corporation**");
- reserve quantities and the discounted present value of future net cash flows from such reserves;
- net revenue, future production levels, exploration plans, development plans, capacity quantities, supply, acquisition and disposition plans and the timing thereof;
- receipt of payments from TANESCO and Songas;
- drilling inventory, drilling plans and timing of drilling, completion and tie-in of Songo Songo wells;
- productive capacity of wells, anticipated or expected production rates and anticipated dates of commencement of production;
- results of various projects of the Company;
- ability to lower cost structure in certain projects of the Company;
- growth expectations within the Company;
- timing of development of undeveloped reserves;
- the tax horizon and taxability of the Company;
- the implications of the terms of Production Sharing Agreements;
- the performance and characteristics of the Company's oil and natural gas properties;
- the Company's acquisition strategy, the criteria to be considered in connection therewith and the benefits to be derived therefrom;
- the impact of governmental and regulatory regulation on the Company, including but not limited to terms of the Government of Tanzania's Natural Gas Policy;
- realization of the anticipated benefits of acquisitions and dispositions;

- weighting of production between different commodities, and the weighting of gas sales between Industrial and Power sector customers in Tanzania;
- expected levels of royalty rates, operating costs, general administrative costs, costs of services and other costs and expenses;
- the Company's capital expenditure program and the timing and method of financing thereof;
- treatment under government regulation and taxation regimes, including but not limited to the outcome of withholding tax matters currently under dispute;
- the ability to obtain equipment, services and supplies in a timely manner to carry out its activities;
- the ability to market oil and natural gas successfully to current and new customers, including the potential to expand the current customer base by connecting to the recently completed major natural gas infrastructure facilities;
- the Company's expectations regarding demand for natural gas in Tanzania;
- the timing and costs of pipeline, terminal and storage facility construction and expansion and the ability to secure adequate product transportation;
- the timely receipt of required partner and regulatory approvals;
- currency, exchange and interest rates; and
- future oil and gas prices.

In addition, please note that statements relating to "reserves" or "resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions, that the resources and reserves described can be profitably produced in the future.

Such forward-looking statements or information are based on a number of assumptions, which may prove to be incorrect. In addition to any other assumptions identified in this AIF and in the documents incorporated by reference in this AIF, assumptions have been made regarding, among other things:

- the ability to obtain equipment, services and supplies in a timely manner to carry out its activities;
- the ability to market oil and natural gas successfully to current and new customers;
- the timely receipt of payments from natural gas sales customers, including but not limited to TANESCO;
- the timing and costs of pipeline, terminal and storage facility construction and expansion and the ability to secure adequate product transportation, including but not limited to expected timing for connecting to the recently completed major natural gas infrastructure facilities;
- the timely receipt of required partner and regulatory approvals;
- the interpretation of terms in Production Sharing Agreements, including potential changes in terms as a result of the conclusion of matters relating to the new Petroleum Act and grandfathering provisions;
- the ability to secure the necessary regulatory and contractual approvals related to the execution of its business plan;

- the ability to continue work according to the terms of the unsigned Amended and Restated Gas Agreement;
- infrastructure capacity;
- availability of skilled labour;
- currency, exchange and interest rates;
- current and expected future oil and gas prices;
- the impact of increasing competition;
- conditions in general economic and financial markets;
- availability of drilling and related equipment;
- availability of skilled labour within Tanzania and globally;
- cash flow;
- timing and amount of capital expenditures;
- royalty rates;
- effects of regulation by governmental agencies; and
- future operating and general & administrative costs.

Although Orca believes that the expectations reflected in such forward-looking statements or information are reasonable, undue reliance should not be placed on forward looking information because Orca cannot give assurance that such expectations will prove to be correct. The Company cannot guarantee future results, levels of activity, performance, or achievements. Moreover, the Company does not assume responsibility for the outcome of the forward-looking information. Forward-looking statements or information are based on current expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by Orca and described in the forward-looking statements or information. These risks and uncertainties include but are not limited to:

- the ability of management to execute its business plan;
- the risks of the oil and gas industry both domestically and internationally, such as operational risks in exploring for, developing and producing natural gas, including well productivity and wellbore integrity, facilities and pipelines integrity;
- risks and uncertainties involving geology of oil and gas deposits;
- the market for natural gas in Tanzania and risks inherent in marketing operations, including but not limited to credit risk of TANESCO or other major customers;
- the uncertainty of reserves estimates and reserves life;
- the uncertainty of estimates and projections relating to production, costs and expenses;
- potential delays or changes in plans with respect to exploration or development projects or capital expenditures;

- the ability to enter into or renew leases;
- fluctuations in oil and gas prices, foreign currency exchange rates and interest rates;
- failure to realize anticipated benefits of acquisitions;
- negotiations with foreign governments and regulatory bodies;
- the possibility that drilling rigs fail to fulfill the terms of drilling contracts;
- the ability to achieve full production values and infrastructure restraints;
- additional taxes or penalties;
- stock market volatility and market valuations;
- health, safety and environmental risks;
- uncertainties as to the availability and cost of financing;
- the ability to add production and reserves through development and exploration activities;
- general economic and business conditions;
- the possibility that government policies or laws, including but not limited to the Tanzania Natural Gas Policy, may change or governmental approvals may be delayed or withheld;
- the possibility that there will be government intervention that alters the economic terms of the investment;
- regulatory investment that impacts on infrastructure development or gas pricing;
- uncertainty in amounts and timing of royalty payments;
- risks associated with any existing and/or potential future lawsuits and regulatory actions; and
- other risks and uncertainties described elsewhere in this AIF or in Orca's other filings with Canadian securities authorities.

Management has included the above summary of assumptions and risks related to forward-looking information provided in this AIF in order to provide shareholders with a more complete perspective on the Company's future operations. Readers are cautioned that this information may not be appropriate for other purposes.

These forward-looking statements are made as of the date of this AIF and the respective dates of the documents incorporated by reference in this AIF, as applicable, the Company disclaims any intent or obligation to update publicly any forward-looking information, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

#### **NON-GAAP MEASURES**

The Company evaluates its performance using non-GAAP (Generally Accepted Accounting Principles) measures. These measures are not standardized and therefore may not be comparable to similar measurements of other entities.

- Cash flow from operations represents net cash flow from operating activities less interest paid and before changes in non-cash working capital. This is a new key performance measure that management believes

represents the Company's ability to generate sufficient cash flow to fund capital expenditures and repay debt.

- Operating netbacks represent the profit margin associated with the production and sale of Additional Gas and is calculated as revenues less processing and transportation tariffs, government parastatal's revenue share, operating and distribution costs for one thousand standard cubic feet of Additional Gas. This is a key measure as it demonstrates the profit generated from each unit of production.

For more information, see the management's discussion and analysis of the financial conditions and results of operations of Orca as at and for the year ended December 31, 2016, available under Orca's profile at [www.sedar.com](http://www.sedar.com).

### EXCHANGE RATES

The following table sets forth: (i) the rate of exchange to United States dollars, expressed in Canadian dollars, in effect at the end of each of the period indicated; (ii) the average exchange rates in effect during such period; and (iii) the high and low exchange rates during such period, in each case based on the daily average exchange rate as quoted by the Bank of Canada (the "**Bank of Canada Rate**"). On May 9, 2017, based on the Bank of Canada Rate, the exchange rate for one United States dollar expressed in Canadian dollars and Tanzanian shillings, was \$1.00 equals CDN\$1.3728 and \$1.00 equals TZS 2235.8640, respectively.

	Year ended December 31, 2016
	CDN\$
Rate at end of Period	1.3427
Average rate during Period <sup>(1)</sup>	1.3248
High	1.4589
Low	1.2544

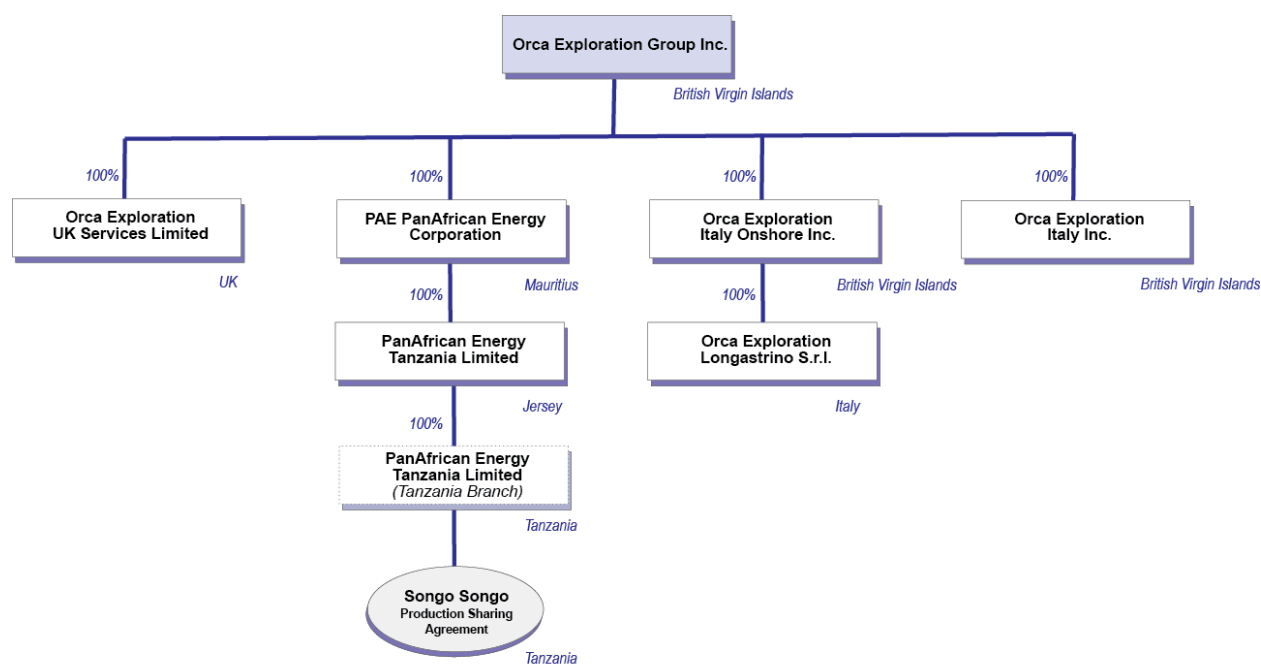
Notes:

- (1) Based on an average of the daily Bank of Canada Rates for each day during the respective period.
- (2) US\$1.00 equaled TZS 2,172.62 on December 31, 2016.

### CORPORATE STRUCTURE

Orca Exploration Group Inc. ("**Orca**" or the "**Company**" or the "**Corporation**") was incorporated pursuant to a memorandum and articles of association pursuant to the laws of the British Virgin Islands on April 28, 2004. Its Class A Shares and Class B Subordinate Voting Shares are publicly listed and traded on the TSXV under the trading symbols "ORC.A" and "ORC.B", respectively. Orca was originally incorporated as "EastCoast Energy Corporation" and on November 14, 2006, the shareholders of Orca approved a name change to "Orca Exploration Group Inc.". On February 2, 2007, the name change was registered with the Registrar of Corporate Affairs pursuant to the *BVI Business Companies Act, 2004*. On July 31, 2012, the Company's memorandum and articles of association were changed to conform with new provisions of the *BVI Business Companies Act, 2004* and to create a class of Preferred Shares.

As at December 31, 2016, the Company had six wholly owned subsidiaries, PanAfrican Energy Tanzania Limited ("PAET"), PAE PanAfrican Energy Corporation, Orca Exploration Italy Inc., Orca Exploration Onshore Italy Inc., Orca Exploration Longastrino S.r.l. and Orca Exploration UK Services Limited. PanAfrican Energy Tanzania Limited operates in Tanzania as a branch office.



The Company's operations are directed from its offices in Dar es Salaam, Tanzania. Orca's registered office in Canada is located at Suite 2400, 525 - 8th Avenue SW Calgary, Alberta T2P 1G1. Orca's principal operations are managed by PAET which operates out of Orca's Tanzania head office at Oyster Plaza Building, 5th floor, P.O. Box 80139, Haile Selassie Road Dar es Salaam. Orca is presently a reporting issuer in each of the Provinces of Alberta, British Columbia and New Brunswick.

## DESCRIPTION OF THE BUSINESS OF ORCA

### Corporate Profile

Orca is an international public company engaged in hydrocarbon exploration, development and marketing. Orca's principal focus is on:

- the exploration, production, development and marketing of natural gas in Tanzania to meet increasing demand from the power and industrial sectors; and
- the evaluation and potential acquisition of further oil or gas exploration opportunities.

### Tanzania

Orca's principal operating asset is its interest in the PSA with TPDC and the Government of Tanzania in the United Republic of Tanzania. This PSA covers the production and marketing of certain gas from the Songo Songo gas field.

The PSA defines the gas produced from the Songo Songo field as "Protected Gas" and "Additional Gas". Under the terms of the Gas Agreement dated October 11, 2001 (the "**Gas Agreement**"), TPDC has assigned its rights to sell or otherwise dispose of the Protected Gas to Songas Limited ("**Songas**"). Songas utilizes the Protected Gas as feedstock for its gas turbine electricity generators at Ubungo, for onward sale to the Wazo Hill cement plant and for

electrification of some villages along the pipeline route. Orca operates the Songas gas processing plant on a 'no gain no loss' basis.

Under the terms of the PSA and the Gas Agreement, PAET has the right to produce and (jointly with TPDC) market and sell all gas in the Songo Songo field in excess of the Protected Gas requirements ("**Additional Gas**"). In doing so, PAET utilizes some (but not all) of the infrastructure set out below.

### ***Songas Infrastructure***

- Five wells, four of which are currently in production (SS-7, SS-5, SS-9, SS-4) and one which is suspended (SS-3);
- Gas processing facility on Songo Songo Island with two gas processing trains (capacity of 110 MMscfd);
- 25 kilometer 12-inch high pressure offshore pipeline from the field to the Somanga Funga landfall;
- 207 km 16-inch high pressure onshore pipeline to Ubungo (capacity 102 MMscfd);
- 16 km 8-inch lateral pipeline to the Wazo Hill cement plant; and
- Ubungo Power Plant, consisting of six turbines.

### ***PAET Infrastructure***

- Three wells, two of which are in production (SS-10 and SS-11) and one of which is not (SS-12 requires platform and flowlines). Including the Songas wells, current production capacity is 155 MMscfd which can be increased to 180 MMscfd once SS-12 is tied into the NNGIP; and
- Low Pressure distribution network to Dar es Salaam, consisting of three pressure reduction stations with two separate connections to the 16 inch high pressure pipeline to Ubungo and 50 kilometers of low pressure distribution pipeline for delivery of gas to industrial customers in Dar es Salaam.

### ***NNGIP Infrastructure pipelines – total capacity of 784 MMscfd***

- 25 kilometer 24 inch pipeline from Songo Songo Island to Somanga Funga landfall – construction complete and commissioned in 2016; and
- 490 kilometer 36 inch pipeline from Mtwara to Somanga Funga landfall to Dar es Salaam – commissioned in 2015.

### ***NNGIP Gas Processing Plants – total production capacity of 350 MMscfd***

- Songo Songo Island, consisting of two 70 MMcfd processing trains (capacity total 140 MMcfd) commissioned and tied into the NNGIP pipeline infrastructure in 2016;
- Mtwara, consisting of three 70MMcfd processing trains (capacity total 210 MMcfd) commissioned in 2015.

### ***Additional Gas Customers***

Additional Gas is sold to Songas by PAET under the terms of (an unsigned) Amended and Restated Gas Agreement ("**ARGA**").

PAET has developed and supplies Additional Gas to an industrial gas market in Dar es Salaam via its low pressure distribution network. As at December 31, 2016 PAET was supplying gas to 38 industrial customers, including the Tanzanian Portland Cement Company ("**TPCC**") the operator of the Wazo Hill cement plant.

PAET (together with TPDC) also supplies Additional Gas to TANESCO, PAET's largest customer. TANESCO is a parastatal organization, which is wholly owned by the Government of Tanzania, with oversight by MEM. TANESCO is responsible for the generation, transmission and distribution of electricity throughout Tanzania. Natural gas has become an integral component of TANESCO's power generation fuel mix as a more reliable source of supply over seasonal hydropower and a more cost effective alternative to liquid fuels. PAET currently supplies gas directly to TANESCO under the Portfolio Gas Supply Agreement dated June 17, 2011 (the "PGSA"). Under the PGSA, PAET is selling Additional Gas for consumption by the 102 MW TANESCO (Wartsilla engines) owned plant at Ubungo and the 45MW TANESCO owned power plant at Tegata. The PGSA specifically named the Symbion owned 112 MW power plant a third delivery point and allows for other delivery points as agreed between TANESCO and PAET. The Symbion plant together with a fourth delivery point, the Jacobsen 105 MW plant, were connected to the NNGIP infrastructure in 2015 to enable the commissioning of the Mtwara gas processing plant and the 492 kilometer pipeline from Mtwara to Dar es Salaam.

The priority of delivery of gas from the Songo Songo gas field is as follows:

- Protected Gas (Songas);
- Additional Gas to Songas;
- Additional Gas sales to industrial customers contracted before June 17, 2011 up to a maximum of 15,176 MMbtu per day;
- Additional Gas sales to TANESCO under the PGSA up to 36,792 MMbtu per day; and
- any new sales to non-TANESCO customers after June 17, 2011.

#### ***Additional Gas Prices***

For the year ended December 31, 2016, the average price was US\$7.70/Mcf (2015: US\$7.58/Mcf) for the industrial sector and US\$3.56/Mcf (2015: US\$3.54/Mcf) for the power sector.

The price of gas to the industrial customers is primarily linked to their replacement fuels which are either heavy fuel oil or in the case of the cement plant, imported coal. The price of gas to the power sector is fixed with provision for an annual inflationary increase.

#### ***Additional Gas Sales***

For the year ended December 31, 2016, the sales of Additional Gas to the power sector were 32.0 MMcfd (2015: 36.0 MMcfd). The lower levels of sales in 2016 compared to 2015 was due to TANESCO also being supplied gas through the NNGIP which was not available prior to October 2015 and the temporary suspension of power generation by Songas during the early part of 2016 due to the increase in its TANESCO receivable. For the year ended December 31, 2016, the sales of Additional Gas to the industrial sector were 12.5 MMcfd (2015: 11.4 MMcfd), the increase in volumes being the consequence of fewer days of unscheduled maintenance work by customers including cement, textile and edible oil companies and the consumption by new customers connected during 2016.

#### **Future Demand and Market Growth**

The total annual natural gas demand in Tanzania is anticipated to increase by 8% per annum. This is expected to be reflected in increasing demand for gas by PAET's existing industrial customers as they expand their facilities and new customers. In addition, a number of the existing customers are purchasing their own electricity generators, which appears to be a growing trend.

## Current Power Demand

The table below provides current gas power plant generation capabilities in Tanzania.

Plant	Infrastructure used for supply	Status	Installed Capacity (MWs)	Maximum MMSfd (equiv)	Seller
SONGAS Ubungo – one to five turbines	SONGAS	Operational	140	28	TPDC
SONGAS Ubungo – sixth turbine	SONGAS	Operational	42	9	PAET
TANESCO at Ubungo	SONGAS	Operational	102	21	PAET/TPDC
TANESCO at Tegeta	SONGAS	Operational	45	10	PAET/TPDC
TANESCO - Symbion B	SONGAS	Currently - inactive	21	4	PAET/TPDC
NNGIP Symbion A	NNGIP	Operational	112	27	Maurel & Prom
NNGIP Jacobsen	NNGIP	Operational	105	23	Maurel & Prom
NNGIP Kinyerezi I (Part I)	NNGIP	Operational	70	16	Maurel & Prom
<b>Total as at December 31, 2016</b>			<b>637</b>	<b>138</b>	

*NOTE: The above information is based on information accumulated by the Company, and supported by discussions with TPDC.*

As of December 31, 2016, Tanzania's total installed power generation capacity was 1,583 MWs composed of 637 MWs (40 percent) related to natural gas plants, 561 MWs (35 percent) from hydro and 385 MWs (31 percent) from liquid fuel power plants. Traditionally there had been a high dependence on hydro generation; however, weather events, including droughts, have and could in the future negatively impact the ability to generate power through hydro. The only major storage is at the Mtera reservoir which supplies the 80 MW Mtera and 200 MW Kidatu hydro plants. The remaining 281 MWs of hydro generation is "run of river" which is normally operational an average of 4-5 months in a given year.

Under the Tanzanian Power System Master Plan 2016 and the Electricity Supply Industry Reform Strategy 2014 (updated in 2016), the Government of Tanzania intends to increase the installed power generation capacity to 10,000MW by 2025 from the current level of 1,583MWs, with 4,000MWs of the increased capacity being attained through the installation of new gas powered plants. Under the Tanzania Power System Master Plan updated in 2016, TANESCO will expand its transmission and distribution systems to meet the objective of increasing electrification levels. Only 24% of the population currently has access to electricity.

In 2016, the peak total power demand was 833 MWs. The Tanzania Power System Master Plan anticipates that liquid fuel power plants will be displaced through a combination of new hydro and gas plants. Government estimates consider that the total power demand will increase by 8% per annum.

### Near term planned Gas Powered Plants

The table below details the near term planned expansion to gas power plants in Tanzania.

Plant	Estimated operational date	Expected Capacity(MWs)	Maximum MMscfd (equivalent)	Seller
Kinyerezi I (part 2) (awaiting commissioning)	Q4 2018	80	16	Unknown
Kinyerezi II (under construction)	Q1 2018	240	48	Unknown
Symbion at Mnazi Bay	Q1 2019	300	60	Unknown
Kinyerezi III	Q2 2019	300	60	Unknown
Kinyerezi IV	Q3 2019	450	90	Unknown
Total potential growth		<b>1,370</b>	<b>294</b>	

*NOTE: The above quoted dates and capacity numbers are best estimates based upon meetings PAET has held with key stakeholders over the course of the last 24 months, including the Ministry of Energy and Minerals, TPDC, TANESCO and several service providers and contractors. Given the size and financial commitments required to complete the projects, there is a good probability that estimates for completion dates and expected capacity could change.*

Based on these near term expansion figures, the current forecast is that the power sector could consume the majority of the uncontracted gas reserves from the Songo Songo field.

### Principal Terms of the PSA and Related Agreements

The PSA (between the Government of Tanzania, TPDC and PAET) dated October 11, 2003 acknowledges that TPDC has been granted a development license for the Songo Songo gas field under the Petroleum Act 1980. It also confirms that, in accordance with the terms of the Gas Agreement, PAET and TPDC have been jointly granted the right to market and sell Additional Gas and to share in the net sales revenues. The PSA sets out in detail the rights and obligations of TPDC and PAET in relation to sales and how PAET may recover its costs and expenses before profits are shared (and in what proportions). The PSA is for a term of 25 years but may be extended.

The Gas Agreement (between the Government of Tanzania, TPDC, Songas and PAET) acts as an assignment of TPDC's rights under the Songo Songo licence to Songas (in respect of Protected Gas) and PAET (in respect of Additional Gas). It is under this agreement (as confirmed by the PSA) that PAET is given the rights to explore, develop and produce Additional Gas, subject to the priority of Protected Gas. The Gas Agreement regulates how certain expenditures for the development of the Songo Songo field should be apportioned between Songas and PAET. An unsigned amendment to the Gas Agreement was initialed in 2008, which increased volumes of Additional Gas which could be sold and provides for sales of such Additional Gas to Songas.

No sale of Additional Gas may be made if, in PAET's reasonable judgment, such sales would jeopardize the supply of Protected Gas. Any Additional Gas contracts entered into are subject to interruption. Songas has the right to request that PAET and TPDC obtain security reasonably acceptable to Songas prior to making any sales of Additional Gas to secure PAET's and TPDC's obligations in respect of insufficiency. PAET and TPDC shall be jointly liable for any such insufficiency.

The Operatorship Agreement, as amended and restated, dated October 11, 2001 between Songas Limited and PanAfrican Energy Tanzania Limited established PAET as the operator of the Songo Songo gas field and processing plant, and to explore, develop and produce Protected Gas on a not for profit basis. It included provisions as to how costs and expenses are to be charged and recovered. PAET is able to utilize the Songas infrastructure including the gas processing plant and main pipeline to Dar es Salaam. Access to the pipeline and gas processing plant is open and can be utilized by any third party who wishes to process or transport gas.

The Gas Processing and Transportation Agreement dated October 11, 2001 between Songas Limited and PanAfrican Energy Tanzania Limited establishes the terms and conditions whereby Songas agrees to process and transport Additional Gas for PAET up to the capacity of the Songas processing plant and pipeline facilities (as may be expanded from time to time). Priority for the transportation and delivery of gas is given to Protected Gas. The charges payable by PAET are set out in the Gas Processing and Transportation Agreement. Songas is not required to incur capital costs with respect to additional processing and transportation facilities unless the construction and operation of the facilities are, in the reasonable opinion of Songas, financially viable. If Songas is unable to finance such facilities, Songas shall permit the seller of the gas to construct the facilities at its expense, provided that the facilities are designed, engineered and constructed in accordance with good pipeline and oilfield practices.

The Amended and Restated Implementation Agreement dated April 30, 2003, between the Government of the United Republic of Tanzania, Songas Limited, PAE PanAfrican Energy Corporation, CDC Group plc, and Globelec Generation Limited gives PAE PanAfrican Energy Corporation certain investment rights as the shareholder of PAET in respect of the investment in the Songo Songo project. The term of this agreement is tied to the Power Purchase Agreement and the Gas Processing and Transportation Agreement.

In 2011 PAET signed a re-rating agreement with TANESCO, TPDC and Songas (the "**Re-Rating Agreement**") which evidenced an increase to the gas processing capacity of the Songas facilities to a maximum of 110 MMcfd (the pipeline and pressure requirements at the Ubungu power plant restrict the infrastructure capacity to a maximum of 102 MMcfd). Under the terms of the Re-Rating Agreement, PAET paid additional compensation of US\$0.30/mcf for sales between 70 MMcfd and 90 MMcfd and US\$0.40/mcf for volumes above 90 MMcfd by issuing credit notes to TANESCO. This was in addition to the tariff of US\$0.59/mcf payable to Songas as set by the energy regulator, EWURA.

In May 2016 PAET notified TANESCO and Songas that the additional compensation for sales over 70 MMcfd would no longer be paid effective June 2016. The additional compensation was always intended to be temporary in nature until the expansion of the Songas infrastructure, at which time Songas would apply to EWURA to obtain approval of a new tariff for the processing of volumes over 70 MMcfd. The PGSA provides for passing on to TANESCO any tariff to be charged to PAET and in the event that a new tariff is approved.

The parties are seeking to resolve the status of the Re-Rating Agreement. The processing capacity at the Songas facilities remains unaltered and is fully utilized by the Company. Without a new agreement, there are no assurances that Songas will continue to allow the gas plant to operate above 70 MMcfd. See "*Risk Factors – Orca's Operational Dependence – Risks of Lack of Access to Songas Processing and Transportation*".

### **International Finance Corporation Financing**

On October 29, 2015, the Company finalized a US\$60 million financing agreement with IFC, a member of the World Bank Group through a loan to the Company's operating subsidiary PAET (the "**Loan**"). Proceeds of the Loan, which was fully drawn down in 2016, were used to fund the costs related to the "**Off-Shore Programme**" which included (i) the work required to put safe existing suspended and operating production wells; (ii) restore and increase the current productive capacity of the Songo Songo Main Field to ensure the continued delivery of protected and additional gas into the existing Songas infrastructure; and (iii) provide additional operational redundancy and deliverability for future additional gas sales, by way of the workover and recompletion, abandonment or side-track drilling of three existing offshore wells, and/or the drilling of additional production gas wells at locations to be determined in the region of the existing offshore wells depending on the outcome of the workovers.

The term of the Loan is 10-years, with no repayment of principal for the first seven years, followed by a three-year amortization period. The Loan is an unsecured subordinated obligation of PAET and is guaranteed by the Company to a maximum of US\$30 million. The guarantee may only be called upon by the IFC at maturity in 2025. Subject to IFC and receipt of regulatory approvals, Orca may issue shares in fulfillment of all or part of the guarantee obligation in 2025.

Base interest on the Loan is payable quarterly at 10% per annum on a 'pay-if-you-can-basis' using a formula to calculate the net cash available for such payments as at any given interest payment date. In addition, an annual variable participatory interest equating to 7% of the net cash flow from operating activities of PAET net of net cash flow used in investment activities is payable in respect of any given year, commencing with the 2016 fiscal year, payable after the annual audited financial statements have been released. Such participatory interest survives the repayment and/or maturity of the Loan until October 15, 2026. It is also detachable from the Loan and accordingly can be transferred independently. Dividends and distributions from PAET to Orca are restricted at any time that any amounts payable related to base interest, principal or participatory interest are unpaid and outstanding.

To date, PAET has made all quarterly base interest payments in full and for fiscal 2016, there is no annual variable participatory interest payment due for the year as the net cash flow from operating activities less net cash flow used in investment activities is a negative amount.

Full details of the Loan are available on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

## **Italy**

In May 2010, the Company signed an agreement with a third party to farm in on such third party's permit offshore Italy. Changes in Italian environmental legislation in late 2015 have resulted in the indefinite postponement of development of the Italian license. As at the date of this AIF, the Company has no further capital commitments in Italy.

## **New Ventures**

The Company is focussed on acquiring further assets to complement the cash-generating asset in Tanzania and the appraisal and exploration concessions in Italy. Any acquisition is conditional on a number of factors, including that any such assets must be in a proven hydrocarbon basin, have significant upside potential and can be drilled within a reasonable time period.

## **Competitive Conditions**

There is considerable competition in the worldwide oil and natural gas industry, including in Tanzania where the Company's assets and activities are located. Operators more established than the Company, with access to broader technical skills, larger amounts of capital and other resources, are active in the industry in which the Company operates. This represents a significant risk for the Company, which must rely on modest resources and access to capital markets for funding of its activities. See *Risk Factors*.

## **Environmental Regulation**

Orca is committed to meeting industry standards in each jurisdiction in which it operates with respect to human rights, environment, health and safety policies. Management, employees and contractors are governed by and required to comply with Orca's environment, health and safety policy as well as all applicable federal, provincial and municipal legislations and regulations.

It is the primary responsibility of the managers, supervisors and other senior field staff of Orca to oversee safe work practices and ensure that rules, regulations, policies and procedures are being followed. Orca has established roles and responsibilities to facilitate effective management of these policies throughout the organization.

### **Risks of Foreign Operations**

All of the Company's oil and natural gas operations occur overseas and therefore are subject to political and regulatory risk in those other jurisdictions. As of December 31, 2016, virtually all of the Company's production and related revenue is generated in Tanzania, and all of its natural gas reserves are located in Tanzania. See *Risk Factors*.

### **Bankruptcy and Similar Procedures**

There have been no bankruptcy, receivership or similar proceedings against the Company or any of its subsidiaries, or any voluntary receivership, bankruptcy or similar proceeding by the Company or any of its subsidiaries, within the three most recently completed financial years or during or proposed for the current financial year.

### **Reorganizations**

There have been no material reorganizations of the Company or any of its subsidiaries within the three most recently completed financial years or during or proposed for the current financial year.

### **Personnel**

As at the date of this AIF, Orca has three executive officers, four non-executive directors and an additional 94 employees, the majority of whom are located at the PAET head office in Dar es Salaam or adjacent to the field operations on Songo Songo Island.

## **GENERAL DEVELOPMENT OF THE BUSINESS OF ORCA**

Orca is an international public company engaged in hydrocarbon exploration, development and marketing. Through its wholly owned subsidiaries, Orca is engaged in exploring for, developing and producing natural gas in Tanzania. The Company's principal operating asset is its interest in the PSA with TPDC and the Government of Tanzania. The PSA covers the production and marketing of certain gas from the Songo Songo Block offshore Tanzania. The following are the material events that have influenced the development of the business of Orca over the last three years.

### ***Developments in 2014***

In the first half of 2014, Songas infrastructure capacity continued to expand, and as a result, the Company continued to move forward with its Development Programme. As at December 31, 2014, PAET had a field productive capacity of approximately 89 MMcfd, with the expansion of production volumes limited to 102 MMcfd by the available Songas infrastructure. Production wells SS-3, SS-5 and SS-9 were suspended pending workovers. The SS-4 well was being monitored and could be suspended in the future due to tubing integrity issues. In order to finance the Development Programme, Orca continued to negotiate with IFC and other financial institutions regarding a potential credit facility or loan.

### ***TANESCO Receivables***

The Company evaluates the collectability of its receivables on the basis of payment history, frequency and predictability, as well as Management's assessment of the customer's willingness and ability to pay. The Company has been affected by TANESCO's financial difficulties and inability to pay for the past 3 years. PAET, through a series of meetings with TPDC and TANESCO, reached an understanding with the state utility that PAET and TPDC would continue to supply gas only if TANESCO remained current on payments for current gas deliveries, and any excess payments received over and above the current balances would be applied to the arrears balance.

TANESCO payments were irregular even though TANESCO committed in writing on several occasions of its intention to make weekly payments. On two occasions, formal demands were issued to TANESCO for payment, and formal notices of dispute as a first step in the formalizing the collection process as set out in the PGSA which

provides the basis for Additional Gas sales to TANESCO. The satisfaction of the arrears continued to be an issue at the end of 2014. As at December 31, 2014, TANESCO owed PAET US\$59.8 million excluding interest, of which US\$52.2 million were in arrears and provided for as impaired.

### *Developments in 2015*

In 2015, the Company secured financing of up to US\$60 million from the IFC. The financing agreement was structured as a loan to the Company's operating subsidiary PAET. Proceeds of the Loan were used to cover the costs of the Offshore Programme for the Songo Songo gas field. The drawdown of funds from the Loan were used for a drilling contract with Paragon Offshore plc for use of its M826 Mobile Drilling Workover Rig, as well as the provision of associated services, in order to execute the Off-Shore Programme. The Company received the first drawdown of US\$20 million in December 2015.

The Off-Shore Programme commenced in September 2015 and the field workovers were successfully completed in Q4 2015.

### *TPDC – Unbundling of downstream assets*

During the third quarter of 2015, the *Petroleum Act, 2015* (the "**Act**"), was passed into law by Presidential decree. The Act, which repealed earlier legislation, provides a regulatory framework over mid-stream and downstream gas activity, and consolidates and puts in place a single, effective and comprehensive legal framework for regulating the oil and gas industry in Tanzania. The Act also provides for the creation of an upstream regulator, the Petroleum Upstream Regulatory Authority. The mid and downstream petroleum as well as gas activities are proposed to be regulated by the current authority, the Energy and Water Utilities Regulatory Authority.

The Act confers upon TPDC the status of the National Oil Company, mandated with the task of managing the country's commercial interest in the petroleum operations as well as mid and downstream natural gas activities. The Act vests TPDC with exclusive rights in the entire petroleum upstream value chain and the natural gas mid and downstream value chain. However, the exclusive rights of the National Oil Company do not extend to mid and downstream petroleum supply operations. The Act provides grandfathering provisions upholding the rights of PAET under the PSA, as the PSA was signed prior to passing of the Act. However, it is still unclear how the provisions of the Act will be interpreted and implemented regarding upstream and downstream activities and the potential impact on its business in Tanzania.

### *Changes in Directors and Management*

On June 1, 2015, the Company appointed Mr. Glenn Gradeen as a director of the Company.

On November 2, 2015, the Company announced the appointment of Mr. Blaine E. Karst as Chief Financial Officer. The appointment followed the reassignment of former CFO, Robert S. Wynne, who assumed a senior advisory role, working directly with the CEO and CFO.

### *2015 Normal Course Issuer Bid*

On December 29, 2014, Orca announced its intention to commence a Normal Course Issuer Bid to purchase, from time to time, up to 1,653,600 Class B Subordinate Voting Shares on the open market through the facilities of the TSXV, to a maximum of CDN\$5 million. The Bid provisions were in effect from January 1, 2015 to December 31, 2015. Under the provisions, the Company repurchased 58 thousand shares.

### *Developments in 2016*

After conducting the Songo Songo workovers in 2015, the rig spudded the SS-12 well in the central part of the field between SS-11 and SS-7. The SS-12 well was successfully completed in February 2016 encountering the top of the reservoir approximately 100 meters high to prognosis. As a result, the Company did additional petrophysical analysis to take into account the SS-12 well results and the impact on the Company's understanding of the Songo

Songo main field reservoir. This well provided the Company with additional reservoir structure and size data, the results of which were incorporated in the 2016 Reserve Report. Upon completion of SS-12, the drilling rig was released.

To complete the full Development Programme, the SS-12 production facilities and flowlines need to be constructed and connected to the NNGIP gas processing facilities at Songo Songo Island. The Development Programme also includes the installation of a refrigeration unit at the Songas gas processing facility to be able to produce wells into the NNGIP.

The total cost of the Off-Shore Programme was originally estimated at US\$120 million, however, following the completion of the drilling program for Songo Songo Main Field, the total cost is now estimated at US\$80 million. The reduction in costs was a result of: (i) being able to successfully workover the three wells without having to do any side-tracking; (ii) efficiencies achieved during the workovers; and (iii) changes in the scope of work which reduced the original estimated time required to complete the programme.

The final US\$40 million drawdown of the US\$60 million IFC Loan, was received on February 19, 2016.

#### *Changes in Directors and Management*

On June 7, 2016, the Company appointed Mr. Alan Knowles as a director of the Company.

#### *National Natural Gas Infrastructure Project*

The NNGIP includes the construction of two expandable Natural Gas Processing Plants at Mtwara (210 MMcfd) and Songo Songo (140 MMscfd) together with a 36" Pipeline from Mtwara to Dar es Salaam with a 24" subsea spur line from Songo Songo Island to the tie in to the mainland at Somanga Fungu, Kilwa Region. The project was completed in 2016 with the commissioning of the NNGIP gas processing facility on Songo Songo Island. The pipeline infrastructure has capacity to transport up to 784 MMcfd of natural gas without compression. However, Tanzania plans to gradually increase production to reach this capacity, forecasting volumes of 724 MMcfd in 2024 and up to 1002 MMcfd in 2030.

TPDC and PAET have drafted a revised gas sales agreement to allow direct gas delivery to the NNGIP. Discussions and negotiations for commercial terms for future incremental gas sales are ongoing.

#### *TANESCO Receivable*

Pursuant to the terms of the PGSA, on April 25, 2016, PAET and TPDC issued a joint notice to TANESCO that they would consider suspending deliveries under the agreement unless suitable arrangements were made by TANESCO to settle arrears and maintain payments for current deliveries (the "**Suspension Notice**"). Although the Suspension Notice has not been withdrawn, the Company agreed not to act on the Suspension Notice given the commitment by TANESCO to make regular weekly payments to cover current deliveries. Payments since this time have been reasonably current but not enough to reduce any of the arrears balance.

At December 31, 2016, TANESCO owed PAET US\$80.1 million excluding interest (of which arrears were US\$74.4 million) compared to US\$69.8 million as at December 31, 2015 (arrears of US\$61.9 million).

As a result of TANESCO's inability to fully pay all amounts invoiced by PAET for the past few years, management of the Company has modified its approach to revenue recognition as it relates to TANESCO only. Commencing on October 1, 2016 the Company will record a percentage of the amounts invoiced to TANESCO for revenue recognition purposes. The percentage amount was determined by comparison of TANESCO's historical payment history to the amounts invoiced by PAET over the past three years. Management believes this approach provides the best estimate of TANESCO's ability to pay and remain reasonably current and as well reflects the economic reality of the situation. This results in a reduction in revenue recognized from the effective date.

The percentage used to recognize TANESCO revenue will be reviewed on at least a semi-annual basis, and more frequently if circumstances require. If there is a significant difference between the amount of revenue recorded and amounts received, the percentage used to record revenue as well as any existing receivable or deferred revenue balance will be revised accordingly.

As a result of recording revenue based on the expected collectability from the effective date, there is the following impact on the 2016 results:

- (1) US\$1.6 million decrease in revenue;
- (2) US\$1.3 million decrease in long-term receivables, allowance for doubtful accounts;
- (3) US\$0.6 million decrease in current accounts receivable; and
- (4) US\$0.3 million decrease on net income and current liabilities.

#### *Other Receivables*

As at December 31, 2016, the net amount owed by Songas to PAET was US\$21.0 million. The Company considers the doubtful debt provision of US\$9.8 million is appropriate, recognizing the possible settlement of the disputed overdue operatorship charges and the Songas share of the well workover costs. Additional specific financial information about the Company, including further discussion regarding receivables, is provided in our most recent financial statements and management's discussion and analysis and may be found on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

The Company has a substantial "Tax Recoverable" balance. This arises from the revenue sharing mechanism within the PSA which entitles PAET to a share of revenue equivalent to its tax charge, grossed up at the prevailing income tax rate. These amounts are collected by way of an offset against TPDC's share of revenue, as and when PAET pays its tax.

#### *Italy*

The Company is party to an agreement with a third party to farm in on such third party's permit Offshore Italy. No activity occurred on the permit during 2016. Changes in Italian environmental legislation in late 2015 have resulted in the development of this permit being postponed indefinitely.

#### ***Recent Developments***

##### *Songo Songo field development and contracts*

PAET has been involved in ongoing negotiations in an effort to secure a Gas Sales Agreement with TPDC to enable the sale of Additional Gas through the NNGIP infrastructure. Until the Gas Sales Agreement is in place, PAET's production volumes are limited, by the Songas infrastructure and contractual constraints of 102 MMscfd. PAET produced an average of 82.0 MMscfd (based on the total production of Protected and Additional Gas) in 2016.

##### *Additional Gas Plan*

On March 21, 2017, through TPDC, PAET applied to the MEM for approval of the Second Additional Gas Plan (the "AGP2") prepared pursuant to the terms of the Gas Agreement. The AGP2 as agreed to among PAET, TPDC and Songas provides for an updated framework for the production and development of the Songo Songo reserves and will permit PAET and TPDC to increase the sale of Additional Gas. Pursuant to the terms of the Gas Agreement, MEM has 60 days to either approve the plan, or provide written reasons for not approving the plan put forward in AGP2.

The AGP2 makes certain assumptions regarding the potential future gas sales and investments that are considered reasonable by both TPDC and PAET. Such assumptions include:

- (1) a commercially viable Gas Sales Agreement is established between TPDC and PAET;
- (2) interface and inter-operational issues between the Songas and the NNGIP gas processing plants are addressed;
- (3) the existing PGSA with TANESCO will be superseded upon establishment of a Gas Sales Agreement for additional volumes of gas to TPDC through the NNGIP; and
- (4) expansion of other gas markets based on the assessment of current and future demand will be subject to the approvals process between PAET and TPDC as provided for within the PSA.

Approval of the AGP2 is required for any sales of Additional Gas to take place in accordance with the updated framework proposed under the Gas Sales Agreement.

### ***Completion of the Phase 1 Development Programme***

The first phase of the Development Programme, which includes the Offshore Programme, provides for additional onshore workovers, refrigeration systems and additional infrastructure to ensure all production commitments are met through to the end of the license in 2026. The Company does not expect to commit to further significant capital expenditures until:

- agreeing on commercial terms with TPDC for the supply of incremental gas sales volumes from Songo Songo to the NNGIP; and/or
- TANESCO arrears have been substantially reduced, guaranteed or other arrangements made for payment of gas sales which are satisfactory to the Company; and/or
- the establishment of payment guarantees with the World Bank or other multi-lateral lending agencies to secure future receipts under any new sales contracts with Government entities; and/or
- the granting of a license extension post 2026.

### **Significant Acquisitions**

Orca did not complete any significant acquisitions during its most recently completed financial year for which disclosure is required under Part 8 of National Instrument 51-102 *Continuous Disclosure Obligations*.

### **Anticipated Changes in the Business**

Other than the anticipated approval of AGP2 and the negotiation of the Gas Sales Agreement with TPDC, the Company does not anticipate any imminent changes in the nature of the business. The Company is currently actively looking for new venture opportunities. The ability to close any opportunity is dependent upon resolution of the TANESCO arrears and the successful negotiation of a Gas Sales Agreement with TPDC (see *Risk Factors – Collectability of Receivables* and *Risk Factors – Acquisition Risk*).

## **STATEMENT OF RESERVES DATA AND OTHER OIL AND GAS INFORMATION**

In accordance with National Instrument 51-101, McDaniel prepared a report dated March 14, 2017. The McDaniel Report evaluated, as at December 31, 2016, the Company's Tanzanian natural gas reserves for the period to the end of its licence in October 2026.

The Company's Statement of Reserves Data and Other Oil & Gas Information in the form of NI 51-101F1, Report of Management and Directors on Oil and Gas Disclosure in the form of NI 51-102F3 and Report on Reserves Data by McDaniel in the form of NI 51-102F2 were filed on Orca's SEDAR profile at [www.sedar.com](http://www.sedar.com) on March 16, 2017, and are incorporated by reference into this AIF.

### **DIVIDEND POLICY**

Orca has not declared or paid any dividends on its Class A Shares or Class B Subordinate Voting Shares since incorporation. Any decision to pay dividends on the common shares will be subject to the discretion of the Company's Board of Directors and may depend on a variety of factors, including the Company's earnings, financial position, financial requirements and other conditions existing at such future time.

### **SHARE CAPITAL**

The authorized share capital of Orca consists of 50,000,000 Class A Shares, 100,000,000 Class B Subordinate Voting Shares and 100,000,000 First Preference Shares.

#### **Class A Shares**

The holders of Class A Shares Common Voting Shares are entitled to twenty (20) votes in respect of each Class A Common Voting Share at meetings of the Company's shareholders, to receive dividends if, as and when declared by the directors and, subject to the rights of holders of any other class of shares entitled to receive assets of the Company in priority or rateably with the holders of Class A Common Voting Shares and to participate rateably with the holders of Class B Subordinate Voting Shares in any distribution of the assets of the Company in the event of the liquidation, dissolution or winding-up of the Company. The Class A Common Voting Shares are convertible at any time at the option of the holder into Class B Subordinate Voting Shares on a one-for-one basis.

#### **Class B Subordinate Voting Shares**

The holders of Class B Subordinate Voting Shares are entitled to one (1) vote in respect of each Class B Subordinate Voting Share at meetings of the holders of Class B Subordinate Voting Shares, to receive dividends if, as and when declared by the directors and, subject to the rights of holders of any other class of shares entitled to receive assets of the Company in priority or rateably with the holders of Class B Subordinate Voting Shares, to participate rateably with the holders of Class A Common Voting Shares in any distribution of the assets of the Company in the event of the liquidation, dissolution or winding-up of the Company.

Subject to the terms and conditions of conversion specified in the articles of the Company, the Class B Subordinate Voting Shares are convertible into Class A Common Voting Shares on a one for one basis if an offer (an "**Exclusionary Offer**") is made to purchase Class A Common Voting Shares that: (i) must, by reason of applicable securities legislation or the requirements of a stock exchange on which the Class A Common Voting Shares are listed, be made to all or substantially all of the holders of Class A Common Voting Shares; and (ii) is not made concurrently with an offer to purchase Class B Subordinate Voting Shares that is identical to the offer to purchase Class A Common Voting Shares and that has no condition attached other than the right not to take up and pay for shares tendered if no shares are purchased pursuant to the offer for Class A Common Voting Shares. The conversion right does not come into effect under certain events specified in the articles of the Company, including the delivery to the Company's transfer agent and to the Secretary of the Company of a certificate signed by one or more shareholders owning more than 50% of the then outstanding Class A Common Voting Shares.

#### **First Preferred Shares**

The First Preferred Shares are issuable in series. Before a shares of a particular series are issued the Board will, by resolution and subject to the rights attached to the First Preferred Shares, fix the designation, rights, privileges, restrictions and conditions to be attached to the First Preferred Shares of such series which terms may include the rate, amount or method of calculation of dividends thereon, the consideration for and the terms and conditions of any purchase for cancellation, retraction or redemption thereof, conversion or exchange rights (if any), and whether

into or for securities of the Company or otherwise, voting rights attached thereto (if any) and restrictions on the payment of dividends on any shares other than First Preferred Shares or payment in respect of capital on any shares in the capital of the Company or creation or issue of debt or equity securities.

The First Preferred Shares of each series shall rank on a parity with the First Preferred Shares of every other series with respect to accumulated dividends and returns of capital. The First Preferred Shares are entitled to a preference over any other shares of the Company ranking junior to the First Preferred Shares with respect to the payment of dividends or the distribution of assets in the event of the liquidation, dissolution or winding-up of the Company. The First Preferred Shares shall participate rateably in respect of any cumulative dividends or amount payable on a return of capital that are not paid in full, provided that if the Company has insufficient assets to satisfy such claims in full, the holders of the First Preferred Shares with respect to repayment of capital shall first be paid and satisfied and any assets remaining shall be applied towards the payment in satisfaction of claims in respect of dividends.

As at the date of this AIF, there are 1,750,517 Class A Common Voting Shares and 33,147,645 Class B Subordinate Voting Shares of Orca outstanding. No First Preferred Shares are outstanding as at the date of this AIF.

## MARKET FOR SECURITIES

### Trading Price and Volume

The following table sets forth the price range and trading range of the Class A Shares and Class B Subordinate Voting Shares of Orca as reported by the TSXV for the periods indicated.

Class A Shares	Price Range		Volume
	High (\$)	Low (\$)	
<b>2016</b>			
January.....	3.00	3.00	1,536
February.....	3.00	3.00	0
March.....	3.00	3.00	30
April.....	3.00	3.00	0
May.....	3.00	3.00	0
June.....	6.50	6.50	800
July.....	6.50	6.50	0
August.....	6.50	6.50	1,000
September.....	7.00	7.00	2,180
October.....	7.00	7.00	0
November.....	7.00	7.00	0
December.....	7.00	7.00	0

### 2017

January.....	7.00	7.00	0
February.....	7.00	7.00	0
March.....	7.00	7.00	0
April.....	7.00	7.00	30
May 1 - 9 .....	7.00	7.00	0

**Class B Subordinate Voting Shares**

	<b>Price Range</b>		<b>Volume</b>
	<b>High (\$)</b>	<b>Low (\$)</b>	
<b>2016</b>			
January.....	2.79	2.35	98,618
February.....	3.68	2.30	271,392
March.....	4.44	3.40	257,125
April.....	4.14	3.35	266,903
May.....	3.85	3.20	176,790
June.....	3.61	3.23	194,687
July .....	3.80	3.40	118,570
August.....	3.69	3.50	188,065
September.....	3.60	3.40	584,008
October .....	4.10	3.50	287,048
November .....	4.05	3.76	302,826
December.....	4.07	3.61	480,687
<b>2017</b>			
January.....	3.89	3.76	98,894
February.....	4.10	3.80	44,818
March.....	3.95	3.80	60,578
April.....	4.10	3.75	160,064
May 1 - 9 .....	4.10	3.50	185,428

**ESCROWED SECURITIES**

There are presently no Orca securities held in escrow. Pursuant to the Loan with IFC, David Lyons has agreed to certain restrictions regarding the sale of his shares (see *Risk Factors Related to the Loan Agreement* below).

**DIRECTORS AND OFFICERS**

As at the date hereof, the name, place of residence, office and principal occupation for the past five years of each of our directors and executive officers are as follows.

<b>Jurisdiction of Residence</b>	<b>Present Positions and Offices With The Company</b>	<b>Date First Became A Director or Officer</b>	<b>Principal Occupation for last five years</b>	<b>Number of Shares Beneficially Owned or Controlled or Directed, Directly or Indirectly</b>
W. David Lyons, Gibraltar, British Overseas Territory	Chairman and Chief Executive Officer and Director	April 28, 2004	Chairman of Orca Exploration since 28 April 2004 and Chief Executive Officer of the Company since March, 2010. Chairman of Pan-Ocean Energy Corporation Limited, a Toronto Stock Exchange listed international oil and gas exploration and development company, between 1990 and 2006 and Chief Executive Officer until 2005.	1,743,708 Class A Common Voting Shares 5,463,260 Class B Subordinate Voting Shares

<b>Jurisdiction of Residence</b>	<b>Present Positions and Offices With The Company</b>	<b>Date First Became A Director or Officer</b>	<b>Principal Occupation for last five years</b>	<b>Number of Shares Beneficially Owned or Controlled or Directed, Directly or Indirectly</b>
David W. Ross, Calgary, Alberta, Canada	Secretary and Director	November 14, 2006	Counsel to Burnet, Duckworth & Palmer LLP.	NIL
William H. Smith Calgary, Alberta Canada	Director	June 15, 2012	Vice Chair and formerly Executive Vice President of Mosaic Capital Corporation, a TSXV listed investment firm, since January, 2010. Currently, principal, William H. Smith Professional Corporation, legal consultant, since July 2010. Mr. Smith was Non-executive director of several listed and privately held companies from May 17, 2013 until July 2016.	6,000 Class B Subordinate Voting Shares
Glenn D. Gradeen Calgary, Alberta Canada	Non-Executive Director	June 2, 2015	Chief Executive Officer, President and Director of Tangle Creek Energy Ltd. since September 2010. Chief Executive Officer, President and Director of Berkana Energy Corp. since September 2005. Formerly Chairman and Director of Toro Oil & Gas Ltd., a TSXV listed corporation, from 2010 until October 2014.	NIL
E Alan Knowles Calgary, Alberta Canada	Non-Executive Director	June 7, 2016	Director and Chair of the audit committee of Niko Resources Ltd. Oil and gas consultant since July 2014. Senior Oil and Gas Analyst at Haywood Securities from 2000 to 2014.	NIL
Blaine E. Karst Calgary, Alberta Canada	Chief Financial Officer	November 2, 2015	Director of Vostok Energy Public Limited Company (" <b>Vostok</b> "). Formerly Chief Financial Officer and Finance Director at Vostok since 2007.	NIL

## Notes:

- (1) All of our directors have been appointed to hold office until the next annual general meeting of shareholders or until their successor is duly elected or appointed, unless their office is earlier vacated.
- (2) The members of the Company's Audit Committee are Messrs. W. David Lyons, William H. Smith, Glenn Gradeen, David W. Ross and E Alan Knowles.
- (3) The members of the Company's Remuneration and Corporate Governance Committee are W. David Lyons, William H. Smith, Glenn Gradeen, David W. Ross and E Alan Knowles.
- (4) The members of the Company's Reserves Committee are W. David Lyons, William H. Smith, Glenn Gradeen, David W. Ross and E Alan Knowles.

As at May 9, 2017, the directors and executive officers of the Company, as a group, beneficially owned or controlled or directed, directly or indirectly, an aggregate of 1,743,708 Class A Common Voting Shares and 5,469,260 Class B Subordinate Voting Shares, being approximately 99.6% of the outstanding Class A Common Voting Shares and 16.5% of the Class B Subordinate Voting Shares, respectively.

The information as to shares beneficially owned or controlled or directed, directly or indirectly, is based upon information furnished to the Company by the respective individuals.

### **Corporate Cease Trade Orders, Bankruptcies, Penalties or Sanctions**

Other than as disclosed below, to our knowledge, no proposed director: (i) is, or has been in the last 10 years, a director, chief executive officer or chief financial officer of an issuer (including the Company) that: (a) while that

person was acting in that capacity was the subject of a cease trade order or similar order or an order that denied the issuer access to any exemptions under securities legislation, for a period of more than 30 consecutive days; (b) was subject to an event that occurred while that person was acting in the capacity of director, chief executive officer or chief financial officer, which resulted, after that person ceased to be a director, chief executive officer or chief financial officer, in the issuer being the subject of a cease trade or similar order or an order that denied the issuer access to any exemption under securities legislation, for a period of more than 30 consecutive days; or (c) while that person was acting in the capacity or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; (ii) has, within the last 10 years, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangements or compromises with creditors, or had a receiver, receiver manager or trustee appointed to hold his assets; or (iii) has been subject to: (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

William H. Smith was a director and officer of Oilexco Incorporated ("**Oilexco**") when, as a consequence of the severe disruption in the financial and commodity markets during the fall of 2008, it filed for protection under the *Companies Creditors' Arrangement Act* (Canada) and its wholly owned subsidiary in the United Kingdom filed for administration for the benefit of its creditors. Oilexco was subsequently suspended from trading by the TSXV in September 2009 and a cease trade order was issued by the Alberta Securities Commission for failure to file financial statements which cease trade order is still outstanding. In addition, the directors of Oilexco, including Mr. Smith, were reprimanded by the TSXV based on the TSXV finding that Oilexco ought to have issued certain press releases when it was insolvent.

Mr. Smith was also a director of SemBioSys Genetics Inc. ("**SemBioSys**") until May 2012. Subsequently a creditor obtained the appointment of a receiver for certain assets of SemBioSys over which the creditor held security.

To our knowledge, no current director or officer or securityholder holding a sufficient number of securities of the Company to affect materially the control of the Company has, within the last ten years prior to the date of this AIF, been a director or executive officer of any company (including the Company) that, while such person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement for compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

In addition, no current director or officer or securityholder holding a sufficient number of securities of the Company to affect materially the control of the Company has, within the last ten years prior to the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, officer or securityholder.

### **Conflicts of Interest**

Certain of our directors are associated with other companies or entities, which may give rise to conflicts of interest. Directors who have a material interest in any person who is a party to a material contract or proposed material contract with us are required, subject to certain exceptions, to disclose that interest and abstain from voting on any resolution to approve that contract. In addition, the directors are required to act honestly and in good faith with a view to our best interests.

As of the date of this AIF, Orca is not aware of an existing or potential material conflict of interest between the Company and a director or officer of Orca.

## LEGAL PROCEEDINGS

### Legal Proceedings

To the knowledge of our management, we are not a party to, nor are any of our properties subject to, any material or significant legal proceedings during the most recently completed financial year.

PAET has filed a contractual notice of dispute in relation to TPDC's rejection of costs recovered by the Company, totalling US\$34 million between 2002 and 2009 (see *General Development of the Business of Orca – Cost Pool Audit* above).

PAET is currently involved in several negotiations or disputes that may evolve and require enforcement of the Company's interests through litigation or arbitration (see *Risk Factors – Litigation and Disputes* below).

#### *Cost recovery*

TPDC has conducted audits of the historic Cost Pool. In 2011 TPDC disputed approximately US\$34 million of costs that had been recovered from the Cost Pool from 2002 through to 2009. In 2014, TPDC and PAET agreed to remove approximately US\$1.0 million from the Cost Pool. In 2015 and 2016, there were no further developments. Under the dispute mechanism outlined in the PSA, TPDC are to appoint an independent specialist to assist the parties in reaching agreement on costs that are still subject to dispute. As at the date of this AIF, no such specialist has been appointed. If the matter is not resolved to the Company's satisfaction, the Company intends to proceed to arbitration via the International Centre for Settlement of Investment Disputes pursuant to the terms of the PSA.

As of the date of this AIF, audits for 2017 are in the process of being prepared.

### Regulatory Actions

During the year ended December 31, 2016 there were: (i) no penalties or sanctions imposed against Orca by a court relating to securities legislation or by a securities regulatory authority; (ii) no other penalties or sanctions imposed by a court or regulatory body against Orca that would likely be considered important to a reasonable investor in making an investment decision; and (iii) no settlement agreements entered into by Orca with a court relating to securities legislation or with a securities regulatory authority.

## Tax Disputes

The Company is currently disputing a number of rulings and assessments with the Tanzania Revenue Authority regarding withholding taxes, deductibility of capital expenditures, foreign exchange rate application and value added taxes. The aggregate disputed amount for all matters totals US\$34.6 million. Management, with the advice from its legal counsel, has reviewed the Company's position on the tax disputes and appeals, and has concluded that no financial provision is necessary in regard to these disputes.

Area	Period	Tax dispute Reason for dispute	Disputed amounts US\$ million		
			Principal	Interest	Total
PAYE	2008-10	Pay-As-You-Earn ("PAYE") on grossed-up amounts in staff salaries which are contractually stated as net.	0.3	-	0.3 <sup>(1)</sup>
WHT	2005-10	WHT on services performed outside of Tanzania by non-resident persons.	1.1	0.7	1.8 <sup>(2)</sup>
Income Tax	2008-15	Deductibility of capital expenditures and expenses (2009 and 2012), additional income tax (2008, 2010, 2011 and 2012), tax on repatriated income (2012), foreign exchange rate application (2013 and 2015) and underestimation of tax due (2014).	16.8	10.1	26.9 <sup>(3)</sup>
VAT	2008-10	Output VAT on imported services and SSI Operatorship services.	2.7	2.9	5.6 <sup>(4)</sup>
			20.9	13.7	34.6

Notes:

- (1) In 2015 PAET appealed the Tax Revenue Appeals Board ("TRAB") ruling that PAET is liable to pay PAYE on grossed-up amounts in staff salaries. TRAB waived interest assessed thereon. PAET is awaiting ruling of the Tax Revenue Appeals Tribunal ("TRAT");
- (2) (a) 2005-2009 (US\$1.7 million): In 2016 the TRA filed an application for review of the Court of Appeal decision in favour of PAET and later filed another application for leave to amend its earlier application. At the Court of Appeal hearing subsequent to year-end, TRA withdrew their second application for review. The Court has set April 27, 2017 for hearing of the first application;
- (b) 2010 (US\$0.1 million): TRAB is awaiting a ruling from the review by the Court of Appeal on the 2005-2009 case, which would influence TRAB decision on this matter accordingly;
- (3) (a) 2009 (US\$1.8 million): In 2015 TRAB ruled against PAET with respect to the deductibility of capital expenditures and other expenses. PAET appealed to TRAT and is awaiting a hearing date to be scheduled;
- (b) 2008 and 2011 (US\$2.1 million): In 2015 PAET filed objections against TRA assessments with respect to the deductibility of capital expenditures and other expenses as well as underestimation of interest and is awaiting a response. Subsequent to year-end, TRA rejected PAET's objections for 2011 and undertook to issue a final assessment for the year. PAET intends to appeal the assessment. The 2008 assessment was issued late and is time-barred;
- (c) 2010 (US\$2.6 million): PAET filed an appeal with TRAB against TRA assessment with respect to the deductibility of capital expenditures and other expenses as well as underestimation of interest and penalty amounts. PAET is awaiting a hearing date to be scheduled;
- (d) 2013 (US\$0.2 million): During the year PAET filed objections to TRA assessment with respect to foreign exchange rate application and is awaiting a response.

(e) 2012 (US\$16.3 million): During the year TRA issued two assessments with respect to understated revenue, deductibility of capital expenditures and expenses, and tax on repatriated income. PAET filed an appeal with TRAB against the TRA decision to deny PAET a waiver required for its objection to be admitted and is awaiting a hearing date to be scheduled;

(f) 2014 (US\$3.5 million): During the year TRA issued an assessment with respect to underestimation of tax due based on the provisional quarterly payments made by PAET, delayed filings of returns and late payments. PAET filed objections to the assessments and is awaiting a response;

(g) 2015 (US\$0.4 million): During the year TRA issued a self-assessment. PAET filed an objection to the assessment with respect to foreign exchange rate application and is awaiting a response;

- (4) During the year TRA responded to PAET's objection filed in 2014 and issued an assessment in respect of output VAT on imported services and SSI Operatorship services. PAET filed an appeal with TRAB against TRA assessment and is awaiting a hearing date to be scheduled.
- (5) On March 29, 2017, management received a tax audit findings report from TRA for the years 2012 – 2014. The report requests the Company to elaborate on the corporation tax, repatriated income, VAT and withholding tax. Management is preparing its response and expects to submit it to TRA before the deadline of April 19, 2017.

Management, with the advice from its legal advisors, has reviewed the Company's position on the above objections and appeals and has concluded that no provision is required in its financial statements with regard to the above matters. Further information regarding the tax disputes is available in the Company's most recent financial statements and management's discussion and analysis and may be found on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

### INTEREST OF MANAGEMENT IN MATERIAL TRANSACTIONS

No director, executive officer, or shareholder who beneficially owns or controls or directs, directly or indirectly, 10% or more of the Company's common shares, or any associate or affiliate of the foregoing has, or has had, any material interest, direct or indirect, in any transaction in the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company or any of its subsidiaries and/or affiliates, except as disclosed elsewhere in this Annual Information Form.

### Related Party Transactions

One of the non-executive Directors is counsel with the law firm retained by the Company for legal services. During the year the Company incurred US\$0.2 million to this firm for services provided.

### REGISTRAR AND TRANSFER AGENT

CST Trust Company at its principal office in Calgary, Alberta at 600, 333 – 7th Avenue S.W., Calgary, Alberta T2P 2Z1 or 320 Bay St., Basement Level (B1), Toronto, Ontario, M5H 4A6 is the transfer agent and registrar for the Class A Shares and Class B Subordinate Voting Shares of Orca.

### MATERIAL CONTRACTS

Except for contracts entered into in the ordinary course of business, the only agreements which are material to Orca are the following:

#### Tanzania

1. Production Sharing Agreement dated 11 October 2001;
2. Gas Agreement dated 11 October 2001;
3. Gas Processing and Transportation Agreement dated 11 October 2001;
4. Operatorship Agreement dated 11 October 2001;
5. Amended and Restated Implementation Agreement dated 30 April 2003;

6. Portfolio Gas Supply Agreement dated 17 June 2011; and
7. Loan Agreement between PAET, IFC and the Company dated 29 October 2015.

The principal terms of these contracts are discussed under "*Description of the Business of Orca*".

Further information regarding the PSA is available in the Company's most recent financial statements and management's discussion and analysis which, along with the material contracts listed above, are incorporated by reference herein, and may be found on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

### **INTEREST OF EXPERTS**

Other than as described below, there is no person or corporation who is named as having prepared or certified a statement, report or valuation described and included in the filing, or referred to in a filing, made under National Instrument 51-102 by the Company during, or relating to the Company's most recently completed financial year whose profession or business gives authority to the statement, report or valuation made by the person, or Company, other than McDaniel, the Company's independent engineering evaluators, and KPMG LLP, the Company's auditors. KPMG LLP has advised the Company that they are independent with respect to the Company (and its related entities) within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation and regulation.

The partners and employees of McDaniel as a group, respectively, beneficially own, directly or indirectly, less than 1% of the outstanding Class A Common Voting Shares and Class B Subordinate Voting Shares of Orca.

### **RISK FACTORS**

An investment in the Company involves a number of risks. In addition to the risks set forth elsewhere in this rights offering circular, prospective investors should consider the following risks factors associated with such an investment.

#### **Orca Exploration Group Inc.**

There are numerous factors which may affect the success of Orca's business which are beyond Orca's control including local, national and international economic and political conditions. Orca's business will involve a high degree of risk which a combination of experience, knowledge and careful evaluation may not overcome. The operations of Orca in East Africa and Italy will expose Orca to risks which may not exist for domestic operations such as political and currency risks.

#### **Risks of Foreign Operations**

*Orca operates in areas that may be considered politically unstable and is subject to the laws of foreign jurisdictions*

Orca's operations and related assets are located in Italy and Tanzania which may be considered to be politically and/or economically unstable. The Company is subject to extensive Tanzanian laws and regulations governing prices, taxes, royalties, production, transport, pollution control, export of oil and many other aspects of the Company's business. There can be no assurance that the actions of present or future Tanzanian governments will not materially and adversely affect the business, financial condition or results of operations of the Company. Exploration or development activities in Tanzania and Italy may require protracted negotiations with host governments, national oil companies and third parties and there is no guarantee that results of these negotiations will be favourable.

In addition, if a dispute arises with regards to Orca's foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts (albeit in relation to Songo Songo, the agreements provide for international arbitration). Tanzania has a less developed legal system than those existing in developed countries and the Company may have difficulty in obtaining effective legal redress in the courts of Tanzania (see *Litigation and Disputes*

below). These risks may limit or disrupt the Company's operations, restrict the movement of funds, or result in the deprivation of contract rights or the taking of property by nationalization or expropriation without fair compensation and may materially adversely affect the Company's financial position and results of operations.

*Orca operates in regions that may be subject to a higher degree of political, social and economic risks than more developed regions*

Through its operations in foreign jurisdictions, the Company may become subject to economic and political risks, such as:

- the renegotiation, cancellation or forced modification of existing contracts and product sharing agreements;
- expropriation or nationalization of property;
- changes in laws or policies or increasing legal and regulatory requirements, including those relating to tax, royalties, imports, exports, duties, currency or other claims by government entities (including retroactive claims or changes in administration of laws, policies and practices);
- uncertain political and economic environments, war, terrorism, sabotage and civil disturbances;
- delays or inability to obtain or maintain necessary government permits or to operate in accordance with such permits or regulatory requirements; and
- currency fluctuations.

*The Tanzanian government exercises significant influence over Tanzania's oil and gas industry*

In Tanzania the state retains ownership of the minerals and consequently retains control of the exploration and production of hydrocarbon reserves. Accordingly, these operations may be materially affected by the government through royalty payments, export taxes and regulations, surcharges, value added taxes, production bonuses and other charges. The Government of Tanzania issued a National Natural Gas Policy in 2013, which policy contemplates greater government control over the industry and in some areas conflicts with the Company's rights under the Songo Songo PSA. This policy was confirmed with the passing of the *Petroleum Act, 2015* (the "**Petroleum Act**") during the past year. There can be no assurance that the rights of the Company under the PSA will be grandfathered with respect to any future natural gas legislation (see *Risks Associated with New and Existing Legislation* below).

The Company's development properties and its current proved natural gas reserves located offshore on the Songo Songo Island in Tanzania, are subject to regulation and control by the government of Tanzania and certain of its national and parastatal organizations including the energy regulator, EWURA and TPDC. Orca and its predecessors have operated in Tanzania for a number of years and management believes the Company has reasonably good relations with the current Tanzanian government. However, there can be no assurance that present or future administrations or governmental regulations in Tanzania will not materially adversely affect the operations or future cash flows of the Company.

There is a risk that in the future either the operatorship could change and the property operated by third parties or operations may be subject to control by national oil companies, Songas, or other parastatal organisations and, as a result, Orca may have limited control over the nature and timing of exploration and development of such properties or the manner in which operations are conducted on such properties.

*Risks of corruption in the jurisdictions in which the Company operates*

Corruption remains an issue in Tanzania, with the country ranking 116 out of 176 on the 2016 Transparency International Corruption Index, and 132 out of 190 on the World Bank's 2016 Ease of Doing Business Index. At the end of 2014, there was a significant corruption scandal in Tanzania's energy sector involving a number of senior government officials, including senior officials from MEM. Having assessed the Company's exposure to corruption

in Tanzania, it was concluded that the risk of the Company and/or its subsidiaries violating applicable laws prohibiting corrupt activities are mitigated or unlikely given the Company's controls relating to such risks and their effective operation. There can be no assurance, however that corruption may indirectly affect or otherwise impair the Company's ability to operate in Tanzania and effectively pursue its business plan in that country.

*The government of Tanzania may not honour its agreements with the Company*

The Government of Tanzania issued a National Natural Gas Policy in October 2013, which contemplates TPDC becoming sole aggregator of natural gas in the country. This policy objective conflicts with PAET's prior right under the PSA to directly market Additional Gas, and there is a risk that this prior right will not be recognized and that PAET's ability to maximize revenue on Additional Gas sales may be impaired by a requirement at law to sell gas to TPDC as aggregator. If Tanzanian authorities take the position that PAET's rights under the PSA are not grandfathered in under the new policy, it could result in materially adverse effects to the Company's business, financial condition and operating results, or could lead to a legal dispute between the Company and Tanzanian government entities (see *Litigation and Disputes* below).

*PAET is subject to regulation by other Tanzanian government entities that may impose restrictions or constraints on the Company's activities*

The Tanzania Revenue Authority ("**TRA**") is responsible for the collection of taxes in Tanzania. The TRA is not party to the Songo Songo PSA and there is no assurance that the TRA will consider itself bound by its terms. Accordingly, there is a risk that the TRA will take interpretations of issues distinct from the PSA that will result in assessments, penalties and fines which have not been contemplated by PAET, the costs of which may not be recoverable under the PSA. The TRA has significant powers in Tanzania and is capable of halting Orca's operations in the country.

PAET requires additional gas processing and transportation infrastructure to facilitate additional development and the ultimate monetization of PAET's reserves through Additional Gas sales. The Government of Tanzania has recently completed the US\$1.2 billion NNGIP that comprises of two gas processing plants, one at Mtwara and one on Songo Songo Island, and a pipeline to transport gas from Southern Tanzania to Dar es Salaam. PAET is currently negotiating commercial terms for the sale of incremental gas volumes, however there is no assurance that PAET's gas will be processed and transported to markets on economically viable terms. The Company has put in place an advisory committee of experienced individuals with significant experience working with the Tanzanian government to mitigate the risks of doing business in Tanzania.

*Orca may not be able to attract and retain qualified personnel in the regions where it conducts business*

Orca may have difficulty attracting and retaining qualified local personnel to work on its projects due to shortages of qualified workers and competition for their services. It may also be difficult to attract, employ and retain qualified expatriate workers as a result of legal restrictions, socio-economic issues and security concerns in the jurisdictions in which the Company operates. In the event of a labour shortage, Orca could be forced to increase wages in order to attract and retain employees, which may result in higher operating costs and reduced profitability. A failure by Orca to attract and retain a sufficient number of qualified workers could have a material adverse effect.

*The evolution and interpretation of Tanzanian legislation is uncertain and may impose restrictions on the Company*

There is uncertainty regarding the potential effects that the adoption of the Petroleum Act will have on the operations of the Company. While the Petroleum Act does provide grandfathering provisions upholding the rights of PAET under their PSA, it is still unclear how the provisions of the Petroleum Act will be interpreted and implemented regarding upstream and downstream activities. Depending on how provisions of the Act are interpreted, the ability of PAET to continue to market and sell Additional Gas could be impacted.

In addition to the Petroleum Act, the Company's business is subject to various levels of government controls and regulations which are revised from time to time. Orca is unable to predict what legislation may be proposed that might affect its business or when any such proposals, if enacted, might become effective. Such changes could

require increased capital and operating expenditures and could prevent or delay certain operations by the Company. To the extent the Company is unable to comply with any such legislation, whether in the future or past, the Company may be unable to continue to successfully operate in a particular location.

*Governmental policies currently allowing for foreign investment in the oil and gas industry may change*

Tanzania has generally maintained policies that enable Orca to invest in hydrocarbon development within the country. However, factors such as changes in administrations, increased nationalist sentiment and pressure to preserve development opportunities for local enterprises may result in a shift towards less favourable policies in Tanzania, which could have material adverse effects on Orca's business.

*The Company's ability to obtain cash from its foreign subsidiaries may be restricted*

The Company currently conducts all of its operations in Tanzania through its subsidiaries. Therefore, to the extent of these holdings, the Company will be dependent on the cash flows of these subsidiaries to meet its obligations. The ability of its subsidiaries to make payments to the Company may be constrained by, among other things: (i) the level of taxation, particularly corporate profits and withholding taxes, in the jurisdiction in which it operates; and (ii) the introduction of foreign exchange and/or currency controls or repatriation restrictions that impact the availability of hard currency to be repatriated. Changes in Tanzanian law or its interpretation that restrict the ability to repatriate funds from the Company's subsidiary may materially adversely affect Orca's business, results of operations or financial condition.

#### **Risks Associated with the Collectability of Receivables**

*Orca has been impacted by the inability of TANESCO to pay on time or at all, and there is a risk that TANESCO debts may increase or may not be recoverable*

The Company evaluates the collectability of its receivables on the basis of payment history, frequency and predictability, as well as Management's assessment of the customer's willingness and ability to pay. The Company have been impacted by TANESCO's inability to pay.

Amounts collected with respect to the long-term receivable in the future will be reflected in earnings when payment is received. Notwithstanding this provision, TPDC/PAET and TANESCO continue to operate in accordance with the terms of the PGSA whereby natural gas continues to be delivered by TPDC/PAET and TANESCO payments remain reasonably current on current deliveries. This provision against the TANESCO net long-term receivable will not prejudice the PAET's rights to payment in full or its ability to pursue collection in accordance with the terms of the agreement with TANESCO.

At December 31, 2016, TANESCO owed PAET US\$80.1 million excluding interest (of which arrears were US\$74.4 million) compared to US\$69.8 million (including arrears of US\$61.9 million) as at December 31, 2015. Since the year end PAET received a total of US\$12.9 million from TANESCO. Current TANESCO receivables as at December 31, 2016 amounted to US\$5.7 million. As at the date of this AIF the total TANESCO receivable is US\$74.4 million (of which US\$74.4 million has been provided for. The amounts owed do not include interest billed to TANESCO or invoices issued that do not meet IFRS revenue recognition criteria.

*Songas has also been impacted by TANESCO's inability to pay, and as a result has incurred material amounts of debt to the Company which may adversely affect the Company's financial position if not recovered*

As at December 31, 2016, Songas owed PAET US\$23.3 million, whilst PAET owed Songas US\$2.3 million. There is no contractual right to offset these amounts. Amounts due to Songas primarily relate to pipeline tariff charges of US\$1.9 million, whereas the amounts due to PAET are mainly for capital expenditures of US\$14.4 million, sales of gas of US\$2.2 million and for the operation of the gas plant of US\$6.6 million. The operation of the gas plant is conducted at cost and the charges are billed to Songas on a flow through basis on a "no profit, no loss" basis.

As at December 31, 2016, the net amount owed by Songas to PAET was US\$21.0 million. Although significant progress has been made in settling outstanding balances, a doubtful debt provision of US\$9.8 million is necessary recognizing the pending settlement of the remaining overdue operatorship charges and the Songas share of the well workover costs. Any significant amounts not agreed to will be pursued through the dispute resolution mechanisms provided in the agreements with Songas (including international arbitration).

*There is a risk that Orca will not be able to recover amounts owing to it in accordance with the Company's agreements and that other recovery methods will need to be pursued*

The "Tax Recoverable" figure carried on the balance sheet arises from the revenue sharing mechanism within the PSA which entitles PAET to recover from TPDC, by way of a deduction from TPDC's Profit Gas share, an amount "the adjustment factor" equal to the actual income taxes payable by PAET. Recovery, by offset against TPDC's share of revenue is dependent on payment of income taxes relating to prior period adjustment factors as they are assessed.

There is a risk that PAET may not be able to recover all or any of the outstanding TANESCO receivables, or that PAET may need to suspend its deliverables or initiate dispute resolution mechanisms in order to recover the TANESCO receivables. Any inability to collect on the TANESCO receivables and resulting actions by PAET to enforce its rights may materially adversely affect the operations, financial condition or results of operations of the Company.

### **Orca's Operational Dependence**

Other companies operate some of the assets in which the Company has an interest. As a result, the Company has limited ability to exercise influence over the operation of those assets or their associated costs, which could adversely affect the Company's financial performance. The Company's return on assets operated by others therefore depends upon a number of factors that may be outside of the Company's control, including the timing and amount of capital expenditures, the operator's expertise and financial resources, the approval of other participants, the selection of technology and risk management practices.

#### *Risks of Lack of Access to Songas Processing and Transportation*

While PAET operates the Songo Songo gas processing plant, Songas is the owner of plant and pipeline system which transports natural gas from Songo Songo to Dar es Salaam. PAET's ability to deliver gas to its customers in Dar es Salaam is entirely dependent upon it having access to the Songas infrastructure. Although there are agreements with Songas to allow PAET to process and transport gas, there is no assurance that these rights could not be challenged or curtailed by Songas. The inability to access the Songas plant and processing facilities would materially impair the Company's ability to realize revenue from natural gas sales. Should PAET not be able to access adequate capacity in the Songas infrastructure for any reason (including malfunctions), there is no other means by which PAET can transport its production to any potential purchasers until the Company has access to the NNGIP.

#### *Risk of interference with PAET's ability to complete sales of Additional Gas*

PAET has the right, under the terms of the PSA, to market volumes of Additional Gas subject to satisfying the requirements to deliver Protected Gas to Songas. There is a risk that Songas could interfere with PAET's ability to produce, transport and sell volumes of Additional Gas if PAET's obligations to Songas under the Gas Agreement are not met. In particular, Songas has the right to request reasonable security on all Additional Gas sales.

*Currently the natural gas market development in Tanzania is in its infancy and there is limited infrastructure with which to serve potential new markets beyond that being constructed by PAET, Songas or through the NNGIP*

The ability of Orca to market any natural gas from current or future reserves may depend upon its ability to develop natural gas markets in Tanzania and the surrounding region, obtain access to the necessary infrastructure to deliver sales gas volumes, including acquiring capacity on pipelines which deliver natural gas to commercial markets.

## **Risk Factors Related to the Loan Agreement**

### *Loan Agreement*

On 29 October 2015, the Company entered into a loan agreement (the "**Loan Agreement**") with IFC, a member of the World Bank Group for a US\$60 million investment (the "**Loan**") in the Company's operating subsidiary, PAET. Proceeds of the Loan have been used to fund the first phase of the Songo Songo Main Field development programme which was substantially completed on 19 February 2016.

*As the pay-if-you-can provisions in the Loan Agreement are limited and prescriptive, PAET may be unable to make the required payments to IFC, and may witness potential declines in revenues and reserves*

The pay-if-you-can ("**PIYC**") provisions in the Loan Agreement allow PAET to satisfy certain payment obligations by capitalising or deferring them. Typically such provisions would apply to interest payments, with a structure that would envisage the repayment of principal at maturity. Under the terms of the Loan Agreement, the PIYC provisions only allow base interest to be capitalised by PAET, and the payment of principal to be deferred. Such provisions do not apply to the payment of Participation Interest, the payment of the commitment fee (5% calculated on the undrawn amount) or the payment of other fees and expenses under the Loan Agreement. If PAET does not have sufficient cash to satisfy such payment obligations, a payment default could be triggered under the Loan Agreement. If a payment default occurs, IFC may require PAET to repay the IFC Loan in full or in part. Further, although the IFC Loan is then repayable, PAET's obligation to pay Participation Interest (and/or any related Liquidation Participation Interest Amount) survive such repayment until the earlier of the Participation Interest Maturity Date and the date upon which a Liquidity Event (as defined in the Loan Agreement) occurs.

Furthermore, under the Loan Agreement, a prescriptive test is used to determine whether or not PAET has sufficient cash available ("**Available Cash**") to satisfy its payment obligations in cash under the Loan Agreement or to capitalise or defer them pursuant to the PIYC provisions. Such test is based on cash in bank accounts as at a specific date (the "**Calculation Date**"), adjusted for accrued payables and receivables and a pre-agreed reserve of US\$7,500,000, which is lower than what management of PAET has historically considered to be a prudent reserve. Any additional reserves going above and beyond this pre-agreed test will require the prior consent of IFC. As future cash payments will be generated out of cash generated from operations, PAET's ability to make such payments is dependent on, among other factors, cash flows received from TANESO arising between the Calculation Date and the applicable payment date. If such payments from TANESCO are not received in a timely manner, there is a dual risk that (a) PAET may not have sufficient cash to satisfy such payment obligations on the applicable payment date, therefore triggering a payment default under the Loan Agreement, with the consequences as highlighted above, and (b) if PAET has sufficient cash to satisfy such payment obligations on the applicable payment date, it may see its reserves decline and may not have access to the capital necessary either to undertake or complete future drilling and exploration programs or to prevent a default on other of its obligations. There can be no assurance that other debt or equity financing (to the extent permitted under the Loan Agreement), or cash generated by operations will be available or sufficient to meet these requirements or for other corporate purposes or, if debt or equity financing is permitted and available, that it will be on terms acceptable to us. PAET's inability to access sufficient capital for our operations could have a material adverse effect on our business financial condition, results of operations and prospects.

*The Company's ability to finance our payments to IFC may be affected by the timing of receipt of payments from TANESCO and potential declines in our revenues and reserves*

The PIYC provisions in the Loan Agreement do not extend to the payment of Participation Interest, the payment of the commitment fee (5% calculated on the undrawn amount) or the payment of other fees and expenses under the Loan Agreement. If PAET does not have sufficient cash to satisfy such payment obligations, a payment default could be triggered under the Loan Agreement. If a payment default occurs, IFC may require PAET to repay the IFC Loan in full or in part. Further, although the IFC Loan is then repayable, PAET's obligation to pay Participation Interest (and/or any related Liquidation Participation Interest Amount) survive such repayment until the earlier of the Participation Interest Maturity Date and the date upon which a Liquidity Event (as defined in the Loan Agreement) occurs.

Of more significance is the payment of the Participation Interest, which is calculated as at 31 December in respect of any financial year then ended (the "**Participation Interest Calculation Date**"), but paid up-to one hundred sixty-five (165) days later on the Participation Interest Payment Date. As future cash payments will be generated out of cash generated from operations, PAET's ability to make such payments is dependent on, among other factors, cash flows received from TANESCO arising between the Participation Interest Calculation Date and the Participation Interest Payment Date. If such payments from TANESCO are not received in a timely manner, PAET may not have sufficient cash to satisfy such payment obligations on the Participation Interest Payment Date, therefore triggering a payment default under the Loan Agreement, with the consequences as highlighted above.

Further, if the Company's revenues or reserves decline, PAET may not have access to the capital necessary to undertake or complete future drilling and exploration programs or to prevent a default on other of its obligations. There can be no assurance that other debt or equity financing (to the extent permitted under the Loan Agreement), or cash generated by operations will be available or sufficient to meet these requirements or for other corporate purposes or, if debt or equity financing is permitted and available, that it will be on terms acceptable to the Company. The Company's inability to access sufficient capital for operations could have a material adverse effect on the business financial condition, results of operations and prospects.

*The restrictive covenants under the Loan Agreement and the discretion and determination rights granted to IFC could adversely affect the Company's financial condition and future operations, restrict ongoing operations and impair its ability to obtain additional financing*

The Loan Agreement contains restrictive covenants that may limit the Company's ability to engage in activities that may be in its long-term best interest. PAET's failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of all the IFC Loan. Such covenants could have important consequences to securityholders, including the following:

- increasing PAET's vulnerability to general adverse economic and industry conditions and limiting its flexibility in planning for and reacting to changes in the industry in which it competes;
- limiting the hedging activities that PAET is permitted to undertake to currency hedging only and limiting PAET's ability to purchase additional assets. This places PAET at a disadvantage as compared to its competitors and limits the Company's overall growth potential, as PAET will be prevented from purchasing any property or assets not associated with operations in the Songo Songo Gas Field; and
- pursuant to the Loan Agreement, PAET is unable to guarantee obligations of any of its subsidiaries (if, for example, the downstream operations are re-structured) or of Orca (if, as an example, Orca is party to a contract in connection with the Songo Songo Gas Field for the benefit of PAET, any PAET guarantee in connection therewith will result in a correspondence decrease in the cap of additional financial debt PAET may incur).

Under the Loan Agreement, IFC has also been granted subjective discretion and determination rights over a number of matters, which may affect our business, day to day operations and future growth opportunities. Such matters include, but are not limited to:

- the Company's auditors must be a firm of internationally recognised independent public accountants and acceptable to IFC;
- IFC has been provided with access to the Company's offices, books and records on a basis much broader than would apply in a standard commercial loan with no limit as to a maximum number of occasions per annum;
- IFC has the right to review and seek revisions to PAET's annual capital budget;

- PAET may pursue sale and lease back transactions at fair market value; however, IFC will decide what constitutes fair market value; and
- in the event of an damage to PAET's property, any insurance proceeds will be handed over to IFC, who then has discretion as to whether such proceeds should be applied towards the repair of such property or the repayment of the IFC Loan.

Further, as the Loan Agreement allows IFC to transfer the loan to a third party, such assignee will benefit from such discretion and determination rights, including discretion in agreeing to any amendment or waiver relating to departures from the restrictive covenants of the Loan Agreement.

*The Company may require additional financing in order to carry out oil and natural gas acquisition, exploration and development activities*

Orca's cash flow from reserves may not be sufficient to fund ongoing activities at all times, and from time to time the Company may require additional financing in order to carry out exploration and development activities. Under the Loan Agreement, PAET's ability to incur additional financial debt is capped at an amount equal to the last twelve months net funds flow from operating activities, which limits the Company's ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements. Therefore, there is risk that the Company may not be able to obtain additional financing, which could have a material adverse effect on business financial conditions, results of operations and prospects.

Further, even if the Company is able to obtain financing under the terms of the Loan Agreement, there is risk that if the economy or the banking industry experiences unexpected and/or prolonged deterioration, access to additional financing may be affected. Failure to obtain such financing on a timely basis could cause the Company to forfeit interests in certain properties, miss certain acquisition opportunities and reduce or terminate operations. If revenues from reserves decrease as a result of lower natural gas prices or otherwise, it will affect the Company's ability to expend the necessary capital to replace reserves or to maintain production. To the extent that external sources of capital become limited, unavailable, or available on onerous terms, the Company's ability to make capital investments and maintain existing assets may be impaired, and assets, liabilities, business, financial condition and results of operations may be affected materially and adversely as a result. In addition, the future development of our properties may require additional financing and there are no assurances that such financing will be available or, if available, will be available upon acceptable terms. Failure to obtain any financing necessary for capital expenditure plans may result in a delay in development or production on the Company's properties.

*The Company may not be able to generate sufficient cash to service all of its indebtedness, and may be forced to take other actions to satisfy obligations, which may not be successful*

PAET's ability to make scheduled payments under the Loan Agreement, depends on the Company's financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond Orca's control. The Company may be unable to maintain a level of cash flows from operating activities sufficient to permit the payment of the principal, premium, if any, and interest on indebtedness under the Loan Agreement.

If cash flows and capital resources are insufficient to fund obligations under the Loan Agreement, the Company could face substantial liquidity problems and could be forced to reduce or delay capital expenditures or to dispose of material assets or operations, seek additional debt or equity capital (to the extent permitted by the Loan Agreement) or restructure or refinance the indebtedness under the Loan Agreement. Such alternative measures, if necessary, may not be available on commercially reasonable terms or at all and, even if successful, those alternative actions may not allow the Company to meet scheduled debt service obligations under the Loan Agreement. The Loan Agreement restricts the Company's ability to dispose of assets and use the proceeds from those dispositions. The Company may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any obligations then due under the Loan Agreement. The inability to generate sufficient cash flows to satisfy obligations under the Loan Agreement would materially and adversely affect the Company's financial position and results of operations,

as IFC could terminate their commitments to loan money and the Company could be forced into bankruptcy or liquidation.

*All of the undertakings in the Loan Agreement will survive termination of such agreement*

Under the Loan Agreement, all of the undertakings provided by PAET will survive the repayment or prepayment of the loan until 2026. For example, if the loan is prepaid in full in 4 years (other than pursuant to a business combination resulting in a Liquidity Event (as defined in the Loan Agreement)), all of PAET's business would continue to be subject to all restrictions in the Loan Agreement, including restrictions on developing new businesses, incurring debt, and buying or selling assets until the Participation Interest Maturity Date, which could have a significant effect on our future operations and prospects.

*IFC may transfer its rights under the Loan Agreement to one or more third parties*

Under the Loan Agreement, IFC may transfer its right to a third party without the consent of PAET. There is a risk to PAET that such transfer may result in withholding taxes being payable by PAET and such withholding taxes may be substantial. There is no guarantee that PAET will have the available cash to satisfy its obligations to pay such taxes.

Further, there is a risk that IFC may transfer its rights under the Loan Agreement to a competitor of PAET, which could have a significant impact on future operations.

*The Share Retention Deed could reduce the likelihood of a take-over bid or other acquisition of Orca by a third party*

David Lyons is the beneficial controlling shareholder of Orca and indirectly holds approximately 99.6% of the outstanding Class A Common Voting Shares and approximately 16.5% of the Class B Subordinated Shares. Consequently, Lyons is the beneficial holder of approximately 59.3% of the total voting rights of Orca. Under the terms of the Share Retention Deed, Lyons may not, and will cause the Trustee not to, until all of the indebtedness owing the Loan has been repaid or otherwise satisfied in full, transfer any of the shares, if after giving effect to such transfer, Lyons would beneficially own or control or direct, directly or indirectly, voting securities of Orca representing less than 51% of the aggregate voting rights attaching to the voting securities of Orca, subject to certain exceptions. Such exceptions to this covenant include a transfer of the shares from the Trustee directly to Lyons or to another trust maintained for the benefit of Lyons, a transfer by operation of law, or a transfer that is consented to in writing by IFC.

Lyons is not permitted to tender such shares to a take-over bid for Orca or pursuant to a transaction whereby a third party may purchase all of the shares of Orca unless, as a result, such person or group of persons acting in concert acquire the power to cast, or control the casting of, more than 50% of the maximum number of votes that might be cast at a general meeting of Orca, thereby triggering a Liquidity Event (pursuant to which the IFC Loan becomes automatically repayable in full, together with a premium equal to a certain percentage of the acquisition proceeds, or otherwise unless the IFC Loan has been repaid in full or IFC has consented to such transfer, all of which could materially affect our future operations and prospects.

*Failure by Lyons to meet his contractual obligations under the Share Retention Deed may adversely affect the Company's business and financial condition*

PAET may be exposed to financial risk through Lyons' contractual arrangements with IFC pursuant to the terms of the Share Retention Deed. In the event Lyons fails to meet his contractual obligations under the Share Retention Deed, such failure may have a material adverse effect on the Company's business, financial condition and results of operations, as a default under the Share Retention Deed would also constitute an "Event of Default" under the Loan Agreement. If an Event of Default occurs, IFC may require PAET to repay the IFC Loan in full or in part. Further, although the IFC Loan is then repayable, PAET's obligation to pay Participation Interest (and/or any related Liquidation Participation Interest Amount) survive such repayment until the earlier of the Participation Interest Maturity Date and the date upon which a Liquidity Event (as defined in the Loan Agreement) occurs.

## **Weakness in Oil and Gas Prices and Markets**

The Company's financial condition, operating results and future growth will be dependent on the prevailing prices for its natural gas production. Natural gas prices often fluctuate widely, and recent market events and conditions, including global excess oil and natural gas supply, recent actions taken by the Organization of the Petroleum Exporting Countries ("OPEC"), slowing growth in China and other emerging economies, market volatility and disruptions in Asia, and sovereign debt levels in various countries, have caused significant weakness and volatility in commodity prices. These events and conditions have caused a significant decrease in the valuation of oil and gas companies and a decrease in confidence in the oil and gas industry.

Lower commodity prices may also affect the value of the Company's reserves as certain reserves become uneconomic. In addition, lower commodity prices may restrict the Company's cash flow resulting in a reduced capital expenditure budget. As a result, the Company may not be able to replace its production with additional reserves and both the Company's production and reserves could be reduced on a year over year basis. Any decrease in value of the Company's reserves may reduce the borrowing base under its credit facilities, which, depending on the level of the Company's indebtedness, could result in the Company having to repay a portion of its indebtedness.

Given the current market conditions and the lack of confidence in the oil and gas industry, the Company may have difficulty raising additional funds or if it is able to do so, it may be on unfavourable and highly dilutive terms. Any substantial decline in the prices of oil and natural gas could have a material adverse effect on Orca and the level of its natural gas reserves. Additionally, the economics of producing from some wells may change as a result of lower prices, which could result in a suspension of production by the Company.

*Prolonged weakness of commodity prices may negatively impact Orca's ability to operate profitably*

Oil and natural gas prices are expected to remain volatile for the near future because of market uncertainties over the supply and the demand of these commodities due to the current state of the world economies, OPEC actions, sanctions imposed on certain oil producing nations by other countries and ongoing credit and liquidity concerns. Volatile oil and natural gas prices make it difficult to estimate the value of producing properties for acquisitions and often cause disruption in the market for oil and natural gas producing properties, as buyers and sellers have difficulty agreeing on such value. Price volatility also makes it difficult to budget for and project the return on acquisitions and development and exploitation projects. Prolonged weakness in natural gas prices could negatively impact the liquidity and/or credit ratings of the Company. No assurance can be given that oil and natural gas prices will be sustained at levels which will enable the Company to operate profitably.

## **General Operational Risks**

Developing oil and gas resources inherently involves a high degree of risk. The business of Orca is subject to all of the operating risks normally associated with the exploration for, and the production, storage, transportation and marketing of oil and gas. These risks include blowouts, explosions, fire, gaseous leaks, migration of harmful substances and oil spills, any of which could cause personal injury, result in damage to, or destruction of, oil and gas wells or formations or production facilities and other property, equipment and the environment, as well as interrupt operations. In addition, all of Orca's operations will be subject to the risks normally incident to drilling of natural gas wells and the operation and development of gas properties, including encountering unexpected formations or pressures, premature declines of reservoirs, blowouts, equipment failures and other accidents, sour gas releases, uncontrollable flows of oil, natural gas or well fluids, adverse weather conditions, pollution and other environmental risks.

*Risks associated with drilling new wells*

Orca's future success depends on their exploration, development and production activities. These activities are subject to many risks. Orca can provide no assurance that new wells drilled and completed will be productive or that the Company will recover all or any portion of their investment in such wells. Drilling for hydrocarbons often involves unprofitable efforts, including wells that do not produce or that do not produce economically. The technologies used in drilling operations do not allow the Company to know conclusively prior to drilling whether a

well will produce economically. Further, drilling or operations may be delayed, canceled or otherwise negatively impacted as a result of other factors, including unusual geological formations, equipment malfunctions and shortages or delays in equipment or services. Any of these risks can cause substantial losses, including personal injury or loss of life, damage to or destruction of property, pollution, environmental contamination or loss of wells and other penalties.

*There is a risk that Orca will encounter losses or liabilities and that Orca will not carry sufficient, or any, insurance covering these losses or liabilities*

Drilling conducted by Orca overseas will involve increased drilling risks of high pressures and mechanical difficulties, including stuck pipe, collapsed casing and separated cable. The impact that any of these risks may have upon Orca is increased due to the fact that Orca currently only has one producing property. If any of these events were to occur, they could result in environmental damage, injury to persons and loss of life, a failure to produce oil or gas in commercial quantities or significant delays or shutdowns in operations. Orca will maintain insurance against some, but not all, potential risks; however, there can be no assurance that such insurance will be adequate to cover any losses or exposure for liability. The occurrence of a significant unfavourable event not fully covered by insurance could have a material adverse effect on Orca's financial condition, results of operations and cash flows. Furthermore, Orca cannot predict whether insurance will continue to be available at a reasonable cost or at all.

### **Risks due to Asset Concentration**

The Company's natural gas reserves are currently limited to one producing property, the Songo Songo field. Any difficulties relating to the operation or performance of the field would have a material adverse effect on the Company. There will be no redundant capacity in the facility or pipeline until the Company can tie existing wells and the SS-12 well into the NNGIP facilities. A loss or material reduction in the production of any given well will have a material adverse effect on the total production and funds flow from operations of the Company. The Italian licenses in which the Company has an interest are currently in the exploration phase of their cycle and it may be several years before the Company is able to obtain a revenue stream from these assets. If operations in Tanzania are interrupted for any reason, the Company may be left with no producing assets, materially adversely affecting its business, results of operations and financial condition.

### **Risks Relating to the Availability of Additional Financing**

*Orca's future success may depend on its ability to attain additional financing*

Future capital expenditures will be financed out of funds generated from operations, borrowings and possible future equity sales. The Company's ability to do so is dependent on, among other factors, the performance of the Company and its investments, the overall state of capital markets and investor appetite for investments in the energy industry and the Company's securities in particular. From time to time Orca may enter into transactions to acquire assets or the shares of other companies. These transactions may be financed partially or wholly with debt, which may temporarily increase Orca's debt levels above industry standards. Additionally, Orca's ability to obtain financing may be impaired by the terms of the Loan Agreement (see *Risk Factors Related to the Loan Agreement* above).

Based on current funds available and expected results of operations, the Company believes it has sufficient funds available to fund its continued operations. To expand the productive capacity of its Songo Songo asset with the drilling of Songo Songo North and/or the appraisal of Songo Songo West, depending on the timing, the Company may require significant additional capital. In addition, if capital costs for these projects exceed current estimates, or if the Company incurs major unanticipated expenses related to development or maintenance of its existing properties, it may be required to seek further additional capital to maintain its capital expenditures at planned levels. Failure to obtain any financing necessary for the Company's capital expenditure plans may result in a delay in development or production on the Company's properties. There can be no assurance that Orca will be successful in its efforts to arrange additional financing in amounts sufficient to meet the Company's goals or requirements, or on terms that are acceptable to Orca. If additional financing is raised by the issuance of shares from treasury of Orca, control of Orca may change and shareholders may suffer additional dilution.

*Orca's access to capital may be negatively impacted by TANESCO's inability to pay*

Although the Company's asset base has not materially changed, the uncertainties caused by the TANESCO non-payments and global volatility in the oil and gas market have introduced significant risk among both lenders and in equity capital markets in assessing the Company's business in Tanzania. Accordingly, the Company's access to debt and equity financing has been materially impaired and is likely to continue to be impaired until the Company can resolve these issues.

To the extent that external sources of capital become limited or unavailable or available on onerous terms, the Company's ability to make capital investments and maintain existing assets may be impaired, and its assets, liabilities, business, financial condition and results of operations may be materially and adversely affected as a result.

### **Risks Relating to the Amended and Restated Gas Agreement**

The Gas Agreement may be superseded by the final execution of the ARGA. The unsigned ARGA provides clarification of the Protected Gas volumes and removes all terms dealing with the security of the Protected Gas, and contract terms dealing with the consequences of any insufficiency are dealt with in a new Insufficiency Agreement ("IA"). The IA specifies terms under which Songas may demand cash security in order to keep it whole in the event of a Protected Gas insufficiency. Should the IA be signed, it will govern the basis for determining security. Under the provisional terms of the IA, when it is calculated that funding is required, PAET is required to fund an escrow account at a rate of US\$2.00/MMBtu on all Industrial Additional Gas sales out of its and TPDC's share of revenue, and TANESCO shall contribute the same amount on Additional Gas sales to the power sector. The funds provide security for Songas in the event of an insufficiency of Protected Gas. The Company is actively monitoring the reservoir and, supported by the report of its independent engineers, does not anticipate that a liability will occur in this respect. As at the date of this AIF, the ARGA remains an initialed agreement only, however in many respects the parties thereto are conducting themselves as though the ARGA is in full force and effect. Management does not foresee at this time a material risk with the conduct of the Company's business with an unsigned ARGA and does not foresee a material risk if and when the ARGA is signed.

### **Uncertainties in Estimating Reserves and Future Net Cash Flows**

There are numerous uncertainties inherent in estimating quantities of proved and probable reserves and cash flows to be derived therefrom, including many factors beyond the control of the Company. The reserve and cash flow information contained herein represents estimates only. The reserves and estimated future net cash flow from the Company's properties have been independently evaluated by McDaniel & Associates Consultants Ltd. These evaluations include a number of assumptions relating to factors such as initial production rates, production decline rates, ultimate recovery of reserves, timing and amount of capital expenditures, marketability of production, crude oil price differentials to benchmarks, future prices of oil and natural gas, operating costs, transportation costs, cost recovery provisions and royalties, TPDC "back-in" methodology and other government levies that may be imposed over the producing life of the reserves.

*Actual reserves are likely to vary from reserve estimates*

Estimates of the economically recoverable oil and natural gas reserves attributable to any particular group of properties, classification of such reserves based on risk of recovery and estimates of future net revenues associated with reserves may vary from actual results, and those variations could be material. The process of estimating reserves requires interpretations and judgments on the part of petroleum engineers, resulting in imprecise determinations, particularly with respect to new discoveries. Different engineers may make different estimates of reserve or resource quantities and revenues attributable thereto based on the same data.

The reserve evaluation is based in part on the assumed success of activities the Company intends to undertake in future years. The reserves and estimated cash flows to be derived therefrom and contained in the reserve evaluation will be reduced to the extent that such activities do not achieve the level of success assumed in the reserve

evaluation. The reserve evaluation is effective as of a specific effective date and, except as may be specifically stated, has not been updated and therefore does not reflect changes in the Company's reserves since that date.

The estimation of proved reserves that may be developed and produced in the future are often based upon probabilistic calculations and upon analogy to similar types of reserves rather than upon actual production history. Estimates based on these methods generally are less reliable than those based on actual production history. Subsequent evaluation of the same reserves based upon production history may result in variation or revisions in the estimates reserves, and any such variations or revisions could be material. Market price fluctuations of commodity prices may render the recovery of certain reserves uneconomic.

### **Risk of Inability to Maintain or Replace Reserve Levels**

Orca's natural gas reserves and production and, therefore, its cash flows and earnings are highly dependent upon Orca developing and increasing its current reserve base and discovering or acquiring additional reserves. Without the addition of reserves through exploration, acquisition or development activities, Orca's reserves and production will decline over time as reserves are depleted. To the extent that cash flow from operations is insufficient and external sources of capital become limited or unavailable, Orca's ability to make the necessary capital investments to maintain and expand its oil and natural gas reserves will be impaired. There can be no assurance that Orca will be able to find and develop or acquire additional reserves to replace production at commercially feasible costs.

### **Risks Associated with Future Acquisitions**

Orca's business strategy contemplates future acquisitions of natural gas infrastructure and possibly additional oil and gas properties. Although Orca performs a review of the acquired properties that it believes is consistent with industry practices, such reviews are inherently incomplete. It generally is not feasible to review in depth every individual property involved in each acquisition. Ordinarily, Orca will focus its due diligence efforts on the higher valued properties and will sample the remainder. However, even an in depth review of all properties and records may not necessarily reveal existing or potential problems, nor will it permit a buyer to become sufficiently familiar with the properties to fully assess their deficiencies and capabilities. Inspections may not be performed on every well, and structural or environmental problems, such as ground water contamination, are not necessarily observable even when an inspection is undertaken. Orca may be required to assume pre closing liabilities, including environmental liabilities, and may acquire interests in properties on an "as is" basis. There can be no assurance that Orca's acquisitions will be successful. Any inability to acquire assets or interests may result in reduced production and may materially adversely affect Orca's results of operations and financial condition.

### **Risk of Defective Title to Properties**

Although title reviews have been done and will continue to be done according to industry standards prior to the purchase of most oil and natural gas producing properties or the commencement of drilling wells, such reviews do not guarantee or certify that an unforeseen defect in the chain of title will not arise to defeat the claim of the Company which could result in a reduction of the revenue received by the Company.

### **Competition Risks**

The petroleum industry is competitive in all its phases. The Company competes with numerous other organizations in the search for, and the acquisition of, oil and natural gas properties and in the marketing of oil and natural gas. The Company's competitors include oil and natural gas companies that have substantially greater financial resources, staff and facilities than those of the Company. The Company's ability to increase its reserves in the future will depend not only on its ability to explore and develop its present properties, but also on its ability to select and acquire other suitable producing properties or prospects for exploratory drilling. Competitive factors in the distribution and marketing of oil and natural gas include price and methods and reliability of delivery and storage. Competition may also be presented by alternate fuel sources (see *Alternatives to and Changing Demand for Petroleum Products* below).

*Increased competition in Tanzania may pose a threat to Orca's ability to market its products in the country*

There has been an increase in exploration activity in Tanzania, which has yielded significant discoveries of natural gas that could, when developed, lead to increased competition for gas markets and lower gas prices in the future. In addition, various factors, including the availability and capacity of oil and gas gathering systems and pipelines, the effect of foreign regulation of production and transportation, general economic conditions, changes in supply due to drilling by other producers and changes in demand may adversely affect the Company's ability to market its gas production.

*Orca may be affected by the inability to respond to changing technical development*

The petroleum industry is characterized by rapid and significant technological advancements and introductions of new products and services utilizing new technologies. Other companies may have greater financial, technical and personnel resources that allow them to enjoy technological advantages and may in the future allow them to implement new technologies before the Company. There can be no assurance that the Company will be able to respond to such competitive pressures and implement such technologies on a timely basis or at an acceptable cost. One or more of the technologies currently utilized by the Company or implemented in the future may become obsolete. If the Company is unable to utilize the most advanced commercially available technology, its business, financial condition and results of operations could also be adversely affected in a material way.

### **Reputational Risk**

Due to the Company's asset concentration, the Company's operations are dependent on positive relationships with a small number of organizations (including the government of Tanzania). Damage to Orca's reputation within Tanzania due to the actual or perceived occurrence of any number of events could negatively impact the Company. Reputation loss may lead to increased challenges in developing and maintaining community relations, decreased investor confidence, and the impediment of the Company's overall ability to advance its projects, thereby having a material adverse impact on financial performance, cash flows and growth prospects.

### **Risks Associated with Climate Change and Related Legislation**

Climate change policy is evolving at national and international levels, and political and economic events may significantly affect the scope and timing of climate change measures that are ultimately put in place. Tanzania is a signatory to the *United Nations Framework Convention on Climate Change* (the "UNFCCC") and to the *Paris Agreement*. As a participant under these agreements, the Government of Tanzania has stated its intention to limit and reduce greenhouse gas emissions within the country. These greenhouse gas emission reduction targets are not binding. Although it is not the case today, Orca may ultimately be subject to future regional, national or international climate change regulations to manage greenhouse gas emissions. The direct or indirect costs of compliance with these regulations may have a material adverse effect on the business, financial condition, results of operations and prospects of Orca. Any such regulations could also increase the cost of consumption, and thereby reduce demand for Orca's products. Given the evolving nature of regulation related to climate change, it is not possible to predict the impact on Orca and its operations of financial condition.

In addition, there has been public discussion that climate change may be associated with extreme weather conditions. Extreme weather conditions can interfere with Orca's production and increase its costs or cause losses that may not be insured. At this time it is not possible to predict the extent to which any such events may impact the business or operations of Orca.

### **Risks Relating to Environmental and Other Regulations**

Extensive national, state, and local environmental laws and regulations in foreign jurisdictions will affect nearly all of the Company's operations. These laws and regulations set various standards regulating certain aspects of health and environmental quality, provide for penalties and other liabilities for the violation of such standards and establish in certain circumstances obligations to remediate current and former facilities and locations where operations are or were conducted. In addition, special provisions may be appropriate or required in environmentally sensitive areas of operation. There can be no assurance that Orca will not incur substantial financial obligations in connection with environmental compliance. Significant liability could be imposed on Orca for damages, cleanup costs or penalties

in the event of certain discharges into the environment, environmental damage caused by previous owners of property purchased by Orca or non compliance with environmental laws or regulations. Such liability could have a material adverse effect on Orca. Moreover, Orca cannot predict what environmental legislation or regulations will be enacted in the future or how existing or future laws or regulations will be administered or enforced. Compliance with more stringent laws or regulations, or more vigorous enforcement policies of any regulatory authority, could in the future require material expenditures by Orca for the installation and operation of systems and equipment for remedial measures, any or all of which may have a material adverse effect on Orca. As party to various licenses, Orca has an obligation to restore producing fields to a condition acceptable to the authorities at the end of their commercial lives. The PSA does not contain abandonment obligations for the Company. In addition, the Company expects the Songo Songo field to produce well beyond the term of the current license.

While management believes that the Company is currently in compliance with environmental laws and regulations applicable to Orca's operations in Tanzania and Italy, no assurances can be given that Orca will be able to continue to comply with such environmental laws and regulations without incurring substantial costs.

The Company's petroleum and natural gas operations are subject to extensive governmental legislation and regulation and increased public awareness concerning environmental protection.

In accordance with the terms of the PSA, no provision has been recognized for future decommissioning costs which are anticipated to be immaterial as it is forecast that there will still be commercial gas reserves once Orca relinquishes the licence in 2026. Orca expects that the cost of complying with environmental legislation and regulations will increase in the future. Compliance with existing environmental legislation and regulations has not had a material effect on capital expenditures, earnings or competitive position of Orca to date. Although management believes that Orca's operations and facilities are in compliance with such laws and regulations in all material respects, future changes in these laws, regulations or interpretations thereof or the nature of its operations may require the Company to make significant additional capital expenditures to ensure compliance in the future.

### **Risks Related to Alternatives to and Changing Demand for Petroleum Products**

Full conservation measures, alternative fuel requirements, increasing consumer demand for alternatives to oil and natural gas and technological advances in fuel economy and energy generation devices could reduce the demand for oil, natural gas and other liquid hydrocarbons. The Company cannot predict the impact of changing demand for oil and natural gas products, and any major changes may have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

### **Litigation and Dispute Risks**

Orca may become involved in disputes with other parties in the future which may result in arbitration or litigation. The results of any future disputes cannot be predicted with certainty, and the Company may be subject to the exclusive jurisdiction of foreign bodies in settling these disputes. The costs of defending or settling these disputes may be significant. If the Company is unable to resolve these disputes favorably, it may have a material adverse impact on Orca's financial performance, cash flow and results of operations.

Although the agreements in relation to Songo Songo all require international arbitration if there is a dispute in connection with operations in Tanzania, the Company could still become subject to the jurisdiction of courts or arbitration tribunals in Tanzania or may not be successful in subjecting persons or government entities to the jurisdiction of the arbitrators or another country. There can be no assurance that if the Company becomes involved in a dispute in Tanzania that it will be dealt with in a satisfactory manner or in a way in which the Company expects. The delay or results of such dispute settlement could have a material adverse effect on the Company, its business, prospects, results of operations and financial condition.

In November 2011 Tanzanian parliament passed a resolution advising the government to terminate the company's Songo Songo PSA on the grounds of an allegation by TPDC that PAET had over recovered approximately US\$21 million in cost gas revenue. In response to a notice of dispute delivered by the company in March 2014, TPDC retracted the allegation. In the opinion of management, the retraction exonerated PAET and to this date, no further

action has been taken by parliament or the government against the company related to the allegations. Accordingly, PAET continues to rely upon its rights under the existing PSA and has initiated notices of dispute to resolve any remaining issues with historic cost pool audits. In the event that these disputes are not resolved, the Company may seek to enforce its interests through arbitration.

### **Reliance on Key Personnel**

Orca is highly dependent upon its executive officers and key personnel. The unexpected loss of the services of any of these individuals could have a detrimental effect on Orca. Orca does not maintain key life insurance on any of its employees or officers. There is no guarantee that the Company will retain members of its management team, and if the Company were to lose a member of its management team unexpectedly, its business, prospects, financial condition and results of operations may be adversely affected.

### **Controlling Shareholder**

Orca's business and affairs are indirectly controlled by W. David Lyons, the Company's Chairman and Chief Executive Officer, through the right to direct the votes attaching to approximately 99.6% of the outstanding Class A Common Voting Shares and approximately 16.5% of the Class B Subordinated Shares which represent in aggregate approximately 59.3% of the total votes of the Company. Accordingly, Mr. Lyons has the ability to exercise a significant influence over the business and affairs and generally has the power to determine all matters submitted to a vote of our shareholders where our shares vote together as a single class. Mr. Lyons may make decisions regarding Orca and its business that are opposed to other shareholders' interests or with which other shareholders may disagree.

Mr. Lyons may be able to cause the Company to effect corporate transactions without the consent of our other shareholders. Mr. Lyons is also able to cause or prevent a change in our control. Under present law, any offer to purchase our Class A Common Voting Shares, whether by way of a public offer or private transaction and regardless of the offered price, would not necessarily result in an offer to purchase our Class B Subordinated Shares. Accordingly, holders of our Class B Subordinated Shares do not have a right to participate if a takeover bid is made for our Class A Common Voting Shares.

Mr. Lyons has the power to elect Orca's directors and his approval is required for significant corporate transactions such as amendments to our articles of incorporation, the sale of all or substantially all of our assets and plans of arrangement. The directors so elected have the authority, subject to applicable laws, to appoint or replace senior management, cause the Company to issue or repurchase additional subordinate or multiple voting shares, declare dividends or take other actions. The interests of Mr. Lyons may differ from the interests of the remaining holders of voting shares.

### **Market Price of Common Shares**

The trading price of securities of oil and natural gas issuers is subject to substantial volatility often based on factors related and unrelated to the financial performance or prospects of the issuers involved. Factors unrelated to the Company's performance could include macroeconomic developments, domestic and global commodity prices or current perceptions of the oil and gas market. Similarly, the market price of the common shares of the Company could be subject to significant fluctuations in response to variations in the Company's operating results, financial condition, liquidity and other internal factors. Accordingly, the price at which the common shares of the Company will trade cannot be accurately predicted.

### **Information Technology Systems and Cyber-Security**

The Company has become increasingly dependent upon the availability, capacity, reliability and security of our information technology infrastructure and our ability to expand and continually update this infrastructure, to conduct daily operations. The Company depends on various information technology systems to estimate reserve quantities, process and record financial data, manage our land base, analyze seismic information, administer our contracts with our operators and lessees and communicate with employees and third-party partners.

Further, the Company is subject to a variety of information technology and system risks as a part of its normal course operations, including potential breakdown, invasion, virus, cyber-attack, cyber-fraud, security breach, and destruction or interruption of the Company's information technology systems by third parties or insiders. Unauthorized access to these systems by employees or third parties could lead to corruption or exposure of confidential, fiduciary or proprietary information, interruption to communications or operations or disruption to our business activities or our competitive position. Further, disruption of critical information technology services, or breaches of information security, could have a negative effect on our performance and earnings, as well as on our reputation. The Company applies technical and process controls in line with industry-accepted standards to protect our information assets and systems; however, these controls may not adequately prevent cyber-security breaches. The significance of any such event is difficult to quantify, but may in certain circumstances be material and could have a material adverse effect on the Company's business, financial condition and results of operations.

#### **AUDIT COMMITTEE INFORMATION**

National Instrument 52-110 – *Audit Committees* requires the Company, as a venture issuer, to disclose in its AIF certain information concerning the constitution of its audit committee and its relationship with its independent auditor in accordance with Form 52-110F2.

The Company's Audit Committee Information in the form of NI 52-110F2, was the information under the heading "Audit Committee Information" included in Orca's management information circular and proxy statement dated May 3, 2016, which was filed on Orca's SEDAR profile at [www.sedar.com](http://www.sedar.com) on 17 May 2016 and is incorporated by reference into this AIF.

#### **Exemption**

As the Company is listed on the TSXV, it is relying on the exemption in Section 6.1 of NI 52-110 and it is exempt from the requirements of Part 5 (Reporting Obligations) of NI 52-110.

#### **ADDITIONAL INFORMATION**

Additional information relating to the Company can be found on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information, including directors' and officers' remuneration and indebtedness, principal holders of securities and securities authorized for issuance under our equity compensation plans is contained in the Information Circular for the Company's most recent annual meeting of securityholders that involved the election of directors. Additional financial information about us is provided in our financial statements and management's discussion and analysis for the year ended 31 December 2015 and may be found on SEDAR at [www.sedar.com](http://www.sedar.com).