

# **Canadian Oil Sands**

**Invested In Our Energy Future**

**CANADIAN OIL SANDS LIMITED**

**ANNUAL INFORMATION FORM**

**For the Year Ended December 31, 2012**

**February 21, 2013**

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## GLOSSARY

**“1506627”** means 1506627 Alberta Ltd.;

**“ABCA”** means the *Business Corporations Act* (Alberta), R.S.A. 2000, c. B-9, as amended from time to time, including the regulations promulgated thereunder;

**“AENV”** means Alberta Environment;

**“AEPEA”** means *Environmental Protection and Enhancement Act* (Alberta);

**“AESRD”** means Alberta Environment and Sustainable Resource Development, the successor to AENV;

**“AEUB”** means Alberta Energy Utilities Board;

**“Alberta Crown Agreement”** means the agreement dated as of February 4, 1975, and originally made between Her Majesty the Queen in Right of Alberta, Her Majesty the Queen in Right of Canada, Ontario Energy Corporation, Imperial Oil Limited, Canada-Cities Service, Ltd. and Gulf Oil Canada Limited, as amended;

**“Amended Royalty Agreement”** means the Syncrude Royalty Amending Agreement dated November 18, 2008 between Her Majesty the Queen in Right of Alberta and the Syncrude Participants;

**“AOSII”** means Athabasca Oil Sands Investments Inc.;

**“AOSPL”** means Alberta Oil Sands Pipeline Limited;

**“bitumen”** in its raw state, is a heavy oil. It is a naturally occurring viscous mixture, mainly containing hydrocarbons heavier than pentane, which is not recoverable at a commercial rate in its naturally occurring viscous state through a well without using enhanced recovery methods. When extracted, bitumen can be upgraded into crude oil and other petroleum products;

**“Canadian Arctic”** means Canadian Arctic Gas Ltd.;

**“Canadian Oil Sands”, “COS”, “us”, “we” or “our”** means collectively the Corporation and all subsidiaries and partnerships of the Corporation;

**“coker”** means a vessel in which bitumen is cracked into light fractions and coke is withdrawn to start the conversion process of bitumen to upgraded crude oil;

**“Common Shares”** means the common shares in the capital of the Corporation;

**“Corporate DRIP”** means the Premium Dividend, Dividend Reinvestment and Optional Share Purchase Plan of the Corporation made as of December 31, 2010;

**“Corporation”** means Canadian Oil Sands Limited, the continuing corporation resulting from the amalgamation of 1506633 Alberta Ltd. and COSL on December 31, 2010 pursuant to the Plan of Arrangement;

**“COSII”** means Canadian Oil Sands Investments Inc.;

**“COSL”** means Canadian Oil Sands Limited, the continuing corporation resulting from the amalgamation of AOSII, COSII and Old COSL on January 1, 2003;

**“COSMI”** means Canadian Oil Sands Marketing Inc.;

**“COSP”** means Canadian Oil Sands Partnership #1, a general partnership formed under the laws of the Province of Alberta;

**“conventional crude oil”** means crude oil produced through wells by standard industry recovery methods for the production of crude oil;

**“cracking”** means a process which breaks large, complex hydrocarbon molecules into smaller, simpler compounds by means of heat (as in the case of a coker) or by means of catalytic hydrogen addition (as in the case of the LC finer);

**“Crown royalty”** or **“Crown royalties”** means the payments to be made to the Province of Alberta pursuant to the Amended Royalty Agreement or under the generic Crown royalty scheme;

**“crude oil”** means unrefined liquid hydrocarbons, excluding natural gas liquids;

**“Directive 074”** means Tailings Directive 074 (Tailings Performance Criteria and Requirements for Oil Sands Mining Schemes) of the ERCB;

**“double roll crusher”** means a large unit which crushes the oil sand and deposits the crushed oil sand on to a conveyor;

**“ERCB”** means the Energy Resources Conservation Board of Alberta, the successor to the AEUB;

**“extraction”** means the process of separating bitumen from oil sand;

**“fluid fine tailings”** are produced as a result of the extraction of bitumen from oil sand and consist of water, suspended fine clay particles and small amounts of residual hydrocarbon;

**“Imperial Oil”** means Imperial Oil Resources, a Syncrude Participant;

**“joint venture”** means an economic activity resulting from a contractual arrangement whereby two or more participants jointly control the economic activity;

**“MD&A”** means our management’s discussion and analysis for the year ended December 31, 2012;

**“MLX Project”** means the proposed mine extension project at Syncrude’s Mildred Lake mine;

**“MSA”** means the Management, Business and Technical Services Agreement dated November 1, 2006 between SCL and Imperial Oil and amended and restated as of May 1, 2007;

**“naphtha”** means a light fraction of crude oil used to make gasoline;

**“Northward”** means Northward Developments Ltd., the company formed to provide housing for certain SCL employees;

**“oil sand(s)”** is comprised of sand, bitumen, mineral rich clays and water;

**“Old COSL”** means Canadian Oil Sands Limited, prior to the amalgamation with AOSII and COSII;

**“overburden”** means material overlying oil sand that must be removed before mining, consisting of muskeg, glacial deposits and sand;

***“Ownership and Management Agreement”*** means the Ownership and Management Agreement dated February 4, 1975 among the Syncrude Participants and SCL, as amended;

***“Plan of Arrangement”*** means the plan of arrangement in respect of the Reorganization;

***“Reorganization”*** means the arrangement effected on December 31, 2010 under section 193 of the ABCA pursuant to which the Trust effectively converted from an income trust to a corporate structure, on the terms and conditions set forth in the Plan of Arrangement;

***“residuum”*** means the fraction of bitumen that remains after the light ends have been distilled;

***“SCL”*** means Syncrude Canada Ltd., the operator of the Syncrude Project which is owned by the Syncrude Participants;

***“SCO”*** means the synthetic crude oil produced by Syncrude;

***“SER”*** means Syncrude Emissions Reduction project, a project whose purpose focuses on mitigating an environmental impact by reducing sulphur dioxide and other emissions from the business;

***“Shareholders”*** means the holders of the Common Shares of the Corporation;

***“Syncrude”*** means, collectively, the Syncrude Joint Venture and the Syncrude Project;

***“Syncrude Bitumen Royalty Option Agreement”*** means the Syncrude Bitumen Royalty Option Agreement dated November 18, 2008 between Her Majesty the Queen in Right of Alberta and the Syncrude Participants;

***“Syncrude Joint Venture”*** means the joint venture formed by the Syncrude Participants for the purpose of governing the Syncrude Project;

***“Syncrude Participants”*** or ***“Participants”*** means COSP (36.74 per cent), Imperial Oil Resources (25 per cent), Suncor Energy Ventures Partnership (12 per cent), Sinopec Oil Sands Partnership (9.03 per cent), Nexen Oil Sands Partnership (7.23 per cent), Mocal Energy Limited (5 per cent) and Murphy Oil Company Ltd. (5 per cent), as the corporations or partnerships that own the undivided interests in the Syncrude Project and their respective successors and assigns in interest from time to time;

***“Syncrude Plant”*** means all of the plant and facilities owned by the Syncrude Participants and operated by SCL located at Mildred Lake and Aurora, approximately 40 kilometres north of Fort McMurray, Alberta, where upgrading of bitumen occurs along with the plants and facilities owned by the Syncrude Participants and operated by SCL located at the Aurora site approximately 35 kilometres north of Mildred Lake;

***“Syncrude Project”*** means (a) the scheme for recovery of oil sands, crude bitumen or products derived therefrom originally approved in Approval No. 1920 and currently approved in Approval Nos. 8573 and 10781, all as issued by the ERCB or the AEUB or their predecessors, as such scheme may be amended or superseded from time to time, (b) all property now owned or hereafter acquired or developed by the owners participating from time to time in such scheme or by SCL on their behalf in connection with such scheme, (c) the oil sands leases related to such scheme, and (d) any other scheme or schemes implemented for the purpose of recovering oil sands, crude bitumen or products derived from those oil sands leases related to such scheme or schemes and all property acquired or developed in connection with such scheme or schemes;

***“synthetic crude oil”*** means the crude oil produced by the Alberta oil sands industry, including SCO;

***“total volume to bitumen in place (TV:BIP)”*** means the ratio of total ore plus overburden volume to total bitumen in place;

***“Trust”*** means Canadian Oil Sands Trust, which was terminated pursuant to the Reorganization;

***“Trust DRIP”*** means the Premium Distribution, Distribution Reinvestment and Optional Unit Purchase Plan of the Trust made as of January 23, 2002, as amended;

***“TSX”*** means the Toronto Stock Exchange;

***“Unitholders”*** means the holders of the Units of the Trust;

***“Units”*** means the trust units of the Trust; and

***“upgrading”*** means the conversion of heavy bitumen into a lighter crude oil by increasing the hydrogen to carbon ratio, either through the removal of carbon (coking) or the addition of hydrogen (hydroprocessing).

## UNITS

<b>API</b>	A measure of specific gravity
<b>Bbl</b>	Barrel
<b>bbls/d or bpd</b>	Barrels per day
<b>gj or GJ</b>	Gigajoule
<b>MW</b>	Megawatt
<b>Tcf</b>	Trillion cubic feet equivalent of natural gas

### Notes:

Unless otherwise specified:

- (1) all information is as at December 31, 2012; and
- (2) all dollar amounts are expressed in Canadian dollars, all references to “dollars” or “\$” are to Canadian dollars and all references to “\$U.S.” are to United States dollars.

## NON-GAAP AND ADDITIONAL GAAP FINANCIAL MEASURES

In this Annual Information Form (“AIF”), we refer to financial measures that do not have any standardized meaning as prescribed by Canadian generally accepted accounting principles (“GAAP”). These financial measures include additional GAAP financial measures (which are line items, headings or subtotals in addition to those required under Canadian GAAP) and non-GAAP financial measures. Additional GAAP and non-GAAP financial measures provide additional information that we believe is meaningful regarding the Corporation’s operational performance, its liquidity and its capacity to fund dividends, capital expenditures and other investing activities. Users are cautioned that additional GAAP and non-GAAP financial measures presented by the Corporation may not be comparable with measures provided by other entities. We refer to one additional GAAP financial measure: cash flow from operations, which is calculated as cash from operating activities, as reported on the Consolidated Statements of Cash Flows, before changes in non-cash working capital. Non-GAAP financial measures include cash flow from operations per Common Share, which is calculated as cash flow from operations divided by the weighted-average number of Common Shares outstanding in the period and various per barrel figures, such as net realized selling prices, operating expenses and Crown royalties, which also are considered non-GAAP measures. We derive per barrel figures by dividing the relevant sales or cost figure

by our sales volumes, which are net of purchased crude oil volumes in a period. For more information on non-GAAP and additional GAAP financial measures please refer to our MD&A.

### **FORWARD-LOOKING INFORMATION ADVISORY**

In the interest of providing Shareholders and potential investors of Canadian Oil Sands with information regarding Canadian Oil Sands, including the Corporation's assessment of Canadian Oil Sands' future plans and operations, certain statements throughout this AIF contain "forward-looking statements" under applicable securities laws. Forward-looking statements are typically identified by words such as "anticipate", "expect", "believe", "plan", "intend" or similar words suggesting future outcomes.

Forward-looking statements contained in this AIF include, but are not limited to statements with respect to: the estimated value and amount of reserves recoverable and the time frame to recover such reserves; the estimated resources; the estimated amount of total capital expenditures, estimated completion percentages and anticipated target in-service dates for the Mildred Lake mine train replacements, the Aurora North mine train relocations, the composite tails plant at the Aurora North mine and the centrifuge plant at the Mildred Lake mine; the belief that centrifuge technology is an effective solution for meeting Syncrude's requirements of its plan submitted under Directive 074; the expectation that the MLX project should extend the life of mining operations at Mildred Lake by about a decade; the expectations regarding the timing of construction and spending for the MLX Project; the expectation that the MLX Project should enable Syncrude to access a large bitumen source at a cost that is expected to be significantly lower than the cost of a new mine; the estimated amount of spending for the mine train relocations/replacements and tailings management initiatives in 2013; the estimated amount of regular maintenance costs in 2013; the estimation that the Aurora North composite tails plant should be complete in 2013; the estimation that the Aurora North mine train relocations should be 90 per cent complete after 2013; the estimation that the Mildred Lake mine train replacements should be 75 per cent complete after 2013; the belief that capital spending will significantly taper off after the majority of the spending on the mine train relocations/replacements and the tailings management initiatives is completed after 2014; the timing of the Aurora South development; the 2013 Syncrude production outlook of 110 million barrels (40.4 million barrels net to Canadian Oil Sands); the belief that the SER Project will contribute to a 60 per cent reduction in sulphur dioxide emissions from current approved levels; the belief that the SER project will reduce particulate emissions; the expected realized selling price, which includes the anticipated differential to West Texas Intermediate ("WTI") crude oil, to be received for SCO; the belief that the mine train relocations/replacements will not impact production; the cost savings and efficiencies from wet crushing technology; the expectations regarding inflation and labour in the Wood Buffalo Region; the anticipated impact that certain factors such as natural gas and oil prices, foreign exchange rates and operating expenses have on the Corporation's cash flow from operations and net income; the energy consumption levels for 2013 and beyond; the expectations regarding refining demand for SCO; the expectations regarding where SCO will be consumed in the future; the expectations regarding pipeline apportionment and pipeline capacity; the impact of increased supplies of crude oil, refining demand for SCO, pipeline and rail access and capacity, market access and price differentials on the realized selling price that Canadian Oil Sands receives for SCO; the level of natural gas consumption; the expected impact of any announced or future environmental or climate change laws and regulation; Crown royalties payable in the future; intentions and expectations regarding future dividend levels, including our intention to pay a quarterly dividend of \$0.35 per Common Share for 2013, based on the assumptions in our 2013 outlook; the establishment of future dividend levels with the intent of absorbing short-term market volatility over several quarters; the expectation that the Corporation will finance the major projects primarily with cash flow from operations and existing cash balances; all expectations regarding current taxes, the expected benefits of the management services agreement; the expectations regarding the use of proceeds from the offering of 2012 Senior Notes; and Syncrude's expected compliance costs for the Specified Gas Emitters Regulation in 2013.



You are cautioned not to place undue reliance on forward-looking statements, as there can be no assurance that the plans, intentions or expectations upon which they are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, estimates, forecasts, projections and other forward-looking statements will not occur. Although Canadian Oil Sands believes that the assumptions and expectations represented by such forward-looking statements are reasonable and reflect the current views of Canadian Oil Sands with respect to future events, there can be no assurance that such assumptions and expectations will prove to be correct.

The factors or assumptions on which the forward-looking information is based include, but are not limited to: the assumptions outlined in the Corporation's guidance document as posted on the Corporation's website at [www.cdnoilsands.com](http://www.cdnoilsands.com) from time to time, including without limitation, the assumptions as to production, operating expenses and oil prices; the successful and timely implementation of capital projects; Syncrude's major project spending plans; the ability to obtain regulatory and Syncrude joint venture owner approval; our ability to either generate sufficient cash flow from operations to meet our current and future obligations or obtain external sources of debt and equity capital; the continuation of assumed tax, royalty and regulatory regimes and the accuracy of the estimates of our reserves and resources volumes.

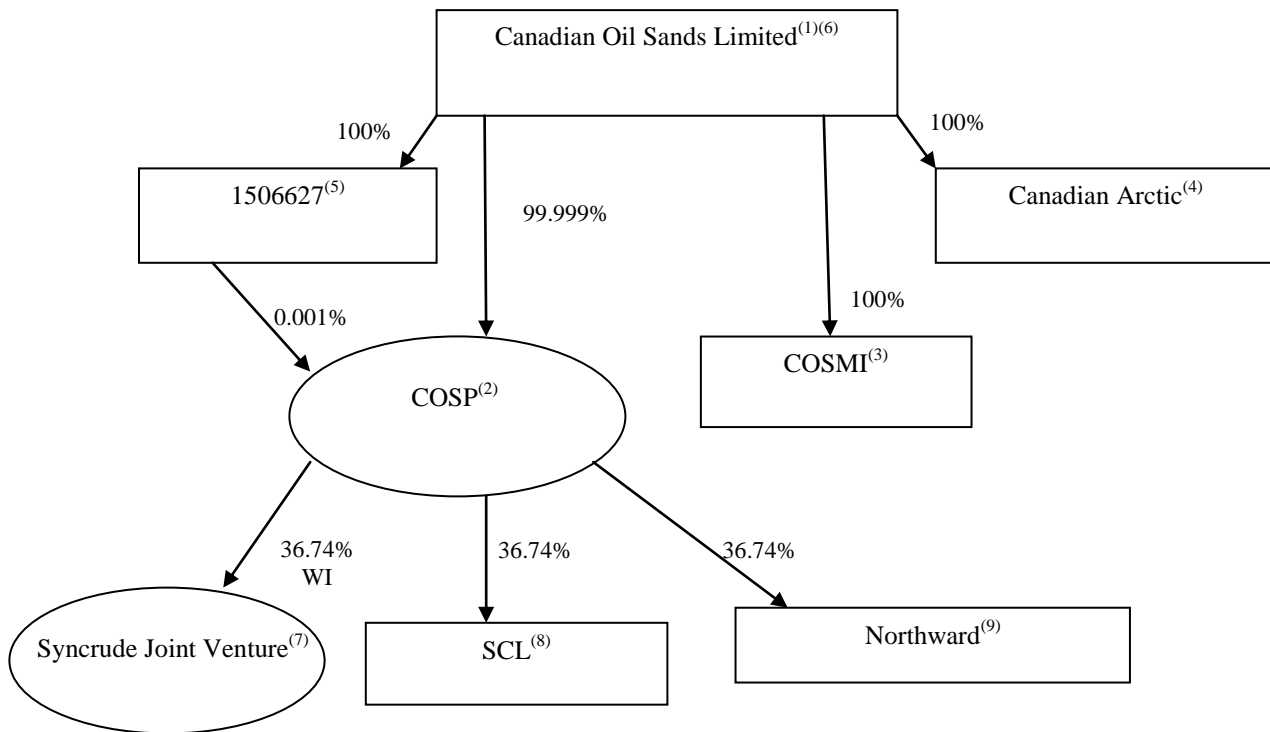
Some of the risks and other factors which could cause actual results or events to differ materially from current expectations expressed in the forward-looking statements contained in this AIF include, but are not limited to: the impacts of regulatory changes especially those which relate to royalties, taxation and the environment; the impact of technology on operations and processes and how new complex technology may not perform as expected; labour turnover and shortages and the productivity achieved from labour in the Fort McMurray area; uncertainty of estimates with respect to reserves and resources; the supply and demand metrics for oil and natural gas; the impact that pipeline capacity and apportionment and refinery demand have on prices for our products; the variances of stock market activities generally; the obtaining of required owner approvals from the Syncrude Participants for expansions, operational issues and contractual issues; the normal risks associated with litigation, regulatory changes and sanctions; volatility of crude oil and natural gas prices; volatility of the SCO to WTI differential; market competition; Canadian Oil Sands' ability to either generate sufficient cash flow from operations to meet our current and future obligations or obtain external sources of debt and equity capital; the inability of the Corporation to continue to meet the listing requirements of the TSX; the inability of Syncrude to obtain required consents, permits or approvals; the impact of Syncrude being unable to meet the conditions of its approval for its tailings management plan under Directive 074; general economic, business and market conditions; various events which could disrupt operations including fires, equipment failures and severe weather; unsuccessful or untimely implementation of capital or maintenance projects and such other risks and uncertainties described in this AIF and in the reports and filings made with securities regulatory authorities from time to time by the Corporation which are available on the Corporation's profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on the Corporation's website at [www.cdnoilsands.com](http://www.cdnoilsands.com).

You are cautioned that the foregoing list of important factors is not exhaustive. Furthermore, the forward-looking statements contained in this AIF are made as of the date of this AIF and unless required by law, Canadian Oil Sands does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise. The forward-looking statements contained in this AIF are expressly qualified by this cautionary statement.

## ORGANIZATIONAL STRUCTURE

### Canadian Oil Sands Structure

The following diagram sets forth the current organizational structure of Canadian Oil Sands:



#### Notes:

- (1) The Corporation is a publicly traded entity whose Common Shares are listed for trading on the TSX under the symbol "COS". The Corporation is a corporation amalgamated under the ABCA.
- (2) COSP carries on the crude oil marketing function in Canada and directly owns the working interest in Syncrude. The Corporation is the managing partner of COSP.
- (3) COSMI carries on the crude oil marketing function in the United States.
- (4) Canadian Arctic holds certain Arctic natural gas interests in Canada.
- (5) 1506627 is a partner of COSP.
- (6) The registered and head office of the Corporation is located at 2500 First Canadian Centre, 350 – 7th Avenue S.W., Calgary, Alberta T2P 3N9.
- (7) The joint venture formed by the Syncrude Participants for the purpose of governing the Syncrude Project.
- (8) The operator of the Syncrude Project, which is owned by the Syncrude Participants in the same proportions as their interest in the Syncrude Joint Venture.
- (9) The corporation formed to provide housing for certain SCL employees, which is owned by the Syncrude Participants in the same proportions as their interest in the Syncrude Joint Venture.

## Intercorporate Relationships

The following table provides the name, the percentage of voting securities beneficially owned, or controlled or directed, directly or indirectly and the jurisdiction of incorporation, continuance or formation of the Corporation's material subsidiary and partnership as at February 21, 2013.

	<b>Percentage of Voting Securities</b>	<b>Jurisdiction of Incorporation/ Formation</b>
COSP <sup>(1)</sup>	100%	Alberta
COSMI <sup>(2)</sup>	100%	Alberta

### Notes:

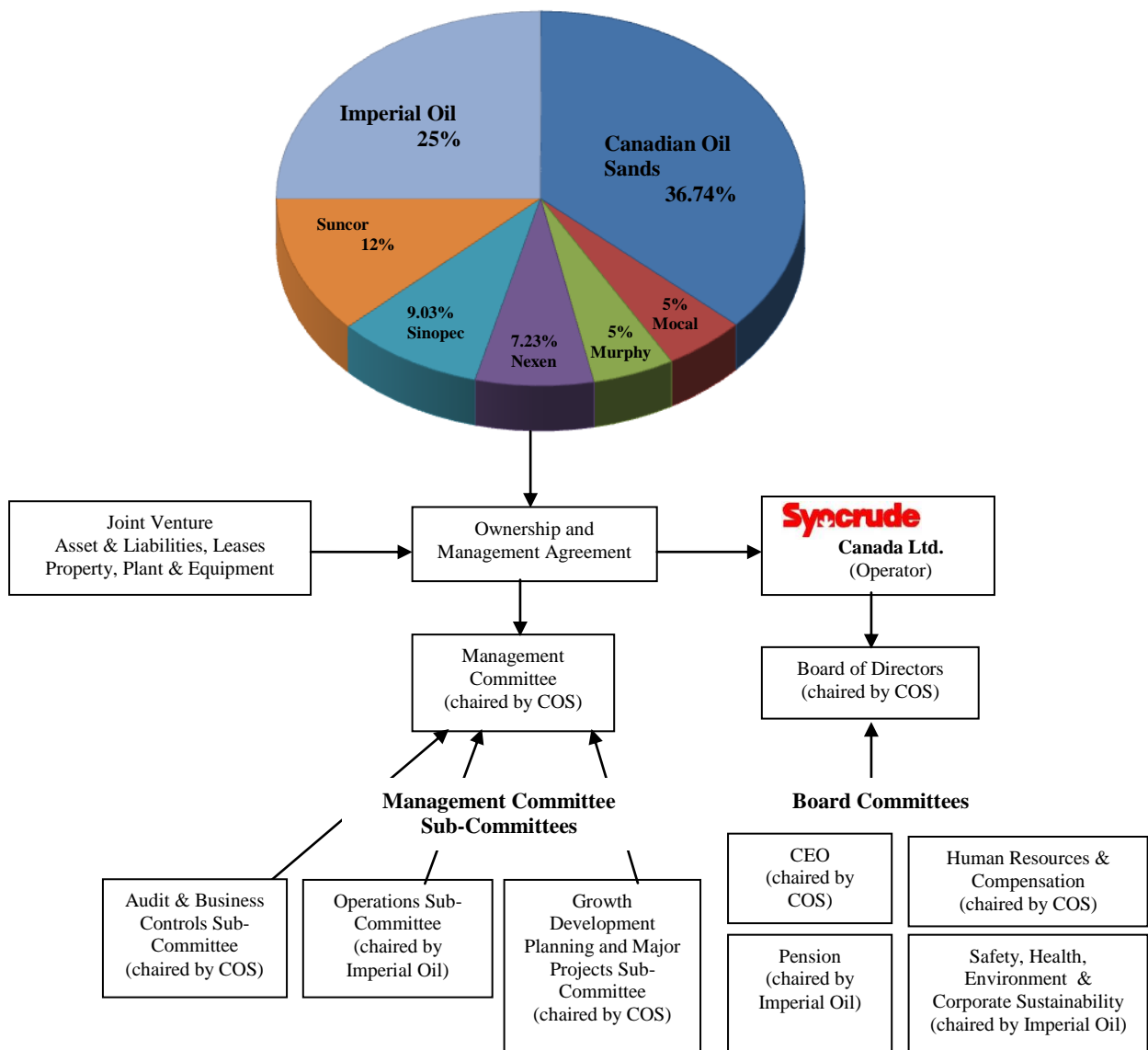
- (1) The total assets of COSP constituted more than 10 per cent of the consolidated assets of the Corporation at December 31, 2012 and the total revenues of COSP constituted more than 10 per cent of the consolidated revenues of the Corporation for the year-ended December 31, 2012.
- (2) The total assets of COSMI were less than 10 per cent of the consolidated assets of the Corporation at December 31, 2012 and the total revenues of COSMI constituted more than 10 per cent of the consolidated revenues of the Corporation for the year-ended December 31, 2012.

## GENERAL DEVELOPMENT OF THE BUSINESS

### Overview

We are the only public investment vehicle that provides a non-diversified ownership interest in Syncrude, a large oil sands open-pit integrated mining project. Syncrude is located near Fort McMurray, Alberta, Canada and operates oil sands mines, bitumen extraction plants, an upgrading complex that processes bitumen into a synthetic crude oil and utility plants. Syncrude produces a single high quality, light, sweet synthetic crude oil blend, referred to as "Syncrude™ Sweet Premium", which has an average gravity of about 32° API, low sulphur content of less than 0.2 per cent, a diesel cetane number of approximately 40 and a jet fuel smoke point of approximately 19 millimeters. We use the term "SCO" to refer to Syncrude's production and sales volumes. The Corporation's business is its indirect ownership of Syncrude and the marketing and sales of SCO derived from such ownership, as well as other products related to such Syncrude interest.

The Syncrude Joint Venture is owned as various undivided interests by the Syncrude Participants and has produced SCO for over 30 years. The assets of the Syncrude Joint Venture are operated and managed by SCL, which is owned by the Syncrude Participants in the same proportions as their interest in the Syncrude Joint Venture. SCL is a single purpose company that employs the SCL workforce and holds its retirement plans but has no significant tangible or capital assets. The Syncrude Management Committee governs the Syncrude Joint Venture and each Participant nominates a representative to the committee, which is charged with making decisions and setting the strategic direction for the operation of the Syncrude Joint Venture.



## Canadian Oil Sands Three Year History

Significant developments that have affected Canadian Oil Sands' business in the last three years include the following:

### *Major Projects*

- In 2011 and 2012 Canadian Oil Sands and the other Syncrude Participants authorized and approved major capital projects at Syncrude relating to mine train relocations/replacements and tailings management initiatives that will require significant capital expenditures in 2013 and 2014. Please see pages 12 to 14 of this AIF for a description of these major projects.

### ***Senior Notes***

- On March 29, 2012, the Corporation issued US\$400 million of 4.5 per cent and US\$300 million of 6.0 per cent unsecured Senior Notes (the “2012 Senior Notes”) under a private offering memorandum in the United States and Canada. The Corporation intends to use the net proceeds from the offering to repay the principal amount of its US\$300 million 5.8 per cent Senior Notes, which mature on August 15, 2013, to fund major capital projects over the next few years and for general corporate purposes.

### ***Shelf Prospectus***

- On August 11, 2011, the Corporation filed a short form base shelf prospectus qualifying an aggregate amount of up to \$2.5 billion of Common Shares, preferred shares, debt securities, warrants, subscription receipts or units. On August 18, 2011, the Corporation filed a prospectus supplement to the short form base shelf prospectus for up to \$2.5 billion in unsecured Medium Term Notes (the “2011 Medium Term Notes”). No securities have been issued to date under either the base shelf or the supplemental prospectus.

### ***Reorganization***

- On December 31, 2010, Canadian Oil Sands completed its reorganization from an income trust structure into a corporate structure with the result that the Trust was terminated and the business of the Trust was carried on through the Corporation. Pursuant to the Reorganization, the Corporation and COSL amalgamated and all outstanding Units were exchanged on a one-for-one basis for Common Shares.

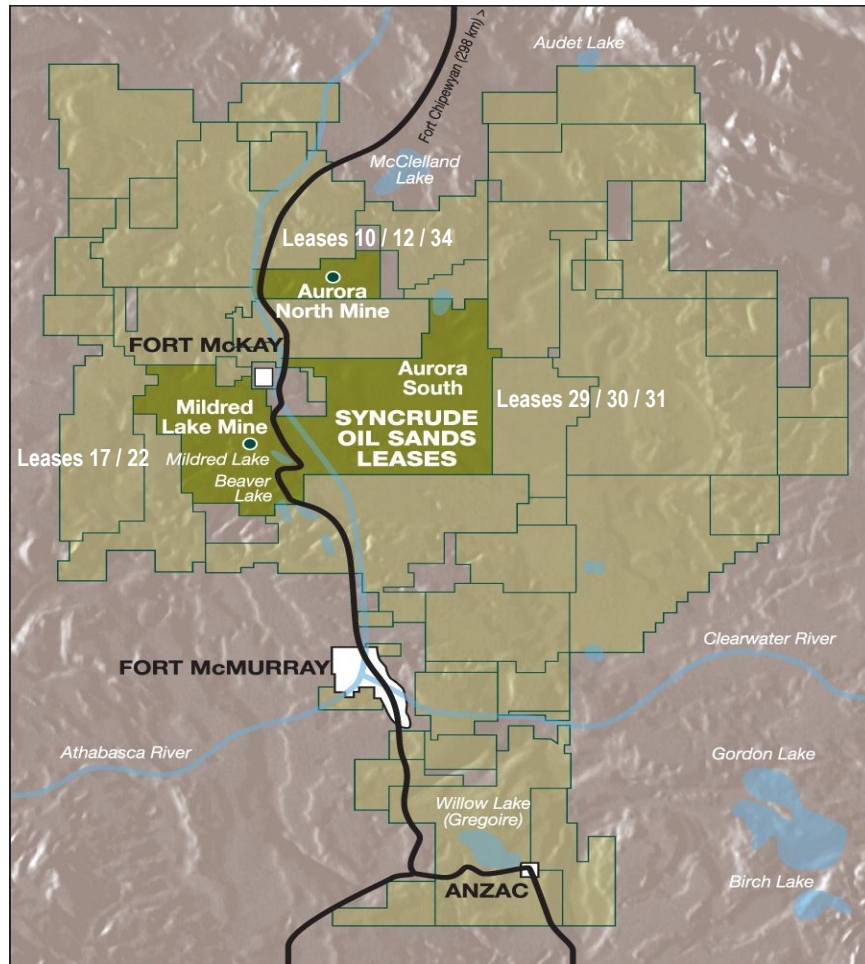
Pursuant to the Reorganization, all outstanding options and performance grants of the Trust were converted, at the same number and on substantially the same terms, into options and performance grants of the Corporation. In addition, the Trust assigned its Trust DRIP and all associated agreements to the Corporation. The Corporation amended and restated such agreements so that the Trust DRIP continued in effect as the Corporate DRIP. Former Unitholders who were enrolled in the Trust DRIP at the effective date of the Reorganization will continue to be enrolled in the Corporate DRIP in respect of their Common Shares upon the exchange of their Units for Common Shares. Shareholders will not be entitled to receive any dividends under the Corporate DRIP though until they have exchanged their Units for Common Shares.

In connection with the Reorganization, the Corporation’s interest in the Syncrude Joint Venture was transferred to COSP and COSP took over the marketing function in Canada previously carried on by COSL. COSP has no employees or officers of its own and instead contracts certain management, operational and administrative services from the Corporation.

### ***Syncrude Overview***

Syncrude produces SCO from the Athabasca oil sands deposits by surface mining the oil sands, extracting the bitumen from the sands, upgrading the recovered bitumen into lighter oil fractions and combining those component fractions into a single SCO product. Bitumen, in its raw state, is a thick crude oil that requires diluent and/or upgrading in order to make it transportable by pipeline and more useable to refineries across Canada and the United States. All of Syncrude’s production is upgraded.

The Athabasca oil sands deposits are vast and the Syncrude leases contained in such deposits are illustrated in the following lease map. The reserves and resources estimates on pages 39 to 48 of this AIF are all considered to be recoverable through surface mining, meaning that the layers of oil sands are found beneath a relatively shallow overburden layer.



**Notes:**

- (1) Mildred Lake Mine includes the North Mine and the Base Mine. The Base Mine reserves have been depleted. Current operations are located in the North Mine.
- (2) The dark green leases represent the Syncrude oil sands leases and the light green leases represent the leases of other oil sands operators.

Syncrude and other developers of the Athabasca oil sands have pioneered various technologies to mine the oil sands, extract the bitumen and upgrade the bitumen into synthetic crude oil. Syncrude engineers and scientists continue to focus on technologies to improve the energy efficiency of the various processes, improve the quality of the finished product, improve bitumen extraction recovery efficiencies and upgrading yield efficiencies, lessen the environmental impact of the various steps in the process and accelerate the reclamation of disturbed areas. Some examples of technological advancement include: low energy extraction, which is intended to reduce the amount of energy required to recover each barrel of bitumen and to reduce emissions; slurry hydrotransport, which is a process that uses pumping of an oil sands/water mixture rather than conveying solids with a view to reducing maintenance and operating expenses in the material handling area and froth pumping, which is a way of pumping bitumen slurried with water rather than with hydrocarbon-based diluents, once again intended to reduce capital, energy and operating expenses. The Mildred Lake mine train replacements currently under construction are designed to incorporate wet crushing technologies, which are intended to improve bitumen recovery rates and reduce maintenance costs. The centrifuge plant at the Mildred Lake mine will use mechanical energy to speed up the separation of water and fines releasing water for reuse and producing a trafficable deposit that can be placed in a designated disposal area creating a dry landscape.

## **Syncrude Three Year History**

Significant developments/investments that have affected the business and operations of Syncrude in the last three years include the following:

### ***Proposed Mildred Lake Mine Extension Project***

On October 1, 2012, Canadian Oil Sands announced that Syncrude will embark upon the MLX Project.

- The MLX Project will leverage current investments in the replacement of the two mine trains at the Mildred Lake mine, and will be integrated with existing environmental infrastructure to access nearby bitumen deposits on Syncrude leases. The project is expected to enable Syncrude to access a large bitumen source at a cost that is expected to be significantly lower than the cost of a new mine. The proposed project should extend the life of mining operations at Mildred Lake by about a decade.
- Project scoping is currently underway, and pending regulatory approval, construction and spending would be expected to commence in the next 10 years.

### ***Mildred Lake Tailings Management***

In 2012, Canadian Oil Sands and the other Syncrude Participants authorized and approved spending on Syncrude's centrifuge plant at the Mildred Lake mine:

- Syncrude is constructing a centrifuge plant as part of its government-regulated tailings plan. Syncrude has piloted centrifuge technology, compared it to alternative methods for processing tailings and believes centrifuge technology is an effective solution for meeting the requirements of its plan submitted under Directive 074. Centrifuge technology produces a soft, clay-rich soil that can be used in Syncrude's reclamation efforts.
- The total cost of the centrifuge plant is estimated to be \$1.9 billion (+/- 15%) to Syncrude (\$0.7 billion (+/-15%) net to the Corporation). The centrifuge plant is estimated to be in-service in 2015.
- As at December 31, 2012, the centrifuge plant was estimated to be 10 per cent complete (based on hours spent as a percentage of total forecasted hours to project completion).

### ***Mine Train Replacements/Relocations***

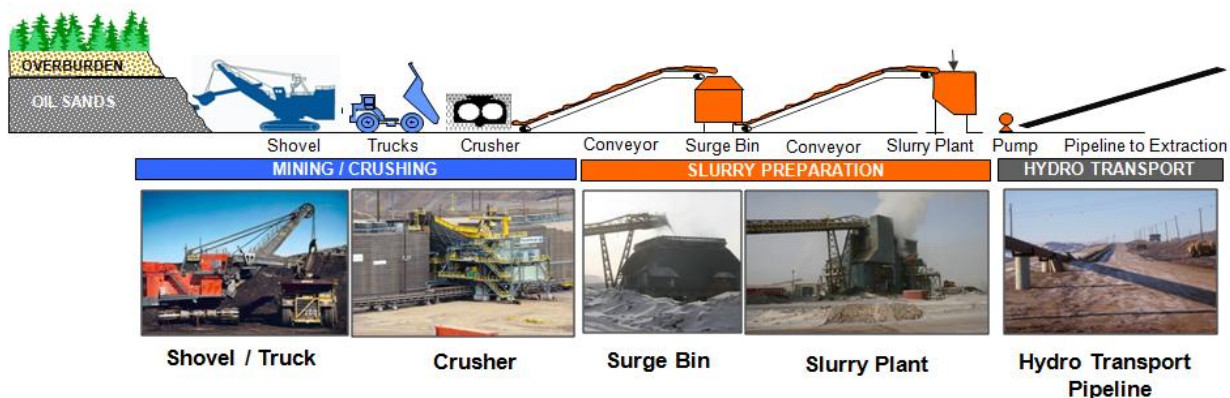
In 2011, Canadian Oil Sands and the other Syncrude Participants authorized and approved spending on Syncrude's mine train relocations and replacements:

- Syncrude operates five mine trains on its active leases, four of which will be replaced or relocated by the end of 2014 to sustain a stable, efficient foundation for future bitumen production. Once the relocations and replacements have been completed, the mine trains are expected to be in operation in their new locations until the Mildred Lake and Aurora North mines are fully depleted with no further moves required. The relocations and replacements are necessary to support mine development plans and for the placement of consolidated tailings in pit.
- At Syncrude's Mildred Lake mine site, the two existing mine trains will be dismantled and new mine trains will be constructed at a new location. The construction of these mine trains will incorporate Syncrude's new wet crushing technology, which is intended to improve bitumen

recovery and lower maintenance requirements. The total cost of the mine train replacements is estimated to be \$4.2 billion (+/- 15%) to Syncrude (\$1.6 billion (+/-15%) net to the Corporation). The mine trains are estimated to be in-service in the fourth quarter of 2014.

- At the Aurora North mine site, there are three mine trains. These mine trains were designed to be relocated as required. This is a much less capital intensive project than the new mine train construction required at Mildred Lake where the more permanent design does not allow a similar equipment move. The total cost of the mine train relocations is estimated to be \$1.0 billion (+/- 15%) to Syncrude (\$0.4 billion (+/-15%) net to the Corporation). The mine trains are estimated to be in-service in the first quarter of 2014.
- Production rates are not anticipated to be impacted by the Mildred Lake mine train replacements because the new mine trains are expected to be operational before the existing mine trains are decommissioned. Production rates are also not anticipated to be impacted by the Aurora North mine train relocations because the facility has three mine trains but only operates two mine trains at any given time so each mine train will be moved while the other two mine trains are operating.
- As at December 31, 2012, the Mildred Lake mine train replacements were estimated to be 35 percent complete and the Aurora North mine train relocations were estimated to be 55 per cent complete (based on hours spent as a percentage of total forecasted hours to project completion).

### ***Mine Train***



### ***Aurora North Tailings Management***

In 2011, Canadian Oil Sands and the other Syncrude Participants authorized and approved spending on Syncrude's Aurora North tailings management project:

- The Aurora North tailings management project involves the construction of a composite tails plant at Syncrude's Aurora North mine. A similar plant is operational at the Mildred Lake mine. This project is one component of Syncrude's government-regulated tailings plan. A composite tails plant mixes fluid fine tailings with gypsum and coarse tailings sand to transform the fluid fine tailings into solid material suitable for reclamation.
- The total cost estimate of the composite tails plant is estimated to be \$0.8 billion (+/-15%) to Syncrude (\$0.3 billion (+/-15%) net to the Corporation). The composite tails plant is estimated to be in-service in the fourth quarter of 2013.
- As at December 31, 2012, the composite tails plant was estimated to be 70 per cent complete (based on hours spent as a percentage of total forecasted hours to project completion).



### ***Aurora South***

- In 2011, the Syncrude Participants resolved to defer production from the undeveloped Aurora South leases into the 2020s or later depending on the progression of the MLX Project. The Syncrude Participants remain focused on profitably developing production over the long term. Our proved plus probable reserves represent just over 40 years of production based on our 2013 Syncrude production outlook of 110 million barrels (40.4 million barrels net to Canadian Oil Sands). Beyond that, we have contingent and prospective resources that can be developed.

### ***SER Project***

- In 2006, Syncrude commenced the SER project. The SER project was completed in 2012 at the total cost of \$1.6 billion to Syncrude (\$0.6 billion net to the Corporation). It is designed to contribute to a 60 per cent reduction in sulphur dioxide emissions from current approved levels once the project is fully operational. Emissions of particulate matter are also expected to decline considerably. Once operational, all of Syncrude's cokers will be equipped with technology to capture emissions of sulphur dioxide and particulates. The SER project is currently in start-up and commissioning.

### **Capital Investments in 2013**

Significant investments that are estimated to affect the business and operations of the Corporation and Syncrude in 2013 include the following:

- Canadian Oil Sands plans to spend \$570 million on the mine train relocations/replacements.
- Canadian Oil Sands plans to spend \$266 million for tailings management initiatives comprising \$83 million for the Aurora North tailings management project and \$183 million for the centrifuge plant at the Mildred Lake mine.
- Canadian Oil Sands estimates that Syncrude will complete the Aurora North tailings management project, achieve 90 per cent completion on the Aurora North mine train relocations and achieve 75 per cent completion on the Mildred Lake mine train replacements.
- Canadian Oil Sands plans to direct \$393 million of capital spending towards regular maintenance of the business.
- We expect that capital spending will significantly taper off after 2014 when the majority of the spending on the mine train relocations/replacements and the tailings management initiatives is completed.

## **NARRATIVE DESCRIPTION OF THE BUSINESS**

### **Syncrude**

Syncrude commenced production in 1978. Our proved plus probable reserves provide a secure, long term source of SCO production.

Syncrude is a vast and complex operation. The mines and extraction facilities are among the largest in the world, and the upgrading plants, which could be considered similar in nature to oil refineries, are also among the largest and most complex in the world. As such, a very strong focus on the basics of safety, environmental, operational and business excellence is imperative. In order to achieve these goals, Syncrude uses systems and procedures to promote: a safe work environment; improving the

operational reliability and utilization of all of its operations; reducing unit operating expenses; increasing bitumen and upgrading productive capacity; improving environmental and energy efficiencies; and capturing expansion-related economies of scale.

The key to operational excellence lies in safety, reliability and cost management. Syncrude's goals include reliability and cost performance improvements through the use of structured operating, maintenance, reliability and procurement standards. Currently, with no significant growth projects under construction, the Syncrude Participants have directed SCL to focus on ongoing reliability and performance issues. Safe, reliable operational performance is key to achieving lower per barrel operating expenses. The ongoing implementation of the MSA between SCL and Imperial Oil (discussed below) remains a key component of the commitment made by the Syncrude Participants to achieve this improved reliability.

Production volumes reflect the capacity of the Syncrude facility and the reliability of its operations. The process of mining, extracting and upgrading bitumen is a highly technical and complex manufacturing operation that requires regular maintenance of the various operating units, which can affect production volumes and consequently revenues and operating expenses. Maintenance work that occurs during the colder winter season may experience more time delays and operational issues due to extremely cold weather conditions. During these times, productivity of the mining operations may be reduced, resulting in temporary decreases of internally produced bitumen. Third party purchased bitumen supply may support marginally increased production during times when excess upgrading capacity is available, but the ability to import bitumen is limited to relatively small volumes.

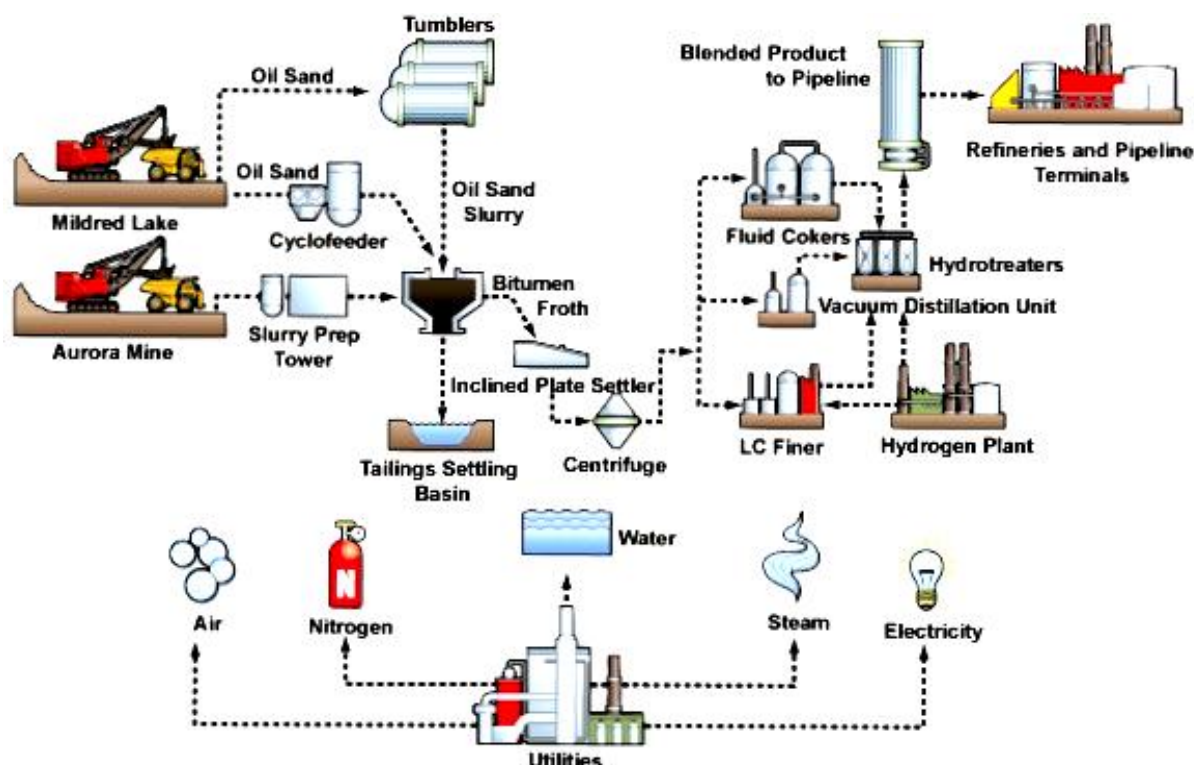
An oil sands operation such as Syncrude is essentially a manufacturing business, whereby reliability is a key factor as operating costs are largely fixed. If the facilities can process more barrels for the same costs, per barrel costs are reduced, enhancing project economics. Therefore, production volumes have a significant impact on per barrel operating expenses and, if the plant is not operating, repair costs typically also are being incurred. One of the most significant operating cost inputs is natural gas; accordingly, operating expenses are also sensitive to changes in natural gas prices and natural gas volumes consumed in the production process.

### ***Management Services Agreement***

Pursuant to the MSA, Imperial Oil, with the support of ExxonMobil, has been implementing the applicable best practices in several areas including safety, maintenance and reliability, energy management, procurement, health, environmental performance and project management with the goal of delivering sustainable improvement in Syncrude's operating performance and project execution.

The MSA has an initial term of 10 years with renewal provisions. The MSA became effective November 1, 2006 and was further amended and restated as of May 1, 2007. Each of SCL and Imperial Oil has the option to terminate the MSA on 24 months' notice for any reason. Canadian Oil Sands pays its pro-rata share of the annual fixed service fees under the MSA equivalent to about \$17 million (\$47 million gross to SCL), plus its share of the direct costs that Imperial Oil incurs in providing the services. Following the initial ten year term, the annual fixed service fees drop to \$12 million (\$33 million gross to SCL). In years four (2010) through ten (2016), performance fee incentives similar in magnitude to the fixed fees also may apply if certain production and cost targets are achieved. No performance fees have been earned to date as the targets have not been achieved. Other than as disclosed herein, the MSA does not change the existing Ownership and Management Agreement between SCL and the Syncrude Participants. SCL remains the operator and employer of Syncrude's personnel. Ownership in the Syncrude Joint Venture remains unchanged, as does the proportionate ownership in SCL.

## The Syncrude Operations



### *Mining*

Syncrude currently mines oil sands from two mines: the North Mine, located near the Mildred Lake site, and the Aurora North Mine, located 35 kilometres northeast of the Mildred Lake site. The current mining operations utilize very large shovel excavators and mining haul trucks. This technology is known as “truck and shovel” mining. The large shovels can excavate 100 tonnes per bucket load and the large haul trucks can carry up to 400 tonnes of material from the mine face to the dumping location. In addition to Syncrude’s fleet, Syncrude has and will continue to employ contractors to increase operational flexibility and material movements as the circumstances dictate.

The North Mine began operations in 1997 and contributed approximately 46 per cent of the total bitumen produced from Syncrude in 2012 (2011 – approximately 43 per cent). The Aurora North Mine began operations in 2000 and contributed approximately 54 per cent of the total bitumen produced from Syncrude in 2012 (2011 – approximately 57 per cent).

Mining operations not only deal with oil sands excavation and delivery to extraction operations but also with overburden removal. Overburden is the rock, sand and clay material found above the oil sands bearing layer in the Athabasca oil sands formations. It must be removed in order to expose the oil sands bearing layers for mining. In 2012, the total volume of overburden mined was approximately 235 million tonnes compared to 303 million tonnes in 2011 and 328 million tonnes in 2010.

Before any mining project begins, oil sands operators must develop and receive approval for closure plans that outline how mined areas will be reclaimed. The reclamation process begins after mining areas have been returned to a trafficable land form, at or near design grade, unless the intent is to construct wetlands and aquatic features which do not require trafficable substrate. As such, environment reclamation includes the costs of:

- Treatment of fluid fine tailings inventories remaining after reserves are depleted and mining operations cease.
- Reclamation material handling/placement - once the general shape of the land has been formed, reclamation material can be placed. This material is comprised of muskeg peat and organic matter which contains seeds and roots of plants.
- Landscape planning and design – to allow for appropriate vegetation patterns and faster reclamation as well as appropriate drainage.
- Re-vegetation and re-forestation - once the reclamation material has been placed, re-vegetation and re-forestation can begin. This includes levelling (to smooth the surface), contouring (to break apart any clumps that may have surfaced), seeding, and harrowing (to cover the seed which provides optimal conditions for germination).
- Ongoing monitoring - the soil is tested for various chemical and physical properties, and tree and shrub growth and health are monitored.
- Decommissioning of utilities plants, bitumen extraction plants and the upgrading complex.

Alberta government certification takes many years from the time that reclamation activities are complete. Currently, final reclamation certificates are only issued when long-term monitoring demonstrates the reclaimed land meets the objectives of equivalent vegetation maturity and land capability.

### ***Extraction***

The ore from the supplemental mining system at the North Mine is delivered to the Mildred Lake extraction facilities by conveyor and is then mixed with steam, hot water and caustic soda to produce slurry at a temperature of approximately 80°C. This mixing process occurs in large horizontal rotating tumblers that condition the mixture for separation. This slurry is discharged from the tumblers onto vibrating screens to remove large rocks and lumps of clay prior to entering the primary separation vessel, where the floated bitumen is recovered.

The rest of the ore at the North Mine is crushed in a double roll crusher, and conveyed to a cyclofeeder where it is mixed with warm water and caustic soda to produce a slurry at a temperature of approximately 50°C. The use of warm water in this process as opposed to hot water has led to decreases in energy consumption in this part of the operations. The resulting slurry is screened, and the oversized material is rejected for further crushing and reprocessing. The slurry is further conditioned as it is transported to the Mildred Lake extraction plant via a hydrotransport pipeline where it enters the primary separation vessels.

At the Mildred Lake extraction plant, the slurry flows into primary separation vessels and further separation takes place. The resulting froth is then mixed with the froth from the Aurora North Mine and diluted with naphtha prior to further processing. A final stage of separation removes substantially all of the remaining water and clay fines, leaving bitumen as the feedstock for the upgrader.

The extraction process at the Aurora North Mine is similar to the North Mine, with a few exceptions. After the ore is crushed in the double roll crusher, it is conveyed to a mixbox where it is mixed with water to produce a slurry with a temperature of approximately 35°C. Rather than shipping the oil sands slurry to the Mildred Lake extraction plant, the slurry is transported via a hydrotransport pipeline to one of two primary separation vessels located at the Aurora North Mine (approximately three to five kilometres from the active mining area). Here, the sand settles to the bottom of the vessel and is

transferred to the Aurora North Mine's tailings pond. The froth rises in the primary separation vessels, is recovered and is then piped to Mildred Lake for further processing.

The material remaining after the bitumen is extracted from the oil sands consists of water, sand, fine clay particles and some residual hydrocarbons. This material is sent to a tailings settling basin (commonly referred to as tailings ponds) where the solids settle to the bottom and the clarified water is recycled for re-use in the extraction process. Coarse solids settle rapidly, but fluid fine tailings can remain in suspension without treatment. The treatment of fluid fine tailings is the subject of considerable research and development activity to identify the most cost effective and environmentally responsible disposal method. Tailings ponds are an integral part of operating the facilities and, in particular, allow the recycling of water in the operations. The key tailings research and development initiatives proposed for the next few years include: optimization of the composite tailings process; reclamation of tailings deposits; managing recycle water chemistry; and development of supplementary technologies to manage fluid fine tailings from oil sand applications, including fluid fine tailings centrifugation and accelerated dewatering of fluid fine tailings.

Syncrude's tailings plan submission regulated by Directive 074 employs composite tailings technology, centrifuge technology and end pit lake bioremediation technology. A composite tails technology that mixes fluid fine tailings with gypsum and coarse tailings sand to transform the fluid fine tailings into solid material suitable for reclamation began application at the Mildred Lake site during 2000. Centrifuging fluid fine tails uses mechanical energy and polymer addition to speed up the separation of water and fines releasing water for reuse and producing a trafficable deposit that can be placed in a designated disposal area creating a dry landscape. Syncrude is continuing to develop the tailings centrifuge technology with a commercial scale plant constructed in 2012 and a full scale plant expected to be in-service in 2015. End pit lake bioremediation technology places fluid fine tails in a pit which is capped with fresh water. Natural microorganisms work to detoxify the process affected water and research indicates that aquatic life returns to the capped lakes in a few years. Tailings treatment activities support ongoing operations by providing water for re-use in the extraction process. As such, the costs of treating tailings while mining activities are ongoing are considered operating expenses of Canadian Oil Sands. The costs of treating tailings inventories remaining after reserves are depleted and mining operations cease are considered reclamation costs. See "*Environmental Regulation and Protection – Tailings*" on page 25 of this AIF for a more detailed description of tailings management.

One of the key performance metrics associated with the extraction operation is known as "recovery". Recovery measures the volume of bitumen recovered from the oil sand as a per cent of the oil that was originally contained in the oil sand processed in the extraction plants. In 2012, this recovery factor was approximately 92 per cent (2011 – approximately 92 per cent). The recovery factors are primarily dependent upon operational reliability, ore quality and the extraction process utilized. The more reliable the operations, the higher the recovery rate tends to be.

### ***Upgrading***

Upgrading is the process by which the bitumen is converted into SCO. The first step in upgrading is the removal of the diluent naphtha which was added in the extraction plant. This naphtha is recycled to the froth treatment plant for re-use. Next, the bitumen is fed through a vacuum distillation unit in which lighter fractions of hydrocarbons are removed for further processing, as discussed below. The heavier bitumen components are processed in three fluid cokers and one LC finer. While these two forms of upgrading bitumen are somewhat different, they have the same intended purpose, namely to break down the heavier hydrocarbon components into lighter components. The lighter hydrocarbons separated in the vacuum distillation unit are "by-passed" around the cokers and the LC finer because they are already of sufficient quality to be processed directly in secondary upgrading process units. The vacuum distillation unit capacity is about 285,000 bbls/d.

Fluid coking involves the thermal cracking of bitumen molecules into lighter components. The by-products of this process include petroleum coke, carbon monoxide (“CO”) gas and off gas. CO gas is used as fuel in CO boilers to generate steam and power for the facility. Off gas is used as fuel in the upgrader. The residual coke produced in the coker is slurried into a dedicated area of the tailings pond. The two original fluid cokers have been expanded in capacity over the years and, in 2012, each had a nominal capacity rating of approximately 105,000 bbls/d of a 50/50 mix of bitumen and heavier vacuum topped bitumen feed. This capacity was unchanged from 2011. The third fluid coker has the same purpose as the original two cokers but is designed to process 95,000 bbls/d of 100 per cent vacuum topped bitumen.

The LC finer cracks bitumen molecules into lighter components via the addition of hydrogen and in the presence of a catalyst. This unit does not convert all of the bitumen to light products. An unconverted residual stream also is produced and this stream is sent to the fluid cokers to supplement the feed to those units. In 2012, the LC finer unit had a nominal capacity rating of approximately 50,000 bbls/d of a 60/40 mix of bitumen and vacuum topped bitumen feed.

One of the key performance metrics associated with the upgrading operation is referred to as “yield”. Yield measures the volume of upgraded products produced per volumetric measure of bitumen feedstock. In 2012, the upgrading yield was approximately 86 per cent, unchanged from 2011. The more reliable the operations, the higher the yield tends to be.

The lighter hydrocarbon components produced by the three fluid cokers, the LC finer, and those removed in the vacuum distillation unit are then sent to hydroprocessing units for further clean up. Hydrotreating primarily involves the removal of sulphur and nitrogen compounds via the addition of hydrogen. The hydrotreated components are then blended together into SCO. SCO contains no asphalt residuum and is low in sulphur, providing an attractive feedstock to refineries.

SCO production in 2012 totalled 104.9 million barrels, compared with 105.3 million barrels in 2011. Production volumes in 2012 reflect maintenance on Coker 8-1, planned turnarounds of Coker 8-3 and the Vacuum Distillation Unit, and unplanned outages in mine trains. Production volumes in 2011 reflect the Coker 8-2 turnaround and unplanned outages of Coker 8-1 and a hydrogen unit.

### ***Utilities and Offsites***

The utilities plants produce steam, electricity, air and water for the mining, extraction and upgrading plants. These commodities are often generated from fuels and heat produced as by-products in the major operating areas or from purchased energy sources such as natural gas, diesel or electricity. Production of bitumen and SCO is dependent on the availability of commodities such as water, steam and electricity. The production of bitumen and/or SCO can be restricted due to a shortage of such commodities.

Syncrude operates utility plants located both at the Mildred Lake and Aurora North sites. Energy systems are highly integrated at the Mildred Lake site, taking advantage of the heat generated in the upgraders and moving that energy to the energy-consuming plants in mining and extraction. The Aurora North mine relies mainly on purchased natural gas for its energy needs, as process heat from the upgrader is unavailable due to the mine’s distance from the Mildred Lake plant.

One of the key operating cost metrics associated with the Syncrude operation is purchased energy consumed per barrel of SCO. In 2012, the purchased energy intensity was 1.35 GJs per barrel compared to 2011 which was 1.35 GJs per barrel. Purchased natural gas prices decreased to \$2.34 per GJ in 2012 compared to \$3.48 per GJ in 2011.

Natural gas, used by Syncrude to fuel operating plants and as feedstock in the production of hydrogen, is transported to Syncrude from Alberta's gas production and transmission infrastructure. The gas is purchased from producers under various supply contracts to manage Syncrude's requirements.

Off-sites are generally referred to as those facilities required to support the operation of the main processing plants. These facilities include product storage tank farms, waste water collection and handling systems and flares.

Syncrude operates a utility plant at its Mildred Lake site using refinery off gas, produced from the upgrading operation, augmented with natural gas. When operationally and economically desirable, Syncrude purchases power from, or sells power to, the Alberta electric power grid. Syncrude also owns two 80-Megawatt gas turbine power plants at the Aurora North Mine site that provide electrical and thermal energy for the Aurora North Mine operations. These plants are connected with the Mildred Lake facilities. The Aurora Thermal Block ("ATB") consists of two hot water generators. The ATB facilities provide hot water generating capacity at Aurora North and allow the extraction process to operate at the required 35°C temperature.

## **Marketing**

Each Syncrude Participant is responsible for marketing its own share of SCO and associated by-products, such as sulphur. COSP takes title to its SCO at Syncrude's plant gate. It is then transported by a pipeline dedicated for use by the Syncrude Participants to Edmonton where SCO volumes are sold or arrangements are made for storage or further transportation to markets in Canada and the United States through a system of inter-connected pipelines and storage locations. There are three refineries in or near Edmonton that combined consume approximately 425,000 barrels per day of crude oil including between 190,000 to 240,000 barrels per day of various synthetic crude oils such as SCO and there are approximately 150 refineries in Canada and the United States in total. Canadian Oil Sands has 250,000 barrels of storage capacity in the Edmonton area to facilitate its marketing arrangements.

SCO sales contracts are typically negotiated directly with refiners throughout Canada and the United States but Canadian Oil Sands also contracts with marketing and trading companies and other producers. Typical contract terms are based on 30, 60 or 90 day arrangements which continue unless terminated but are occasionally made for longer terms. SCO is usually priced each month on the basis of Canadian and United States market prices, which reflect the market balance between supply and demand for crude oil, transportation costs, market access, available pipeline and rail capacity and refined product values. Sales of SCO represented 96 per cent of our total consolidated sales in 2012 (2011 – 99 per cent). The balance of Canadian Oil Sands sales is primarily comprised of sales of other crude oil, which the Corporation purchases from third parties to facilitate certain transportation arrangements. Sulphur is removed as part of the upgrading process and currently the majority of sulphur production is sold with the remainder stockpiled on blocks at Syncrude's Mildred Lake plant site.

Production volumes of synthetic crude oil and other crude oil from Canada and the United States have risen in recent years. This increase in crude oil supply in the North American market has required Canadian Oil Sands to sell its production to a broader group of refineries and customers many of which are located farther away than the refineries to which Canadian Oil Sands had marketed to in the past. In addition, a number of refineries in the United States have, or are in the process of, modifying their plants to process increased volumes of heavy oil, which is expected to reduce the overall refining demand for SCO.

Increasing crude oil supply coupled with reduced export pipeline capacity related to a number of pipeline incidents over the last few years has resulted in pipeline apportionment which currently continues. Apportionment occurs when the demand for pipeline space exceeds the capacity of the pipeline and as a result pipeline space is allocated among various pipeline customers. A number of

pipeline projects to build new or expand and extend existing pipelines in order to increase crude oil delivery capacity beginning around 2015 are currently planned, such as TransCanada's Keystone XL and various Enbridge pipeline projects. However, approvals and permits are required for these projects and there is no guarantee that such pipeline projects will be built.

Crude oil prices are volatile, reflecting world events and world and regional supply and demand fundamentals. During the past two years, WTI monthly average prices have fluctuated from U.S. \$82 per barrel to U.S. \$110 per barrel. Synthetic crude oil is typically priced in the market off of a differential to WTI. Historically, our realized selling price has correlated closely to WTI converted into Canadian dollars, however, the SCO to WTI monthly average price differential has experienced increased volatility over the last two years. In addition, increasing Canadian and United States crude oil supply and logistical constraints have resulted in a wide negative differential between North American prices such as WTI and international prices such as European Brent. WTI monthly prices have traded at an average U.S. \$17 per barrel discount to European Brent prices over the last two years. The differentials are expected to narrow as North American transportation logistics improve.

Continued projected increases in North American crude oil supply coupled with declining or flat demand is expected to require us to market SCO to a broader group of customers located farther away from our historical markets, including overseas markets. In this regard, Canadian Oil Sands is supportive of export crude oil pipeline projects generally and has provided direct and indirect support to certain projects.

## **Competition**

The Canadian and international petroleum industry is highly competitive in all aspects, including the distribution and marketing of petroleum products. Syncrude competes with other producers of crude oil. Most of the conventional producers have lower operating expenses but have finding costs. The petroleum industry also competes with other industries in supplying energy, fuel and related products to consumers. In particular, the increased activity in construction of new oil sands projects and in the production and mining of oil sands over the past several years generally created shortages in the supply of skilled labour and certain materials used in mining operations. Certain skilled labour groups remain in short supply and our operations are impacted by labour shortages both on cost and scheduling aspects. We believe that the competition for labour and materials will continue to be a risk factor in the coming years.

## **Seasonal and Other Cyclical Factors**

Quarterly variances in revenues, net income and cash flow from operations are caused mainly by fluctuations in crude oil prices, production and sales volumes, operating expenses and natural gas prices. Net income also is impacted by non-cash foreign exchange gains and losses caused mainly by fluctuations in foreign exchange rates on our U.S. dollar denominated debt and by income tax changes. A large proportion of operating expenses are fixed and, as such, per barrel operating expenses are variable to production volumes. While the supply/demand balance for synthetic crude oil affects selling prices, this balance is difficult to predict and has not displayed significant seasonality. Syncrude maintenance and turnaround activities are typically scheduled to avoid the winter months. However, the exact timing of unit shutdowns cannot always be accurately scheduled, and unplanned outages occur. Accordingly, production levels also may not display reliable seasonality patterns or trends. The costs of major turnarounds are capitalized as property, plant and equipment and depreciated over the period until the next scheduled turnaround. The costs of all other turnarounds and maintenance activities are expensed in the period incurred, which can result in volatility in quarterly operating expenses. All turnarounds and maintenance activities impact per barrel operating expenses because sales volumes are lower in the periods when this work is occurring. Natural gas prices are typically higher in winter months as heating demand rises, but this seasonality is significantly influenced by weather conditions and North American



natural gas inventory levels. In addition, technological developments in North American natural gas production have significantly increased production levels and reduced natural gas prices.

## **Regulation of Operations**

In Alberta, the regulation of oil sands operations is undertaken by the ERCB. The ERCB derives its jurisdiction, in part, from the *Oil Sands Conservation Act* (Alberta). In addition to requiring certain approvals prior to the operation of an oil sands project, the *Oil Sands Conservation Act* (Alberta) allows the ERCB to inspect and investigate oil sands operations and, where a practice employed or a facility used in respect of the oil sands operations does not meet operating criteria and/or approval conditions, to make remedial orders such as the imposition of administrative penalties and/or operational constraints. Certain changes to an oil sands operation also require the approval of the ERCB.

On October 24, 2012 the Alberta government introduced Bill 2, the *Responsible Energy Development Act*. It will create a single provincial regulator for upstream energy resource activities. The proposed Alberta Energy Regulator (the “AER”) will assume the functions of the ERCB and AESRD for oil, gas, oil sands and coal developments. The AER will be governed by a board of directors and is expected to be in operation by June 2013.

In February, 2012, the Canadian federal and Alberta governments released the Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring. This Plan, which is expected to cost industry up to \$50 million per year, outlines an enhanced oil sands monitoring program that takes an integrated approach to air, land, water and biodiversity monitoring. It will be initially managed by government and will subsume and build on existing regional monitoring efforts currently carried out by a variety of organizations. In October 2012, the Alberta government announced the creation of a new arm’s length environmental monitoring agency. The initial focus of the agency will be on the Lower Athabasca area with the ability to expand to the rest of Alberta. While the new agency is being established, environmental monitoring in the oil sands region will continue to be led through the joint federal-provincial program announced in February 2012.

On April 26, 2012, the Canadian federal government introduced Bill C-38, the 2012 Budget Bill. Bill C-38 contained several legislative changes to the federal regulatory system. The most significant change was the complete repeal and replacement of the *Canadian Environmental Assessment Act*, the central piece of federal environmental legislation, with the *Canadian Environmental Assessment Act, 2012*. Some of the significant and relevant aspects of Bill C-38 are: (i) it introduces fixed timelines for regulatory review of major projects by federal regulators; (i) it will set legally binding timelines for certain key regulatory permitting processes (such as approvals under the *Fisheries Act*); and (iii) it will give the Canadian federal government the authority to approve or reject a proposed interprovincial or international pipeline project based on the recommendations of the National Energy Board. On October 18, 2012, the Canadian federal government proposed a second omnibus bill, Bill C-45, which proposes additional changes to the federal regulatory system, including significant changes to the *Navigable Waters Protection Act* (the “Navigable Waters Act”). This Bill will focus the Navigable Waters Act (which will become the *Navigation Protection Act*) on specific major watercourses in Canada and will remove the requirement for approvals from Transport Canada for water crossings of minor watercourses.

## **Environmental Regulation and Protection**

### ***General***

The oil and gas industry in Alberta is subject to extensive controls and regulations. The regulatory scheme, as it relates to oil sands, is somewhat different from that relating to conventional oil and gas production. Outlined below are some of the more significant aspects of the legislation and regulations governing the mining, extraction, upgrading and marketing of oil sands.

Oil sands operations, including Syncrude, are subject to environmental regulation pursuant to provincial and federal legislation. Environmental legislation requires various approvals and provides for restrictions and prohibitions on releases or emissions of various substances produced or utilized in association with certain oil and gas industry operations. In addition, legislation requires that facilities and operating sites be abandoned and reclaimed to the satisfaction of provincial authorities. A breach of such legislation may result in the imposition of fines and penalties. In Alberta, environmental compliance is primarily governed by the AEPEA. The AEPEA imposes certain environmental responsibilities on oil and natural gas operators in Alberta and, in certain instances, also imposes significant penalties for violations. SCL has received and presently maintains the requisite environmental approvals necessary to operate the Syncrude Plant.

The December 1999 AEUB approval of Syncrude's upgrading expansion application allows production of 173 million barrels of SCO per year using technology identified in the application. This permit expires on December 31, 2035. Environmental approvals (primarily managed by AESRD through the AEPEA and the *Water Act*) and resource development approvals (primarily managed by the ERCB under the *Oil Sands Conservation Act*) have interrelated conditions governing both energy resource management and environmental protection issues.

In 1996, Syncrude submitted an application and environmental impact assessment ("EIA") for the Aurora mine project to the ERCB and AENV. Following a review of the application, EIA and supplementary filings, Syncrude received ERCB Approval 8250 for the Aurora mine project, which included the Aurora North and South mines and supporting infrastructure. AENV subsequently issued an approval under AEPEA for the construction, operation, and reclamation of the Aurora North mine. ERCB Approval 8250 (subsequently replaced with Approval 10781) stipulated that Syncrude not begin development of the Aurora South mine until it had completed additional evaluations to the ERCB's satisfaction. These evaluations are to be completed and submitted no later than June 30, 2013.

Syncrude's AEPEA approvals also regulate the discharge of substances into the air and water. These approvals were issued with 10 year terms, the maximum term permitted by this legislation. The renewal or modification of approvals generally involves AESRD soliciting the views of stakeholders (the local community, Aboriginal population and other interested persons). Renewal or modification of approvals is often conditional, permitting AESRD to review the effect of discharges or the implementation and effectiveness of new technologies. AENV approval for the Aurora North facilities was received in 1998. A new AEPEA approval, governing both the Mildred Lake and Aurora North facilities, was issued in June 2007 and is effective until June 23, 2017.

### ***Land Use***

On August 22, 2012, the Alberta government approved the Lower Athabasca Regional Plan (the "LARP"), which came into effect on September 1, 2012. The LARP is the first regional plan to be developed under the *Alberta Land Stewardship Act* of 2009. The LARP covers the northeast corner of Alberta and the entirety of the Athabasca oil sands region. Among other provisions, the LARP requires a cumulative effects management approach which involves managing air, water and biodiversity through management frameworks that set environmental limits and triggers. Syncrude will have to address these effects in their regulatory submissions for new projects. Some of the key management frameworks are not complete so the full impact of the LARP on resource development is not yet known. Syncrude's leases will not be impacted by the new conservation areas created by the LARP in 2012.

### ***Reclamation***

Syncrude is required by law to submit a reclamation and closure plan every three years. Syncrude provided its update to regulators in 2011. This reclamation plan is separate from, but consistent with, Syncrude's tailings plan submitted under Directive 074.

Syncrude Participants, including Canadian Oil Sands, are liable for their share of ongoing obligations for the ultimate reclamation and closure of the Syncrude Joint Venture properties. The asset retirement obligation (“ARO”) represents the present value estimate of Canadian Oil Sands’ share of these costs for the operating mines, utilities, extraction and upgrading facilities.

Canadian Oil Sands records the discounted estimated value of the future reclamation and closure costs as an ARO on our Consolidated Balance Sheet with a corresponding increase to property, plant and equipment. The depreciation expense on the property, plant and equipment is recorded in depreciation and depletion, and the accretion expense on the ARO is recorded in net finance expense. At December 31, 2012, the ARO recorded on the Consolidated Balance Sheet was approximately \$1,102 million (including \$44 million recorded in accounts payable and accrued liabilities) compared with \$1,037 million at December 31, 2011 (including \$29 million recorded in accounts payable and accrued liabilities). The increase in 2012 reflects: (i) a decrease in the risk-free interest rate used to discount future reclamation and closure expenditures; and (ii) an acceleration in the estimated timing of certain future reclamation and closure expenditures; partially offset by reclamation spending during 2012.

Canadian Oil Sands’ share of Syncrude’s reclamation expenditures was \$54 million in 2012 and \$49 million in 2011. These expenditures reduced the liability recorded on our balance sheet. A full discussion of our accounting for the ARO can be found in the notes to our consolidated financial statements in our 2012 annual report.

The Syncrude Joint Venture is required to post annually with the AESRD irrevocable letters of credit to secure the reclamation and closure obligations of the Syncrude Project. As at December 31, 2012, the Corporation had posted letters of credit with the Province of Alberta in the amount of \$75 million (\$75 million in 2011), to secure its pro rata share of the reclamation and closure obligations of the Syncrude Participants. AESRD’s Mine Financial Security Program governs the level of security required.

In addition to posting a letter of credit for its share of reclamation with the AESRD, Canadian Oil Sands currently pays \$0.25 for each barrel of SCO produced and attributable to our 36.74 per cent Syncrude working interest to a reclamation trust to fund our share of reclamation and closure obligations for the Syncrude Project. Since 2002, we have the right to adjust the amount deposited in the reclamation trust from time to time as estimates of final reclamation and closure costs change. As at December 31, 2012, we have accumulated approximately \$69 million (including interest earned on contributions) towards future reclamation and closure costs in the reclamation trust. At December 31, 2011, this amount was \$58 million.

In 2012, Syncrude’s reclamation expenditures totaled approximately \$148 million (2011 – approximately \$135 million). Syncrude’s long term plan is to return the land to a stable, biologically self-sustaining condition with a vision of creating an area of forest, parklands and lakes. As at December 31, 2011, Syncrude had approximately 3,186 hectares of permanently reclaimed land, 104 hectares of certified reclaimed land (Gateway Hill discussed below) and approximately 1,200 hectares of soils placed and contoured and ready for planting. The 2012 reclamation numbers are not yet available. Syncrude has planted approximately 6.9 million seedlings in the region since 1978. A portion of the land that has been reclaimed by Syncrude is used as a grazing ground for more than 300 wood bison.

In addition to Syncrude’s permanently reclaimed land, in 2008, the Alberta government certified a parcel of reclaimed land north of Fort McMurray. The 104 hectares, known as Gateway Hill, was submitted by Syncrude to the Alberta government in 2003 for certification. AEPEA requires operators to conserve and reclaim specified land and obtain a reclamation certificate. These certificates are issued to operators when their site has been successfully reclaimed to the satisfaction of the Alberta government. Syncrude was the first in the oil sands industry to receive certification for land that had been reclaimed.

## ***Greenhouse Gas Emissions***

In 2007, the Alberta government's Specified Gas Emitters Regulation under the *Climate Change Emissions Management Act* came into effect. The current regulation requires that facilities emitting more than 100,000 tonnes of greenhouse gas ("GHGs") per year must reduce their GHG emissions intensity by 12 per cent over the average emissions intensity levels of 2003, 2004 and 2005. If the emissions intensity target is not met through improvements in operations, compliance tools include: per tonne payment into the climate change and emissions management fund; purchase of Alberta based offsets; or purchase of emission performance credits from a different Alberta facility. The charge payable to the climate change and emissions management fund is \$15 per tonne for each tonne in excess of the target. The regulation pertaining to GHG compliance costs has been in effect since July 1, 2007. These payments are deposited into an Alberta-based technology fund for developing infrastructure to reduce emissions or support research into climate change solutions.

In 2012, Syncrude accrued approximately 20 cents per barrel, or approximately \$21 million, for compliance with the Specified Gas Emitters Regulation. For 2011, Syncrude paid \$21 million into the technology fund and in 2010, \$16 million. The cost estimate for 2012 is preliminary, pending Syncrude's actual CO<sub>2</sub> emission intensity level. Assuming current government regulation and budgeted production and operating performance, we expect that Syncrude's compliance costs for the Specified Gas Emitters Regulation will be approximately \$23 million in 2013.

The Canadian federal government has contemplated various climate change strategies in recent years ranging from a cap-and-trade regime to intensity based reduction targets. On January 31, 2010, the Canadian federal government committed under the Copenhagen Accord to reducing GHG emissions by 17 per cent from 2005 levels, which is linked to the same target adopted by the United States. To date, the Canadian federal government has pursued a sector-by-sector regulatory approach beginning with the electricity and transportation sectors. The Canadian federal government is currently looking at how to regulate GHG emissions from oil sands operations and conventional crude oil and natural gas extraction. The Canadian federal government, however, has not yet passed any broad climate change legislation or regulations that target the oil sands sector.

## ***Tailings***

In February 2009, the ERCB issued Directive 074. The directive established performance criteria for tailings operations and requirements for the approval, monitoring and reporting of tailings ponds and plans. Directive 074 requires operators to submit an annual tailings plan to the ERCB. It also requires the submission of quarterly progress reports on fines capture.

On September 28, 2012, Syncrude submitted their fourth annual tailings plan, as required by Directive 074. This plan outlines a multi-pronged approach for meeting the requirements of Directive 074 through the implementation of three main tailings technologies: water capping, composite tails and centrifuge technology.

In addition to Directive 074, AESRD is also developing a Tailings Management Framework ("TMF"). TMF is an overarching framework to manage all aspects of tailings including: volume of fluid fine tails, size of tailings ponds, GHG impact, water use/re-use/return; progressive reclamation and the use of research and development.

## ***Industry Collaboration Initiatives***

In 2012 a number of oil sands producers formed Canada's Oil Sands Innovation Alliance ("COSIA"), focused on accelerating the pace of improving environmental performance in Canada's oil sands. The creation of COSIA builds on the work done by both oil sands industry members and research

and development organizations such as the Canadian Oil Sands Network for Research and Development, the Oil Sands Leadership Initiative and the Oil Sands Tailings Consortium. COSIA's goal is to bring together industry, government, academia and the public to improve measurement, accountability and environmental performance in the oil sands. Both Syncrude and Canadian Oil Sands are members of COSIA.

### ***Social and Environmental Policies***

Canadian Oil Sands is not the operator of the Syncrude Project. SCL, as the operator of the Syncrude Project, has policies relating to safety, stakeholder relations, Aboriginal relations and environmental protection. SCL also participates in various organizations concerned with environmental, Aboriginal and community development matters. Furthermore, through the MSA, SCL has implemented or is in the process of implementing certain global practices in several areas, including without limitation, safety, energy management, health and environmental performance.

### **Lease Tenure**

Oil from oil sands is produced under oil sands leases granted by the Province of Alberta. Such leases have initial terms which vary in length but generally are for 15 years. Although the terms of future leases may vary, the current Syncrude leases have, for the most part, 15-year terms. If production attributable to a lease exceeds the minimum production thresholds set forth in the lease, it automatically renews at the end of each term. In addition, leases renew automatically if a development plan for a project involving the lease has been approved by the Alberta Minister of Energy and is being pursued by the lessor. In 1997, the Province of Alberta approved the continuation of the four Aurora leases (being leases 10, 12, 31 and 34) based on the Syncrude Project development plan, including the Aurora project, and so long as such plan and approval is in effect and being followed, the Aurora leases will continue to renew at the end of each term. In 1999, SCL received confirmation that Leases 29 and 30 also are included for tenure purposes within the Syncrude Project development plan. In 2002, Leases 17 and 22 were continued under section 13 of the Oil Sands Tenure Regulations AR 50/2000 for an indefinite term with a production status.

In 2009, as part of a leasehold swap aimed at increasing recovery of bitumen from the government leases by all oil sands operators, Syncrude acquired a portion of Lease 52 from Fort Hills Energy L.P.

### **Crown Royalties**

The Province of Alberta imposes royalties of varying rates on the production of bitumen and crude oil from lands where it owns the mineral rights. The bitumen recovered by Syncrude is subject to a royalty which SCL pays to the Alberta government on behalf of the Syncrude Participants.

In 2007, the Alberta government announced its plan to introduce a new Crown royalty framework, which was made effective January 1, 2009 for the Alberta oil and gas industry. Pursuant to the Alberta Crown Agreement, the Syncrude Participants had an agreement with the Alberta government which codified Syncrude's Crown royalty terms to December 31, 2015. However, the Syncrude Participants entered into negotiations with the Alberta government in 2008 to determine how the Syncrude Project would be transitioned to the new Crown royalty framework. In November 2008, the Syncrude Participants entered into the Amended Royalty Agreement and the Syncrude Bitumen Royalty Option Agreement.

Beginning in 2009, Syncrude transitioned to paying Crown royalties based on deemed bitumen revenues, less allowed operating, development and capital costs related to bitumen, rather than on the production of SCO. From 2009 through 2015, Syncrude's Crown royalties are determined pursuant to the Amended Royalty Agreement and the Syncrude Bitumen Royalty Option Agreement.

Under the Amended Royalty Agreement, the Syncrude Participants pay the greater of 25 per cent of net deemed bitumen revenues, or one per cent of gross deemed bitumen-based revenues, plus an additional royalty of up to \$975 million (\$358 million net to Canadian Oil Sands) for the period January 1, 2010 to December 31, 2015. The additional royalty of \$975 million is reduced proportionally if bitumen production is less than 345,000 barrels per day over the period and is payable in six annual installments, as per the schedule outlined below:

(\$Millions)

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Total</b>
Syncrude Canada Ltd.	75	75	100	150	225	350	975
Canadian Oil Sands' Share	27	27	37	55	83	129	358

Under the Syncrude Bitumen Royalty Option Agreement, costs related to capital expenditures that were deducted in computing Crown royalties on SCO prior to 2009, and which expenditures are no longer associated with the royalty base, are recaptured by the Crown. Gross recapture amounts totaling approximately \$5 billion (\$1.8 billion net to Canadian Oil Sands) will reduce deductible costs in calculating Crown royalties over the 25 year period 2009 to 2033 resulting in additional future Crown royalties of approximately \$1.25 billion plus interest (\$459 million net to Canadian Oil Sands plus interest (based on current Canadian federal government long-term bond rates)) over that time period.

The Amended Royalty Agreement requires that bitumen be valued by a formula that references the value of bitumen based on a Canadian heavy oil reference price further adjusted to reflect quality and location differences between Syncrude's bitumen and the Canadian reference price bitumen. In addition, the agreement provides that a minimum bitumen value, or "floor price", may be imposed in circumstances where Canadian heavy oil prices are temporarily suppressed relative to North American heavy oil prices.

Canadian Oil Sands' share of the royalties recognized for the period from January 1, 2009 to December 31, 2012 reflect management's best estimate of both reasonable quality and transportation deductions and adjustments to reflect the "floor price". However, the Syncrude Participants and the Alberta government are disputing the basis for the quality, transportation and "floor price" adjustments. Under alternate assumptions, Crown royalties for this period could be as much as \$55 million (on an after-tax basis) more than the amounts recognized.

The Syncrude Participants and the Alberta government continue to discuss these matters, but if such discussions do not result in an agreed upon solution, either party may seek judicial determination of the matter. The cumulative impact, if any, of such discussions or judicial determination, as applicable, would be recognized and impact both net income and cash flow from operations accordingly.

After 2015, the Syncrude Project will be subject to the new Crown royalty framework that applies to most of the oil sands industry in Alberta today. This generic royalty regime is based on a sliding scale rate that responds to Canadian dollar equivalent WTI ("C\$-WTI") price levels. Under this regime, the Crown's royalty from the Syncrude Project will be the greater of the gross royalty and the net royalty for any given period. The gross royalty starts at one per cent of gross deemed bitumen revenues when C\$-WTI oil is less than or equal to \$55 per barrel and increases to nine per cent of gross deemed bitumen revenues at a C\$-WTI price of \$120 per barrel or higher. The net royalty starts at 25 per cent of net deemed bitumen revenues and increases for every dollar the C\$-WTI price increases above \$55 per barrel up to 40 per cent of net deemed bitumen revenues at a C\$-WTI price of \$120 per barrel or higher.

Copies of the Amended Royalty Agreement and the Syncrude Bitumen Royalty Option Agreement are available at [www.sedar.com](http://www.sedar.com) as material contracts of the Corporation.

## **Taxes**

Prior to the Reorganization, income was mainly sheltered from income tax through the payment of distributions to Unitholders. After the Reorganization, the Corporation's earnings became subject to corporate income tax. The Corporation is subject to federal income tax at a rate of 15% and Alberta income tax at a rate of 10%.

During 2011, the Canadian federal government enacted legislation to change the taxation of partnership income. Beginning in 2012, partnership income earned by COSP must be included in the taxable income of COSP's corporate partners based on their tax year ends, rather than the tax year of COSP. The change has a five year transition period and had no impact on Canadian Oil Sands' net earnings in 2012.

## **Employees**

As at December 31, 2012, the Corporation employed 24 full-time and four part-time employees and six consultants.

As at December 31, 2012, as the operator of the Syncrude Project, SCL employed approximately 5,100 full time equivalent positions, all of whom were non-unionized. While it is believed that SCL will remain non-unionized, no assurance can be given that the workforce will not become unionized.

SCL also uses the services of various outside contractors to provide contract maintenance support for certain areas of the Syncrude Plant. Additional contractors also are required during shutdowns, maintenance work and major capital construction. Most of the workers employed by these contractors are unionized. Labour stability of the unionized contractor work force is maintained through a number of industry and site-wide agreements, which set labour rates and working conditions for unionized trade workers engaged in construction and maintenance activities at various projects in Alberta, including the Syncrude Plant.

## **RISK FACTORS**

### **Risks Relating to Canadian Oil Sands' Business**

#### ***The financial results of Canadian Oil Sands are highly dependent on the price of crude oil***

The financial condition, operating results and future growth of Canadian Oil Sands are substantially dependent on prevailing and expected prices of oil. Prices for oil are subject to large fluctuations in response to changes in the supply of and demand for oil, market uncertainty and a variety of additional factors, including access to markets and sufficient transportation capacity, all of which are beyond the control of Canadian Oil Sands. Prices are influenced by global and regional supply and demand factors. These factors include: the condition of the Canadian, United States and global economies; access to markets and sufficient pipeline and rail capacity; weather conditions in Canada and the United States; the actions of the Organization of Petroleum Exporting Countries; governmental regulation; political stability in the Middle East and elsewhere; war, or the threat of war, in oil producing regions; the foreign supply of oil and refined products; the price of foreign imports of crude oil and refined products and the availability and price of alternate fuel sources. All of these factors are beyond our control and can result in a high degree of price volatility not only in crude oil and natural gas prices, but also fluctuating price differentials between heavy and light grades of crude oil and price differentials between SCO and light crude oil benchmarks such as WTI and European Brent, all of which can impact prices for SCO. During the past two years, WTI monthly average prices have fluctuated from U.S. \$82 per barrel to U.S. \$110 per barrel. As a result of increasing Canadian and United States crude oil supply coupled with logistical constraints, this monthly average WTI benchmark traded at an average U.S. \$17 per barrel discount to monthly European Brent prices over the

same period. Canadian Oil Sands' realized SCO to WTI monthly average price differential has ranged from a \$14 per barrel premium to a \$17 per barrel discount over the last two years.

A prolonged period of low crude oil prices could affect the value of our interest in the Syncrude Project and the level of spending on growth projects and could result in curtailment of production. Any substantial and extended decline in our realized SCO price would have an adverse effect on the revenues, profitability and cash flow from operations of Canadian Oil Sands and would likely affect the ability of Canadian Oil Sands to pay dividends and to repay its debt obligations.

While the Syncrude Project has not been shut down for non-operational reasons by the Syncrude Participants since production commenced in 1978, a prolonged period of very low oil prices could result in the Syncrude Participants deciding to suspend production. Any such suspension of production could expose Canadian Oil Sands to significant additional expense and would negatively impact its ability to pay dividends and to repay its debt obligations.

***Transportation and delivery infrastructure issues may cause an adverse impact on Canadian Oil Sands' results***

All of our Syncrude production is transported through the AOSPL system, which delivers SCO to Edmonton, Alberta. Disruptions in service on this system could adversely affect our crude oil sales and production and cash flow from operations. The AOSPL system feeds into various other crude oil pipelines that are used to deliver SCO to refinery customers within Canada and the United States. Interruptions in the availability or apportionment of volumes on these pipeline systems may limit the ability to deliver production volumes and could adversely impact sales volumes or the prices received for SCO. These interruptions may be caused by the inability of the pipeline to operate, or they can be related to capacity constraints as the supply of feedstock into the system exceeds the infrastructure capacity.

Apportionment on certain export pipelines has resulted from crude oil supply growth and pressure restrictions. To date, apportionment has not affected our annual sales volumes but has restricted our ability to reach preferred markets as well as our price realizations. Pipeline apportionment is impacted by crude oil supply and demand factors, transportation alternatives, such as rail, logistical improvements, and changes in pipeline capacity. A number of projects to add or expand and extend existing pipelines are currently planned with significant new capacity projected to be available around 2015. There can be no certainty, however, that investments will be made or that regulatory approvals will be received to provide this capacity or that current capacity will not encounter continuing operational incidents. In addition, planned or unplanned shutdowns, reduced processing rates or closures of our refinery customers may limit our ability to deliver SCO.

***Marketing and transportation of SCO***

A significant volume of SCO is sold to customers beyond Edmonton, Alberta to Eastern Canada and the United States. As such, pipeline and rail access and capacity, transportation tariffs, market access and price differentials with competing products are all factors that can affect sales volumes and the realized selling price for SCO. As crude oil production rises and traditional light crude oil refineries execute projects to refine heavy and sour crudes, we anticipate SCO will be consumed at more distant delivery points. Pipeline transportation costs will rise, and COS' price realization will be impacted by those costs as well as supply and demand factors in those extended markets. As a result, there can be no assurance that the selling price realized for SCO by Canadian Oil Sands will not be negatively impacted in the future.

SCO is carried on pipelines and potentially in the future on railways that cross environmentally sensitive areas, including without limitation, the Athabasca River. Any spill of SCO into such environmentally sensitive areas could have a negative impact on the environment, our reputation and our ability to transport SCO and potentially expose Canadian Oil Sands to clean up costs.



In the coming years, planned oil projects and additional drilling will likely result in additional crude oil entering the market. There can be no assurance that existing transportation systems will be sufficient to handle this additional production or that new transportation systems will be built in time or at all.

***There are a number of risks associated with the Syncrude operations that could have a material adverse impact on Canadian Oil Sands***

Currently, our interest in the Syncrude Project comprises substantially all of our assets and generates all of our cash flow from operations. The Syncrude Project is a single highly integrated facility. The prolonged shutdown of any unit within the Syncrude Project could significantly impact the production of SCO. A shutdown may reduce, or even eliminate our cash flow from operations. Also, complications could arise when new systems are integrated with existing systems and facilities. The risk of such complications is somewhat mitigated by Syncrude's procedures of performing a sequenced start-up of units. However, there can be no assurance that the Syncrude Project will produce SCO in the quantities or at the cost anticipated, or that it will not cease producing entirely in certain circumstances.

Operating expenses to produce SCO are higher than operating expenses to produce conventional crude oil. An increase in operating expenses could have a material adverse effect on Canadian Oil Sands, our net income and cash flow from operations. The majority of Syncrude's operating expenses are fixed therefore, reduction in production volumes directly impact our operating margins.

The Syncrude Project is located in an area which is serviced by one all-weather provincial highway from Fort McMurray. In the event that the road is closed due to climatic conditions or other factors for a prolonged period of time, SCL may encounter difficulties in obtaining materials and labour required for it to continue production.

As the Syncrude Project is our only material producing asset, any major incident, either operational or otherwise, involving Syncrude's operations or the pipelines which transport our product could result in a substantial or total reduction in sales of our product for a prolonged time frame, which would have a material impact on our ability to generate cash flow from operations until operations could be resumed.

The geology of the oil sands and the limestone base under the oil sands could pose the risk of underground aquifers entering and flooding the mine area, thereby reducing the amount of ore available for mining and reducing tailings storage capacity.

The production of SCO requires high levels of investment and has particular risks, such as settling basin dyke failures, fires, explosions, gaseous leaks, spills and migration of harmful substances, any of which can cause personal injury, damage to property, equipment and the environment, and result in the interruption of operations.

There are limited assurances that current and currently under development reclamation technologies associated with the fluid fine tailings will meet the tailings management criteria established in Directive 074, which may result in enforcement actions ranging from non-compliance fees to increased inspections and suspensions or cancellations of approvals in addition to new investments in research or new tailings treatment facilities.

Syncrude produces and stores significant amounts of sulphur in sulphur blocks at its plant site because production has historically exceeded sales and may continue to do so in the future. There can be no assurance that future environmental regulations pertaining to the use, storage, handling and/or disposal of sulphur will not adversely impact the unit costs of production of SCO.

Syncrude strives for a safe operation and over its 34 year history has had a strong safety record. However, personal injuries and deaths unfortunately do happen. Injuries or deaths may occur at Syncrude, which could result in financial, regulatory or criminal penalties.

***Public perception of Canada's oil sands may have a negative impact on Syncrude's operations and Canadian Oil Sands' business***

Development of Canada's oil sands has received significant attention in political, media and activist commentary on the subject of climate change, greenhouse gas emissions, water usage, land reclamation and impacts on local stakeholders. Public concerns regarding such issues may directly or indirectly have a negative impact on the profitability of Canadian Oil Sands by: (i) motivating extraordinary environmental and emissions regulation by governmental authorities, which could result in changes to Syncrude's operating requirements, thereby potentially increasing the cost of operation and reclamation and closure; (ii) compelling legislation or policy that limits the purchase of crude oil produced from Canada's oil sands by governments or other consumers, which, in turn, may limit the market for SCO and reduce its price; and (iii) resulting in proposed pipelines not being able to receive the necessary permits and approvals, which, in turn, may limit the transportation for SCO and reduce its price.

***Canadian Oil Sands may be impacted by risks inherent in the execution of and/or integration of a major project into existing operations***

There are certain risks associated with the execution of Syncrude's major projects, including without limitation, the SER project, mine train relocations/replacements, the composite tails plant, the centrifuge plant and future growth and development projects. These risks include: our ability to obtain the necessary environmental and other regulatory approvals; risks relating to schedule, resources and costs, including the availability and cost of materials, equipment and qualified personnel, especially skilled construction and engineering labour; the impact of general economic, business and market conditions; the impact of weather conditions; our ability to finance growth if commodity prices were to stay at low levels for an extended period; the impact of new entrants to the oil sands business which could take the form of competition for skilled people, increased demands on the Wood Buffalo Region, Alberta infrastructure (for example, housing, roads and schools) and price competition for products sold into the marketplace; and the effect of changing government regulation and public expectations in relation to the impact of oil sands development on the environment.

The commissioning and integration of new facilities and the execution of major projects within an operating plant present issues that require risk management. For example, the mine train relocations and replacements are necessary to support mine development advances and for the placement of consolidated tailings in pit. If the mine trains are not relocated on time, there is a risk that Syncrude will not be able to place tailings, and therefore produce planned levels of bitumen, for some period. In addition, while production rates are not expected to be impacted by the Aurora North mine train relocations, there will be some risk during the relocations that the two operating units may experience an outage which could impact production.

***Capital projects may experience cost overruns***

There is a risk associated with providing cost estimates for major projects. Canadian Oil Sands often provides estimates for Syncrude's major projects, which encompass the conceptual stage through to final scope design, including cost estimates based on detailed engineering; however, these projects typically evolve over time and updates for significant timing and cost estimate changes may be required during project construction. At each stage of these major projects, cost estimates involve uncertainties. Accordingly, actual costs can vary from these estimates and these differences can be significant. Further,

there is a risk that maintenance at Syncrude will be required more often than currently planned or that significant capital projects could arise that were not previously anticipated.

***Operating and capital costs may increase***

We face risks associated with competition amongst other oil sands producers for limited resources, in particular skilled labour, in the Fort McMurray area where Syncrude and other oil sands producers operate. The demand for these resources creates costs pressure on products and services to operate, maintain and grow Syncrude's facilities. If operating and capital costs increase materially, such increases will have an adverse effect on the business and financial condition of Canadian Oil Sands.

***Syncrude is subject to environmental legislation in all jurisdictions in which it operates and any changes in such legislation could negatively affect its operations and Canadian Oil Sands' financial results***

Each of the Syncrude Participants is liable for its share of the obligations for the ultimate reclamation and closure of the Syncrude Project site upon abandonment. While the Ownership and Management Agreement that created the Syncrude Joint Venture is very clear that all obligations are several and not joint, actual legislation may specifically impose joint and several liability on every owner.

As the Syncrude operations involve the use of water and the emission of sulphur dioxide and other pollutants and greenhouse gases such as carbon dioxide (CO<sub>2</sub>), legislation which significantly restricts or penalizes current production levels would have a material impact on our operations. While Syncrude is focused on reducing these emissions on a per barrel basis, no assurance can be given that existing or future environmental regulations will not adversely impact the ability of the Syncrude Project to operate at present levels or increase production, or that such regulations will not result in higher unit costs of production.

The LARP requires a cumulative effects management approach which involves managing air, water and biodiversity through management frameworks that set environmental limits and triggers. Syncrude will have to address these effects in their regulatory submissions for new and existing projects. Some of the key management frameworks are not complete so the full impact of the LARP on resource development is not yet known. While the existing management frameworks should not affect Syncrude's existing approvals or its operations in the short-term, regional initiatives may be required in the future to ensure that cumulative effects remain below the thresholds contained in the management frameworks. This could adversely impact the ability of Syncrude to operate at present levels or increase production, or result in higher unit costs of production.

Syncrude produces a significant volume of fluid fine tailings, which are presently held in settling basins. Syncrude's closure and reclamation plan and thus its ERCB approval depends on the use of composite tails, centrifuge and end pit lakes technology to manage tailings fluids and solids associated with bitumen production. There is an inherent risk that such technologies used by Syncrude and most other oil sands producers may not be as effective as desired or perform as required in order to meet the approved closure and reclamation plan. Current initiatives undertaken by Syncrude include the development of the Base Mine Lake demonstration project, implementation of composite tails at Aurora North, implementation of fluid fine tailings centrifugation technology at Mildred Lake, and other sustaining projects such as in-pit containment construction and mine facilities relocations within the mining/tailings footprints.

Directive 074 allows the ERCB to take enforcement action against companies that fail to meet industry-wide tailings management criteria. Enforcement actions range from non-compliance fees to increased inspections and suspension or cancellation of approvals. It is noteworthy that Directive 074 is performance-based, and gives companies the flexibility to select the technology most applicable to their operation in order to achieve the performance criteria.

While Syncrude continues to develop tailings and fluid fine tailings reclamation technologies, there is a risk of increased costs to develop and implement various measures, the potential for tailings specific regulatory approval conditions to be attached to future regulatory applications and/or renewals and a risk that Syncrude's approvals could be suspended or cancelled if it cannot comply with the requirements of Directive 074, all which could have a material adverse effect on Canadian Oil Sands' business and financial condition.

***The Syncrude Project's operations are subject to extensive government regulation; the costs of compliance with additional government regulation and the cancellation of government licenses and leases could have a material adverse effect on Canadian Oil Sands***

The Syncrude Project's mining, extraction, upgrading and utilities activities are subject to extensive Canadian federal, provincial and local laws and regulations governing exploration, development, transportation, production, exports, labour standards, occupational health, waste disposal, water usage, protection and reclamation of the environment, safety, hazardous materials, toxic substances and other matters. We believe that SCL is in substantial compliance with all applicable laws and regulations. Amendments to current laws and regulations governing operations and activities of mining and refining companies and the more stringent implementation thereof are actively considered from time to time and the implementation thereof could have a material adverse impact on the Syncrude Project. There can be no assurance that the various government licenses granted to the Syncrude Project will not be cancelled or will be renewed upon expiry or that income tax laws and government incentive programs relating to the Syncrude Project, and the mining and oil and gas industries generally, will not be changed in a manner which may adversely affect Canadian Oil Sands. The Syncrude Project facility approval granted by the AEUB expires on December 31, 2035 unless extended. There can be no assurance that Syncrude will continue to meet the conditions of its leases. If Syncrude cannot meet the conditions of its leases, such leases may be cancelled which would have a material adverse impact on the Syncrude Project and Canadian Oil Sands. There can also be no assurance that the Alberta government will not make changes to the Crown royalty regime that would negatively affect our cash flow from operations.

***The benefits and expected results from the MSA may not materialize***

The MSA may be cancelled by either SCL or Imperial Oil on 24 months' notice. In addition, as with any service arrangement, especially one involving complex operations such as exist at Syncrude, the expected benefits and improvements in reliability, safety and energy efficiency may not be realized.

***Canadian Oil Sands has exposure to financial market risk***

Canadian Oil Sands is subject to financial market risk as a result of fluctuations in foreign currency rates, interest rates, credit risks and liquidity.

***Foreign Currency Risk***

Canadian Oil Sands' results are affected by fluctuations in the U.S./Canadian currency exchange rates as we generate revenue from oil sales based on a WTI benchmark price in U.S. dollars, while operating expenses and capital costs are denominated primarily in Canadian dollars. Over the last two years, the U.S. to Canadian dollar exchange rate has ranged from a low of \$0.94 U.S./Cdn to a high of \$1.06 U.S./Cdn. Our sales exposure is partially offset by U.S. dollar obligations, such as interest costs on U.S. dollar denominated long-term debt (being the outstanding Senior Notes of the Corporation) and our share of Syncrude's U.S. dollar vendor payments. In addition, when our U.S. dollar denominated Senior Notes mature, we have exposure to U.S. dollar exchange rates on the principal repayment of the Senior Notes. This repayment of U.S. dollar debt acts as a partial financial hedge against the U.S. dollar denominated sales receipts we collect from our customers.

To the extent that Canadian Oil Sands issues debt securities denominated in foreign currencies, such an investment may entail significant risks that are not associated with a similar security denominated in Canadian dollars. Such risks include, without limitation, the possibility of significant changes in rates of exchange between the Canadian dollar and the various foreign currencies and the possibility of the imposition of currency controls by either the Canadian or foreign governments. These risks will vary depending upon the currency or currencies involved. At December 31, 2012, Canadian Oil Sands only had U.S. dollar denominated debt.

#### *Interest Rate Risk*

Canadian Oil Sands' financial results are impacted by U.S. and Canadian interest rate changes as our credit facilities and investments are exposed to floating interest rates. In addition, we are exposed to interest rate risk upon the refinancing of maturing long-term debt at prevailing interest rates. As at December 31, 2012, no amounts were drawn on our credit facilities and our next Senior Note maturity in August 2013 was refinanced with the issuance of the 2012 Senior Notes. The Corporation also did not have a significant exposure to interest rate risk due to the short term nature of its investments and having no outstanding floating rate debt during the year.

#### *Credit Risk*

Canadian Oil Sands is exposed to credit risk primarily through customer accounts receivable balances, financial counterparties with whom the Corporation has invested its cash and cash equivalents and with its insurance providers in the event of an outstanding claim. The maximum exposure to any one customer or financial counterparty is controlled through a credit policy.

#### *Liquidity Risk*

Liquidity risk is the risk that Canadian Oil Sands will not be able to meet its financial obligations as they fall due. We are exposed to liquidity risk to the extent we have financing requirements related to significant capital or operating commitments. Our August, 2013 Senior Note maturity was refinanced with the issuance of the 2012 Senior Notes, and the next Senior Note maturity is in 2019. However, Canadian Oil Sands had approximately \$1,550 million in cash and cash equivalents and had \$1,540 million of unused credit facilities as at December 31, 2012 available to meet operating and capital requirements. Despite our strong liquidity position, an inability to access the credit markets or equity markets combined with a sustained downturn in crude oil prices may seriously impact the Corporation's liquidity.

#### ***Deteriorating conditions in the credit markets may adversely affect business***

The ability to make scheduled payments on or to refinance debt obligations depends on the financial condition and operating performance of the Corporation, which is subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond its control. Volatility in the credit markets may increase costs associated with debt instruments due to increased spreads over relevant interest rate benchmarks, or affect the Corporation's, or third parties that the Corporation seeks to do business with, ability to access those markets. The Corporation may be unable to maintain a level of cash flow from operations sufficient to permit it to pay the principal, premium, if any, and interest on its indebtedness. In addition, there may be volatility in the capital markets and access to financing, although currently available, can be uncertain. These conditions could have an adverse effect on the industry in which the Corporation operates and its business, including future operating and financial results.

### ***The petroleum industry and energy sector are highly competitive***

The petroleum industry is highly competitive in all aspects, including the distribution and marketing of petroleum products. Substantially all of our production is currently consumed by refineries in Canada and the United States for further processing into refined products. We compete for these markets against world-wide sources of crude oil and these refineries compete against other refineries and imported refined products. The price received for SCO or our ability to deliver SCO may be limited with negative implications on revenues and cash flow from operations if global supply of crude oil or refined products increases, North American and/or global demand for crude oil or products decreases, or if planned or unplanned shutdowns of refineries generally or of refineries that process SCO occurs.

An increase in supply of synthetic crude oil and other types of crude oil has come on stream in recent years. This supply is expected to further increase in 2013 and beyond. There is no guarantee there will be sufficient demand to absorb the increased supply without eroding the selling price, which could result in a deterioration of the price differential that Canadian Oil Sands may realize compared to benchmark crude oils such as WTI or European Brent Crude. Also, prices may decline to such an extent that our share of Syncrude's production is no longer economically viable. In response to growing volumes of crude oil, we have had to expand our markets to achieve the premium price we expect for our quality product. With the increased supply of crude oil, we may obtain a lower net realized selling price and will likely need to sell our product to refineries further from the source of production. This will increase transportation costs of the product and accordingly, the net realized selling price for our product may be negatively impacted. The petroleum industry also competes with other industries in supplying energy, fuel and related products to consumers.

In addition, the competition for skilled labour in the Wood Buffalo Region has put pressure on operating costs, recruiting, training and retaining the necessary personnel to operate Syncrude's facilities effectively and efficiently. Limitations on the availability of an experienced workforce, including high attrition rates, increases the risk of design or operator error. To help provide an adequate supply of trained labour in its operations in the future, SCL supports local Aboriginal communities, colleges, universities, trade schools and various levels of government to help people develop the skills and knowledge they need to enter the workforce. SCL is one of the largest employers of Aboriginal people in Canada. In addition, SCL recruits extensively across Canada and, to a lesser extent, around the world to bring new workers to the region. The MSA enables SCL to access people and expertise from Imperial Oil and its affiliates, including ExxonMobil. However, there is no assurance that the net impact of any of these actions will offset the potential loss of personnel due to attrition, an aging workforce population and the competition for skilled workers.

Any increase in world mining and manufacturing activity causes longer procurement lead times for many materials used in the Syncrude operation. Over the last several years, Syncrude has had to place even more emphasis on maintenance planning and scheduling activities, with special attention to ensuring adequate spare parts inventories are on hand at all times. Still, certain suppliers have been challenged to keep ahead of increasing demand for maintenance and operating materials. If Syncrude cannot obtain such materials for its operations, production will be impacted and correspondingly, the sales volumes and cash flow from operations for Canadian Oil Sands will be negatively impacted.

It is expected that the highly competitive environment in the Wood Buffalo Region will continue to be an ongoing issue in the years to come.

### ***The implementation of federal climate change regulations could increase Syncrude's operating expenses, capital costs and future development plans***

Numerous uncertainties remain regarding the impact of the Canadian federal government's sector-by sector review of GHG emissions and the impact such review will have on the oil sands

specifically. Additionally, lack of certainty regarding how any future federal climate change legislation will harmonize with the Alberta Specified Gas Emitters Regulation makes it difficult to ascertain the cost estimate of climate change regulation compliance, including when third party costs factor their way into Syncrude's supply chain of goods and services. There is no assurance that the cost impact to Syncrude and Canadian Oil Sands of federal climate change regulation will not be significant, which could result in a material adverse effect on our financial condition or our results or operations.

***International climate change legislation and regulation could negatively affect markets for crude and synthetic crude oil***

Environmental legislation and regulation in importing jurisdictions regulating the carbon content of fuels could result in increased costs and/or reduced revenue to the Corporation. For example, certain states in the United States, such as California, have passed or considered legislation which, in some circumstances, considers the lifecycle greenhouse gas emissions of purchased fuel and which may negatively affect marketing of Syncrude products, or require the purchase of emissions credits in order to affect sales in such jurisdictions. In addition, the European Union is considering legislation that would assign a higher carbon value for unconventional crude oil such as oil sands. While Canadian Oil Sands does not currently sell SCO to Europe, the passing of such legislation may set a precedent for other countries wishing to adopt legislation or regulations that specifically target unconventional crude oils such as oil sands crude oil.

***Canadian Oil Sands will not be economically viable if reserves from the Syncrude Project cannot be economically produced and marketed***

Currently, our investment in the Syncrude Project is our only producing asset. Market fluctuations of crude oil prices or cost increases may render uneconomic the mining, extraction and upgrading of oil sands reserves containing relatively lower grades of bitumen. Moreover, short term factors relating to the oil sands reserves, such as the need for orderly development of ore bodies or the processing of new or different grades of ore, may impair the profitability of a mine and upgrading facility in any particular period.

***Certain aspects relating to oil reserves and resources data and future net revenue estimates are uncertain***

The reserves, contingent resources and prospective resources figures contained or incorporated by reference into this AIF are estimates and no assurance can be given that the indicated level of recovery of SCO will be realized. Reserves, contingent resources and prospective resources may require revision based on actual production experience, further drilling, changes to development plans, and several other factors. Such figures have been determined based upon estimates of yield and recovery factors as well as estimates of bitumen in place. Any estimates presented herein are to some degree uncertain, and classifications of reserves are only attempts to define the degree of uncertainty involved. For these reasons, estimates of the economically recoverable reserves or resources, prepared by different engineers or by the same engineers at different times, may vary. Canadian Oil Sands' actual production, revenues and development and operating expenditures with respect to its reserves, contingent resources and prospective resources figures may vary the estimates. As well, the estimates of future net revenues are dependent on estimates of future oil prices, capital and operating expenses. Variances to actual costs may be significant. As such, these estimates are subject to changes in the economic environment at the time and variances in future budgets and operating plans.

The estimates of reserves, contingent resources and prospective resources included in the reserves and resources data are calculated in accordance with Canadian practices and may not be directly comparable to practices in other jurisdictions. In addition, the procedures used to estimate reserves from the Syncrude Project are not directly comparable to the procedures used to estimate conventional reserves.

***An increase in natural gas prices or shortages in the supply of natural gas could have an adverse effect on Canadian Oil Sands***

The financial condition, operating results and future growth of Canadian Oil Sands is substantially affected by the price and availability of natural gas. Natural gas is used in material quantities as a feed stock in the Syncrude Project primarily for the production of hydrogen and to a lesser extent as a fuel for the generation of heat, steam and power. The price of natural gas is subject to large variations based on supply and demand for natural gas in North America. SCL and Canadian Oil Sands have no control over such prices. A prolonged period of high natural gas prices or a material increase in natural gas prices could have an adverse effect on the profitability and cash flow from operations of Canadian Oil Sands. Additionally, in Alberta, there could be a restriction on the amount of natural gas available in the future, which would impact production and the operating expenses for Canadian Oil Sands.

Purchased natural gas is a significant component of the bitumen production and upgrading processes. Increases in natural gas prices therefore introduce the risk of significantly higher operating expenses. Similar to crude oil prices, natural gas prices also have experienced volatility over the last two years, from a high of approximately AECO \$4.15 per GJ to a low of approximately AECO \$1.43 per GJ. To the extent crude oil prices and natural gas prices move together, the risk of natural gas price increases is mitigated as the Corporation is significantly more levered to oil prices. However, technological advances have unlocked significant new supply of natural gas, resulting in relatively low natural gas prices compared to crude oil prices suggesting that, at least in the near term, there is a reduced risk of higher natural gas prices.

***Certain decisions regarding the operation of the Syncrude Project require unanimous agreement among the other Syncrude Participants***

The Syncrude Project is a joint venture currently owned by seven Syncrude Participants. Each Syncrude Participant is entitled to one vote. Operating decisions and those relating to debottlenecking matters require a 51 per cent majority with at least three Syncrude Participants' approving while major growth decisions outside of the original scope of the operations as well as producing multiple products rather than a single product require unanimous approval. Canadian Oil Sands, through COSP, has a representative who chairs Syncrude's Management Committee, which is a committee of the Syncrude Participants that determines the oversight of the Syncrude Joint Venture. Future plans of the Syncrude Project will depend on such agreement and may depend on the financial strength and views of the other Syncrude Participants at the time such decisions are made.

***Canadian Oil Sands and Syncrude may face potential unknown liabilities***

There may be unknown liabilities assumed by the Corporation through its direct and indirect interests in Syncrude and through its other subsidiaries (including Canadian Arctic), including those associated with prior drilling in Northern Canada as well as environmental issues, Crown royalty issues or tax issues. The discovery of any material unknown liabilities could have an adverse affect on the financial condition of Canadian Oil Sands.

***Canadian Oil Sands' insurance may not provide adequate coverage in all circumstances***

Syncrude may experience an event causing a loss or interruption of production, such as a fire or explosion at the operating facilities. Although we maintain a risk management program, which includes an insurance component, consisting primarily of business interruption and property insurance, such insurance is unlikely to fully protect against catastrophic events or prolonged shutdowns. Losses beyond the scope of our insurance could have a material adverse effect on our business, financial condition, results of operations and cash flow from operations.



## **Risks Relating to the Corporation or Common Shares**

### ***Dividends are variable***

Dividends to Shareholders are a function of numerous factors including, but not limited to: the Corporation's financial performance; debt covenants and obligations; working capital requirements; future non-discretionary capital expenditures and future expansion capital expenditure requirements; current and potential future environmental liabilities; tax obligations; the impact of interest rates and/or foreign exchange rates; the growth of the general economy; the price of crude oil and natural gas and the number of Common Shares issued and outstanding. Dividends may be increased, reduced or suspended or eliminated entirely depending on Canadian Oil Sands' operations and the performance of its assets. The market value of Common Shares may deteriorate if the Corporation is unable to meet dividend expectations and that deterioration may be material.

### ***The price of Common Shares may experience volatility***

The price of Common Shares may be volatile. Some of the factors that could affect the price of the Common Shares are quarterly increases or decreases in revenues or cash flow from operations, production levels, operating expenses, changes in dividends made by the Corporation, changes in revenues or other estimates by the investment community, the ability of the Corporation to implement its strategy and speculation in the press or investment community about the Corporation's financial condition or results of operations. Crude oil prices, general market conditions and Canadian, United States or international economic factors and political events unrelated to the performance of the Corporation may also affect the price of Common Shares. For these reasons, investors should not rely on past trends in the price of Common Shares to predict the future price of Common Shares or the Corporation's financial results.

### ***The Corporation's debt service obligations may limit the amount of cash available for dividends***

The Corporation and its affiliates may, from time to time, finance a significant portion of their growth (either from acquisitions or capital expenditure additions) and operations through debt. Variations in interest rates and scheduled principal repayments could result in significant changes in the amount required to be applied to service debt. This may result in lower levels of cash available for dividends by the Corporation. Ultimately, subordination agreements or other debt obligations, including the terms of any credit facilities could preclude dividends altogether.

### ***The Corporation cannot provide unequivocal assurance that it is not a passive foreign investment company for United States federal income tax purposes***

While the Corporation believes that it is reasonable to take the position that it is presently not a passive foreign investment company (a "PFIC") for United States federal income tax purposes, we cannot provide unequivocal assurance that the United States Internal Revenue Service will not take a different view. The Corporation, as the managing partner of COSP, has employees that are actively engaged in managing COSP's investment in Syncrude and also market COSP's share of SCO production. However, if United States authorities view this activity as "passive", then U.S. Holders (as defined below) may be subject to additional taxes and would be subject to additional filing requirements. In addition, PFIC status is fundamentally factual in nature, is determined annually and generally cannot be determined until the close of the taxable year in question.

For the purposes of this AIF, the term “U.S. Holder” means a beneficial owner of Common Shares that is:

- (a) a citizen or individual resident of the United States as determined for United States federal income tax purposes; or
- (b) a corporation or other entity treated as a corporation for United States federal income tax purposes, created or organized in or under the laws of the United States or any State or the District of Columbia; or
- (c) an estate that is subject to United States federal income tax on its income regardless of its source; or
- (d) a trust if a United States court has preliminary supervision over its administration and one or more United States persons have the authority to control all substantial decisions of the trust, or if the trust has a valid election in effect under applicable Treasury Regulations to be treated as a United States person.

***If the Corporation does not constitute a “qualified foreign corporation” for United States federal income tax purposes, individual U.S. Holders may be taxed at a higher rate on dividends***

Management expects that dividends it pays to non-corporate U.S. Holders (including individual U.S. Holders) will be treated as qualified dividend income eligible for preferential income tax rates (currently at a maximum rate of 20 per cent) if certain holding period and other requirements are met. However, if the Corporation does not constitute a “qualified foreign corporation” for United States federal income tax purposes, and as a result such dividends to non-corporate U.S. Holders do not qualify for a preferential income tax rate, such holders will be subject to tax on such dividends at ordinary income rates (currently at a maximum rate of 39.6 per cent).

## **RESERVES DATA AND OTHER INFORMATION**

National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* (“NI 51-101”) establishes a regime of continuous disclosure for oil and gas companies and includes specific reporting requirements. Canadian Oil Sands’ year-end reserves report summarized in this AIF is compliant with NI 51-101.

In conjunction with NI 51-101, the Standing Committee on Reserves Evaluation of the Calgary Chapter of the Society of Petroleum Evaluation Engineers and the Standing Committee on Reserves Definitions of the Canadian Institute of Mining, Metallurgy and Petroleum developed the Canadian Oil and Gas Evaluation Handbook (“COGEH”) to serve as the guidelines for conducting reserves evaluations and reporting the results thereof. Canadian securities regulators require reporting issuers to comply with the COGEH, as amended from time to time.

To assist you in understanding the terminology required by NI 51-101, we are providing the following definitions:

**Proved Reserves** are those reserves that can be estimated with a high degree of certainty to be recoverable. NI 51-101 further identifies the certainty level for proved reserves as “at least a 90 per cent probability that the quantities actually recovered will equal or exceed the estimated proved reserves”.

**Proved plus Probable Reserves** are those additional reserves that are less certain to be recovered than proved reserves. NI 51-101 defines the certainty level as “at least a 50 per cent probability

that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves.” Therefore, under NI 51-101, the proved plus probable reserves represent a “best estimate” or “expected reserves”.

**Gross Reserves** are reserves before deducting Alberta Crown royalty obligations, and **Net Reserves** are reserves after deducting such obligations.

Developed proved reserves correspond to volumes recoverable through installed extraction equipment and infrastructure operational at the time of the reserves estimate. Capital projects required to support the existing production capacity levels are generally considered by GLJ Petroleum Consultants Ltd. (“GLJ”) and the industry to be sustaining in nature unless they result in material production growth. While sustaining capital may be significant in terms of the absolute level of expenditure required, the need for sustaining capital is not considered by GLJ to affect the classification of reserves as developed.

All reserves information in this section is based on Canadian Oil Sands’ working interest of 36.74 per cent in the Syncrude Joint Venture as at December 31, 2012. Based on an independent engineering evaluation conducted by GLJ effective December 31, 2012 and prepared in accordance with NI 51-101, Canadian Oil Sands had proved plus probable reserves of 1.7 billion barrels. Proved developed producing reserves represent 47 per cent of proved plus probable reserves. Proved non-producing reserves have not been assigned. Canadian Oil Sands currently produces only one product type, namely SCO. For the purposes of the reserve evaluation, the probable reserves in the undeveloped Aurora South leases are currently anticipated to be developed by the early 2020s using the same technologies as those in place at the current developed mines. Additional or alternative technologies may be considered.

Our crude oil reserves quantities and future net revenues were determined by GLJ utilizing GLJ’s price forecast as of January 1, 2013. The reserves estimates were constrained to areas where Syncrude currently has approvals to mine. The future net revenues shown below are based on the current Alberta oil sands royalty regulations as modified by the Amended Royalty Agreement (See the “*Crown Royalties*” section of this AIF) and are prior to provisions for currency hedging, interest, debt service charges, general and administrative costs, insurance, and mine and upgrader facilities reclamation and closure costs. It should not be assumed that the estimated discounted future net revenues represent the fair market value of the reserves. The effective date of the reserves estimate and revenue projection in this AIF is December 31, 2012.

The estimates of reserves and projections of production were generally prepared using data to December 31, 2012. The GLJ report preparation date is February 5, 2013 and the report is dated February 20, 2013. Canadian Oil Sands provided GLJ with a representation letter confirming that complete and correct information has been provided to GLJ.

### **Significant Factors or Uncertainties Affecting Reserves Data**

The reserves quantities and future net revenues set out in this AIF are dependent upon a number of assumptions and estimates. They are also subject to risks and uncertainties regarding crude oil prices, including the realized selling price that Canadian Oil Sands receives relative to Edmonton Par and the value of bitumen determined according to the Alberta Bitumen Valuation Methodology, any impact of announced or potential environmental legislation or sanctions that may be imposed and various other factors outlined in this AIF, including the operational and development cost risks, and the impact that the timing and costs of developing Aurora South may have. We refer you to the “*Risk Factors*” section of this AIF for the full discussion of these risks and uncertainties. We also refer you to the “*Crown Royalties*” section of this AIF for a more detailed discussion of the Alberta Crown royalty terms. In addition, the evaluation does not consider the potential impact of Syncrude’s research efforts and new technology developments.

## Summary of Reserves as at December 31, 2012

### Forecast Prices and Costs <sup>(1)(2)(3)(4)</sup>

Reserves Category	Synthetic Crude Oil Reserves <sup>(3)</sup>		Before Income Taxes				
	Gross million bbls	Net million bbls	Future Net Revenue Discounted (\$ millions) <sup>(5)</sup>				
			0%	5%	10%	15%	20%
Proved Developed Producing	801	693	23,842	13,576	8,855	6,363	4,891
Proved Developed Nonproducing	-	-	-	-	-	-	-
Total Proved	801	693	23,842	13,576	8,855	6,363	4,891
Probable	895	774	38,431	9,617	3,278	1,489	863
Total Proved Plus Probable	1,696	1,467	62,273	23,193	12,133	7,852	5,754

Reserves Category	Synthetic Crude Oil Reserves <sup>(3)</sup>		After Income Taxes <sup>(6)</sup>				
	Gross million bbls	Net million bbls	Future Net Revenue Discounted (\$ millions)				
			0%	5%	10%	15%	20%
Proved Developed Producing	801	693	17,752	9,969	6,388	4,501	3,388
Proved Developed Nonproducing	-	-	-	-	-	-	-
Total Proved	801	693	17,752	9,969	6,388	4,501	3,388
Probable	895	774	28,714	6,996	2,270	969	535
Total Proved Plus Probable	1,696	1,467	46,466	16,964	8,658	5,470	3,923

#### Notes:

- (1) COSP accounts for 100 per cent of the gross and net reserves shown; there are no proved undeveloped reserves.
- (2) The estimates of future net revenue values do not represent fair market value.
- (3) Figures may not add correctly due to rounding.
- (4) Proved plus probable reserves are based on SCL's mine plans which generally reflect a total volume to bitumen in place (TV:BIP) of 14 to 1 to the base of the pit wall.
- (5) The before income tax future net revenue discounted at 10 per cent on a \$/bbl (net) basis for each category is as follows:

	<u>\$/bbl</u>
Proved developed producing	\$12.78
Proved developed non producing	\$ -
Total proved	\$12.78
Probable	\$ 4.24
<b>Total proved plus probable</b>	<b>\$ 8.27</b>

- (6) Income taxes have been calculated assuming the statutory tax rate of 25% and tax pools available at December 31, 2012 of approximately \$550 million is deductible at a 25% per year declining balance. See "Income Tax" on page 45.

**Total Future Net Revenue (Undiscounted Forecast Prices and Costs)<sup>(1)(2)(3)</sup>**

(\$ Millions)

Reserves Category	Revenue	Royalties	Operating Costs	Capital Development Costs	Reclamation and Closure Costs	Future Net Revenues Before Income Taxes	Income Tax	Future Net Revenues After Income Taxes
Proved Developed Producing	90,306	12,473	42,446	11,546	-	23,842	6,090	17,752
Proved Developed Nonproducing	-	-	-	-	-	-	-	-
Total Proved	90,306	12,473	42,446	11,546	-	23,842	6,090	17,752
Total Probable	139,892	19,703	62,272	19,484	-	38,431	9,717	28,714
Total Proved Plus Probable	230,198	32,176	104,718	31,030	-	62,273	15,807	46,466

**Notes:**

- (1) Figures may not add correctly due to rounding.
- (2) The estimates of future net revenue values do not represent fair market value.
- (3) Reclamation and closure costs were not considered in GLJ's evaluation. Future reclamation and closure costs including estimated costs to reclaim the mines and upgrader site for proved reserves are estimated at \$2,104 million and for proved plus probable reserves at \$2,819 million. See "Reclamation and Closure" on page 44.

**Forecast Prices Used in Estimates**

The forecast reference prices used in preparing Canadian Oil Sands' reserves data are provided in the table below and are the price forecasts as of January 1, 2013 of GLJ, the independent reserves evaluator of Canadian Oil Sands. The forecast bitumen prices at Syncrude are also provided. The Syncrude plant gate SCO price is expected to correspond to "Light Sweet Crude Oil at Edmonton" plus a premium of \$3.00 per barrel (e.g. \$88.00 per barrel in 2013).

Year	Inflation (%)	Exchange Rate (\$US/\$Cdn)	WTI Crude Oil at Cushing Oklahoma (\$US/bbl)	Light, Sweet Crude Oil at Edmonton (40° API, 0.3% S) ("Edmonton Par") (\$Cdn/bbl)	AECO-C Spot Gas (\$/MMBTU)	Bitumen Price at Syncrude Project <sup>(1)</sup> (\$Cdn/bbl)
2013	2.0	1.00	90.00	85.00	3.38	52.68
2014	2.0	1.00	92.50	91.50	3.83	60.92
2015	2.0	1.00	95.00	94.00	4.28	64.04
2016	2.0	1.00	97.50	96.50	4.73	69.30
2017	2.0	1.00	97.50	96.50	4.95	69.30
2018	2.0	1.00	97.50	96.50	5.22	69.29
2019	2.0	1.00	98.54	97.54	5.32	70.05
2020	2.0	1.00	100.51	99.51	5.43	71.48
2021	2.0	1.00	102.52	101.52	5.54	72.95
2022	2.0	1.00	104.57	103.57	5.64	74.44
2023+	2.0	1.00	+2.0%/yr	+2.0%/yr	+2.0%/yr	+2.0%/yr

**Note:**

- (1) Forecast bitumen prices are used to estimate Crown royalties. Forecast annual bitumen prices at the Syncrude Project are variable but over the life of the project the average price is projected at approximately 72 per cent of the Light Sweet Crude Oil at Edmonton price.

In 2012, Canadian Oil Sands received a weighted average price of \$91.90 per barrel (after crude oil purchases and transportation expense) for SCO.

### Reconciliation of Reserves by Principal Product Type Based on Forecast Prices and Costs

The following table sets forth a reconciliation of the changes in our working interest reserve volumes before deducting Alberta Crown royalties as at December 31, 2012 against such reserves as at December 31, 2011 based on the above-noted forecast prices and costs assumptions:

<b>Total Oil Reserves</b>			
<b>Synthetic Crude Oil (Gross)</b>			
	<b>Proved</b>	<b>Probable</b>	<b>Proved Plus Probable</b>
	<b>(million bbl)</b>	<b>(million bbl)</b>	<b>(million bbl)</b>
At December 31, 2011	848	914	1,762
Technical Revisions	(8)	(19)	(27)
Production	(39)	-	(39)
At December 31, 2012	801	895	1,696

Currently only one product type, SCO, is being produced. For the purposes of the reserve evaluation, Aurora South is assumed to be developed utilizing naphthenic froth treatment with bitumen volumes used to feed the upgrader to produce SCO. Canadian Oil Sands together with the Syncrude Participants continue to work on development plans for the Aurora South leases and the development basis may be different than that assumed herein.

The probable reserves primarily reflect development of Aurora South, as well as improvements to both extraction recovery and upgrading yield.

### Undeveloped Reserves by Principal Product Type Based on Forecast Prices and Costs

The following table sets forth a summary of our undeveloped working interest SCO reserves that were first attributed in each of the most recent three financial years and, in the aggregate, before that time:

#### Undeveloped Synthetic Crude Oil (Million Barrels)

	<b>Proved</b>		<b>Probable</b>	
	<b>*First Attributed</b>	<b>Total at Year-end</b>	<b>*First Attributed</b>	<b>Total at Year-end</b>
Prior	-	-	807	807
2010	-	-	-	770
2011	-	-	-	805
2012	-	-	-	796

\* "First Attributed" refers to reserves first attributed at year-end of the corresponding fiscal year.

The probable undeveloped reserves relate solely to the Aurora South leases. The leases have conditional regulatory approvals in place and a relatively high drill density. The timing and the development basis will be driven by Syncrude Participant approval, market expectations for light/heavy oil price differentials, upgrader demand and the productive capacity associated with currently developed mine areas including the impact the proposed development of the resources relating to the MLX Project may have. The Aurora South leases are classified as probable rather than proved in view of the

significance of the associated development capital, the uncertainty that major capital spending will commence within the next several years, the development assumption that Aurora South will be needed to sustain bitumen feed to the upgrader to produce SCO and the requirement for Syncrude Participants approval.

### **Future Development Costs**

The following table sets forth the future development costs associated with the development of our reserves as set forth in the GLJ report. Development costs are expected to be funded from cash flow from operations, thus the cost of funding is not expected to affect the reserve balances or estimated future net revenues.

	<b>Total Proved Estimated Using Forecast Prices and Costs (\$ millions)</b>	<b>Total Proved Plus Probable Estimated Using Forecast Prices and Costs (\$ millions)</b>
2013	1,296	1,310
2014	1,239	1,253
2015	573	588
2016	419	460
2017	401	496
Remainder	7,618	26,923
Total for all years undiscounted	<u>\$ 11,546</u>	<u>\$ 31,030</u>
Total for all years discounted at 10% per year	<u>\$ 5,447</u>	<u>\$ 8,657</u>

### **Other Oil and Gas Information**

#### ***Costs Incurred***

The following table sets forth costs incurred by Canadian Oil Sands for the year ended December 31, 2012:

<b>Property Acquisition Costs (\$millions)</b>		<b>Exploration Costs (\$ millions)</b>	<b>Development Costs (\$ millions)</b>
<b>Proved Properties</b>	<b>Unproved Properties</b>		
Nil	Nil	Nil	\$994

#### ***Reclamation and Closure***

Canadian Oil Sands has reclamation and closure obligations relating to the mine sites, the utilities plants, extraction plants, and upgrading complex. Canadian Oil Sands estimates that future reclamation and closure costs, net of salvage, on an undiscounted current cost basis to amount to \$2,104 million (\$344 million at a 10 per cent discount rate) for proved reserves and \$2,819 million (\$465 million at a 10 per cent discount rate) for proved plus probable reserves. These estimates are based on prevailing industry conditions, regulatory requirements and past experience.

Our share of the present value of reclamation and closure costs that require recognition in our financial statements at December 31, 2012 was approximately \$1,102 million (discounted at 2.25 per cent). We estimate our share of these costs over the next three years to be approximately \$132 million.

These liabilities relate to our 36.74 per cent working interest at December 31, 2012 in Syncrude's future reclamation and closure costs for the Base, North and Aurora North mines and related facilities (which includes the Mildred Lake upgrader), but exclude Aurora South as no disturbance has yet occurred on those leases. In estimating the future net revenue, GLJ has not included any reclamation and closure costs in the GLJ reserve report.

### ***Income Tax***

During 2012, Canadian Oil Sands incurred current income taxes for the first time. The future net revenue calculations include a provision for income taxes determined using the combined federal and provincial statutory corporate tax rate in Alberta of 25%. The calculation assumes that approximately \$550 million of tax pools were available at December 31, 2012, all of which are deductible at a 25% per year declining balance basis. All future development costs are added to the 25% per year declining balance pools. The after-tax net present value reflects the tax burden on the properties on a standalone basis. It does not consider the business entity level tax situation, or tax planning which may be significantly different.

### ***Crown Royalties***

The "*Crown Royalties*" section of this AIF discusses the major developments with respect to the Syncrude Project's Alberta Crown royalty terms. Please refer to the "*Crown Royalties*" section of this AIF for a detailed discussion of the Alberta Crown Royalty terms.

Net proved and probable reserves, before and after tax future net revenues and resources information presented in this AIF incorporate these royalty terms in the estimates. The reserves and future net revenues utilize GLJ's forecast Syncrude bitumen price summarized in the table on page 42. Over the project life, this is approximately 72 per cent of GLJ's forecast of light sweet crude oil prices at Edmonton. Syncrude's Alberta Crown royalties are highly sensitive to the deemed price of bitumen. Over the past five years, estimated average yearly prices for Syncrude bitumen using adjustments for quality, location and diluent consistent with the Alberta Bitumen Valuation Methodology have ranged from 62 per cent to 79 per cent of light sweet crude oil prices at Edmonton.

In determining Alberta Crown royalties, GLJ's December 31, 2012 reserve evaluation considers that 84 per cent of future development costs and 78 per cent of operating costs are related to the development and production of bitumen.

### ***Production Estimates***

GLJ's forecast of Canadian Oil Sands' production of SCO from the Syncrude Joint Venture for 2013 based on the information known at December 31, 2012 using forecast prices is presented below:

<u>Reserves Category</u>	Synthetic Crude Oil (millions of barrels)	
	<u>Gross</u>	<u>Net After Royalty</u>
Proved developed producing	39	37.8
Total proved	39	37.8
Total probable	2	1.8
Total proved plus probable	41	39.6



## ***Production History***

The following table sets forth certain information in respect of production, product prices received, operating expenses, royalties and netbacks received by the Corporation for each quarter of its most recently completed financial year.

	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>	<b>Year</b>
Average Daily Sales of SCO (bbls/d) <sup>(1)</sup>	108,108	89,597	113,331	111,669	105,680
Net Realized SCO Selling Price	97.07	90.45	89.89	89.99	91.90
Operating Expenses	(32.68)	(50.66)	(36.17)	(38.85)	(39.06)
Royalties	(9.71)	(2.05)	(3.16)	(5.57)	(5.21)
Netback	54.68	37.74	50.56	45.57	47.63

### **Note:**

- (1) The average daily volumes reported for 2012 represent Canadian Oil Sands' average daily sales, which differ from its average daily production volumes primarily due to changes in in-transit pipeline volumes.

## ***Reserve Life Index***

Canadian Oil Sands' estimated reserve life index using reserves prepared by GLJ and based on Canadian Oil Sands' January 31, 2013 guidance of approximately 110 million barrels per year of Syncrude production is as follows:

	<b>(Millions of barrels)</b>	<b>Index (Years)</b>
Total Proved Reserves	801	20
Proved Plus Probable Reserves	1,696	42

## **Resources**

In addition to the reserve definitions provided on page 39 of this AIF, we are providing the following definitions to assist you in understanding the terminology used in the following discussion of "Resources":

**Contingent Resources** are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies.

**Prospective Resources** are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery and a chance of development.

**Best Estimate** is a term used to describe an uncertainty category for resources estimates referring to the best estimate of the quantity that will actually be recovered. It is equally likely that the actual remaining quantities recovered will be greater or less than the "best estimate". The best estimate of contingent and prospective resources is prepared independent of the risks associated with achieving commercial production.

See page 11 of this AIF for an outline of the leases held by the Syncrude Joint Venture, which total about 251,000 acres of which approximately 130,000 acres relates to leases with no attributed

reserves. Based upon independent evaluations conducted by GLJ effective December 31, 2012, the gross proved plus probable reserves and best estimates of other resource classes are as follows:

(billions of barrels of SCO, gross)	<b>Syncrude Project</b>	<b>COS<sup>(1)</sup></b>
Proved plus probable reserves	4.6	1.7
Contingent resources – best estimate	5.2	1.9
Prospective resources – best estimate	1.6	0.6

**Note:**

(1) Based on the Corporation's indirect 36.74 per cent working interest in the leases.

### ***Contingent Resources***

The contingent resources are primarily associated with separate mine pits. The contingent resources do not generally have any technical contingencies that would prevent them from being classified as reserves. Specifically, the contingent resources assume the application of the same technologies as those in place at the current proved developed mines and the production of SCO. GLJ has not assessed the contingent resources for economic viability. However, the pit design assumptions utilized in preparing the estimates are within the ranges currently being considered by industry in applications for regulatory approval of comparable commercial surface mining developments and are also consistent with those utilized in the evaluation of the probable reserves assigned for the Aurora South leases. Therefore, Canadian Oil Sands considers the contingent resources to be economically viable under similar oil prices and operating conditions as considered in the reserve evaluation. However, there is no certainty that it will be commercially viable to produce any portion of the contingent resources, including those discussed below.

There are, however, non-technical contingencies that prevent the classification of the contingent resources as reserves. The contingent resources generally represent separate pits that are not currently planned to be developed within the next 10 years, and for which applications for regulatory approvals have not yet been submitted. During 2012, Canadian Oil Sands announced Syncrude's intention to pursue the development of the MLX project. This project is expected to enable Syncrude to access approximately 200 million barrels (SCO, net to Canadian Oil Sands) of contingent resource (best estimate) and should extend the life of mining operations at Mildred Lake by about a decade. A regulatory application is expected to be filed within the next few years and, pending regulatory approval, development spending would be expected to commence in the next ten years. A commitment on the part of the Syncrude Participants to accelerate the development of these resources and the submission of an application for regulatory approval is necessary before these resources would be considered by GLJ for reserves classification. To the extent the Syncrude Participants have not committed to develop any of the contingent resources, any decision to develop may reflect a different planning basis than utilized in preparing the estimates.

### ***Prospective Resources***

Prospective resources have significant additional risks relative to contingent resources. They are associated with specific areas within the Syncrude leases where existing well control is not sufficient, and it is believed that additional drilling could either result in the movement of these areas to contingent resources or their elimination from the assumed planning basis. Drilling within the areas of this continuous-type deposit that have been classified by GLJ as prospective is relatively exploratory at this point in time. GLJ's best estimate of prospective resources corresponds to 50 per cent of their modeled estimate and hence makes some adjustment for uncertainty in the model estimates. Nevertheless, there is no certainty that any portion of the prospective resources will be discovered. Furthermore, if discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective

resources. As well, certain portions of the prospective resources are on lands subject to an option held by third parties which, if exercised, may have a significant impact on the estimate of prospective resources.

Contingent and prospective resources generally reflect similar design assumptions to those used in the reserves estimates.

## **DIVIDENDS**

Dividend payments are determined on a quarterly basis by the Board of Directors in the context of current and expected crude oil prices, economic conditions, Syncrude's operating performance, and the Corporation's capacity to finance operating and investing obligations. Dividend levels are established with the intent of absorbing short-term market volatility over several quarters. Dividend levels also recognize our intention to fund the current major projects primarily with cash flow from operations and existing cash balances, while maintaining a strong balance sheet to reduce exposure to potential oil price declines, capital cost increases or major operational upsets.

Canadian Oil Sands intends to maintain the current quarterly dividend of \$0.35 per Common Share through 2013 based on the assumptions in the 2013 outlook.

See the discussion regarding the volatility and lack of certainty on dividends under "*Risk Factors*" on page 28 of this AIF.

### **Dividend and Distribution History**

Prior to the Reorganization, the Trust paid distributions to Unitholders and after the Reorganization the Corporation pays dividends to Shareholders. Accordingly, all amounts prior to December 31, 2010 were distributions of the Trust.

<b>Payment Date</b>	<b>Amount per Unit/Common Share</b>
November 30, 2012	\$0.35
August 31, 2012	\$0.35
May 31, 2012	\$0.35
February 29, 2012	\$0.30
November 30, 2011	\$0.30
August 31, 2011	\$0.30
May 31, 2011	\$0.30
February 28, 2011	\$0.20
November 30, 2010	\$0.50
August 31, 2010	\$0.50
May 31, 2010	\$0.50
February 26, 2010	\$0.35

## DESCRIPTION OF CAPITAL STRUCTURE

### General Description

The Corporation is authorized to issue an unlimited number of Common Shares and up to a maximum of 10,000,000 preferred shares, issuable in series. The holders of Common Shares are entitled to receive notice of and to attend all meetings of shareholders and vote at any such meeting on the basis of one vote for each Common Share held. As no preferred shares are issued and outstanding, the holders of Common Shares are entitled to receive any dividend declared by the board of directors of the Corporation and to receive the remaining property of the Corporation on a liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or on any other return of capital or distribution of assets of the Corporation among its shareholders for the purpose of winding up its affairs. As at December 31, 2012, an aggregate of 484,555,673 Common Shares were issued and outstanding.

### Shareholder Rights Plan

A shareholder rights plan (the “Rights Plan”) for the Corporation was approved by Shareholders at the annual and special meeting of Shareholders held on April 29, 2010 and must be reconfirmed by more than 50 per cent of the votes cast at each of the annual and special meetings of Shareholders in 2014 and 2017. The Rights Plan was implemented on December 31, 2010.

The primary objective of the Rights Plan is to provide the Board of Directors with sufficient time to explore and develop alternatives for maximizing Shareholder value if a take-over bid is made for the Voting Shares (defined as the Common Shares and any other shares that the Corporation may issue that carry voting rights) and to provide every Shareholder with an equal opportunity to participate in such a bid. The Rights Plan encourages a potential acquiror to proceed either by way of a Permitted Bid (as defined in the Rights Plan), which requires the take-over bid to satisfy certain minimum standards designed to promote fairness, or with the concurrence of the Board. Shareholders are advised that the Rights Plan may preclude their consideration or acceptance of offers which are inadequate and do not meet the requirements of a Permitted Bid.

The effective date of the Rights Plan is December 31, 2010 and such Rights Plan has a nine year term. On December 31, 2010, one right (a “Right”) was issued and attached to each Common Share then outstanding and one right will also be issued and attach to each Common Share subsequently issued.

The Rights will separate from the Common Shares and will be exercisable eight trading days (the “Separation Time”) after a person (an “Acquiring Person”) acquires 20 per cent or more of, or commences or announces a take-over bid for, the outstanding Voting Shares, other than by an acquisition pursuant to a Permitted Bid or a Competing Permitted Bid (in each case, as described below). The acquisition by an Acquiring Person of 20 per cent or more of the Voting Shares is referred to as a “Flip-in Event”. When a Flip-in Event occurs each Right (except for Rights beneficially owned by an Acquiring Person or certain transferees of an Acquiring Person, which Rights will become void) becomes a right to purchase from the Corporation, upon exercise thereof in accordance with the terms of the Rights Plan, that number of Common Shares having an aggregate market price on the date of consummation or occurrence of such Flip-in Event equal to twice the exercise price (the “Exercise Price”) for an amount in cash equal to the Exercise Price (such right to be subject to adjustment in accordance with the Rights Plan).

Any Rights held by an Acquiring Person will become void upon the occurrence of a Flip-in Event. Accordingly, any take-over bid other than a Permitted Bid or a Competing Permitted Bid would be prohibitively expensive for the Acquiring Person. The Rights Plan is therefore designed to require any person interested in acquiring 20 per cent or more of the Voting Shares of the Corporation to do so by

way of a Permitted Bid or a Competing Permitted Bid or to make an offer which the Board considers to represent the full value of the Voting Shares.

The issue of the Rights is not initially dilutive. However, upon a Flip-in Event occurring and the Rights separating from the Common Shares and being exercised, holders of Rights not exercising their Rights may suffer substantial dilution.

Prior to the separation of the Rights from the Common Shares, the Rights are evidenced by a legend imprinted on certificates for Common Shares issued from and after the effective date of the Rights Plan and are not to be transferable separately from the Common Shares. From and after the separation of the Rights from the Common Shares, the Rights will be evidenced by Rights certificates which will be transferable separately from the Common Shares.

The requirements for a Permitted Bid include the following:

- (a) the take-over bid must be made by way of a take-over bid circular;
- (b) the take-over bid must be made to all holders of Voting Shares other than the bidder;
- (c) the take-over bid must be outstanding for a minimum period of 60 days and Voting Shares tendered pursuant to the take-over bid may not be taken up prior to the expiry of the 60 day period and only if at such time more than 50 per cent of the Voting Shares held by the shareholders, other than the bidder, its affiliates and persons acting jointly or in concert and certain other persons (the “Independent Shareholders”), have been tendered to the take-over bid and not withdrawn;
- (d) the Voting Shares deposited pursuant to the bid may be withdrawn until taken up and paid for; and
- (e) if more than 50 per cent of the Voting Shares held by Independent Shareholders are tendered pursuant to the takeover bid within the 60 day period, the bidder must make a public announcement of that fact and the take-over bid must remain open for deposits of Voting Shares for an additional 10 business days from the date of such public announcement.

The Rights Plan allows for a competing Permitted Bid (a “Competing Permitted Bid”) to be made while a Permitted Bid is in existence. A Competing Permitted Bid must satisfy all of the requirements of a Permitted Bid except that it may expire on the same day as the Permitted Bid, subject to the requirement that it be outstanding for a minimum period of 35 days.

The Board, acting in good faith, may, prior to the occurrence of a Flip-in Event, waive the application of the Rights Plan to a particular Flip-in Event (an “Exempt Acquisition”) where the take-over bid is made by way of a take-over bid circular to all shareholders. Where the Board exercises the waiver power for one take-over bid, the waiver will also apply to any other take-over bid for the Corporation made by way of a take-over bid circular to all shareholders prior to the expiry of any other bid for which the Rights Plan has been waived. The Board may also waive the application of the Rights Plan if a person becomes an Acquiring Person by inadvertence or reduces its beneficial ownership such that it is no longer an Acquiring Person.

The Board, with the approval of the majority of votes cast by Shareholders (or the holders of the Rights if the Rights have separated from the Common Shares) voting in person and by proxy, at a meeting duly called for that purpose, may redeem all of the then outstanding Rights at \$0.00001 per Right as adjusted by the terms of the Rights Plan. Rights may also be redeemed by the Board without such approval following completion of a Permitted Bid, Competing Permitted Bid or Exempt Acquisition.

The Board may amend the Rights Plan with the approval of a majority of votes cast by Shareholders (or the holders of the Rights if the Rights have separated from the Common Shares) voting in person and by proxy at a meeting duly called for that purpose. The Board, without such approval, may correct clerical or typographical errors and, subject to the subsequent approval as noted above at the next meeting of the Shareholders (or holders of Rights, as the case may be), may make amendments to the Rights Plan to maintain its validity due to changes in applicable legislation.

Investment managers (for fully managed accounts), mutual funds and their managers, trust companies (acting in their capacities as trustees and administrators), statutory bodies whose business includes the management of funds, administrators of registered pension plans and crown agents acquiring 20 per cent or more of the Voting Shares are exempted from triggering a Flip-in Event, provided that they are not making, or are not part of a group making, a take-over bid.

## **Ratings**

As at February 21, 2013, the debt securities of the Corporation were rated BBB with a stable outlook by Standard & Poor's ("S&P"), Baa2 with a stable outlook by Moody's Investor Service ("Moody's") and BBB with a stable outlook by Dominion Bond Rating Service ("DBRS"). The Corporation has requested ratings from S&P and Moody's, but it has not asked for nor reviewed the basis for the rating from DBRS.

Moody's credit ratings are on a long term debt rating scale that ranges from Aaa to C, which represents the range from highest to lowest quality of such securities rated. A rating of Baa2 is within the fourth highest of nine categories and, according to the Moody's rating system, obligations rated Baa are subject to moderate credit risk. They are considered medium-grade and as such may possess certain speculative characteristics. Moody's appends numerical modifiers 1, 2 and 3 to each generic rating classification from Aa through Caa in its corporate bond rating system. The modifier 1 indicates that the issue ranks in the higher end of its generic rating category, the modifier 2 indicates mid-range ranking and the modifier 3 indicates a ranking in the lower end of its generic rating category.

S&P's credit ratings are on a long term debt rating scale that ranges from AAA to D, which represents the range from highest to lowest quality of such securities rated. A rating of BBB is within the fourth highest of ten categories and, according to the S&P rating system, an obligation rated BBB exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation. The ratings from AA to CCC may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

DBRS' credit ratings are on a long term debt rating scale that ranges from AAA to D, which represents the range from highest to lowest quality of such securities rated. A rating of BBB is within the fourth highest of ten categories and, according to the DBRS rating system, an obligation rated BBB exhibits adequate credit qualities and the capacity for the payment of financial obligations is acceptable. However, the obligor may be vulnerable to future events. The ratings from AA to C may be modified by the addition of a "high" or "low" subcategory to show relative standing within the major rating categories.

Credit ratings are intended to provide an independent measure of the credit quality of an issuer of securities. The credit ratings mentioned herein are not a recommendation to purchase, hold or sell the debt securities of the Corporation and do not comment as to market price or suitability for a particular investor. The Corporation cannot assure investors that any rating will remain in effect for any given period of time or that any rating will not be revised or withdrawn entirely by a rating agency in the future if in its judgment circumstances so warrant and, if any such rating is so revised or withdrawn, the Corporation is not under any obligation to update this AIF.

The Corporation pays S&P and Moody's an annual fee for the credit ratings that they prescribe to the debt securities of the Corporation. In addition, in the last two years, the Corporation has paid fees to S&P and Moody's in connection with the credit ratings that they provided for the 2012 Senior Notes and the 2011 Medium Term Notes.

The Corporation has not made any payments to DBRS as the Corporation has not asked for nor reviewed the basis for the rating from DBRS.

## MARKET FOR SECURITIES

### Price Range and Trading Volumes of Common Shares

The Common Shares are listed for trading on the TSX and trade under the symbol "COS".

The table below sets out the price ranges and volumes traded on the TSX for the Common Shares during 2012 and January 2013.

Month	High (\$)	Low (\$)	Close (\$)	Volume Traded
January	25.19	23.03	24.86	40,124,557
February	24.97	21.72	23.63	46,947,897
March	24.09	21.01	21.04	40,908,115
April	21.86	19.88	21.83	24,123,422
May	23.32	20.01	20.09	33,356,561
June	20.05	18.21	19.72	43,129,440
July	21.41	18.74	20.18	25,480,116
August	22.30	19.62	21.04	30,772,243
September	22.34	20.54	21.05	35,473,240
October	21.60	20.27	21.20	29,784,837
November	21.69	19.70	20.16	25,806,035
December	20.50	19.10	20.17	26,322,706
January 2013	21.93	19.95	20.99	23,012,885

Note 14 *Shareholders' Equity* of the audited consolidated annual financial statements of Canadian Oil Sands for the year ended December 31, 2012 is incorporated herein by reference.

### Prior Sales

Please see "*Canadian Oil Sands Three Year History – Senior Notes*" on page 10 of this AIF for a description of the offering of the 2012 Senior Notes.

## DIRECTORS AND OFFICERS

### Directors

As at February 21, 2013, the directors of the Corporation are as set forth below. The Corporation's articles provide that the Corporation must have a minimum of three and a maximum of fifteen directors. The Corporation's directors are elected annually by the Shareholders. In addition, the Board may appoint from time to time one or more directors within the limits provided in the ABCA.

The following are the names, the province and country of residence of each director of the Corporation, their positions with the Corporation, their principal occupations within the past five years and the year in which each first became a director of the Corporation.

<b>Name and Province and Country of Residence</b>	<b>Position Held and Principal Occupation</b>	<b>Year First Became a Director<sup>(4)</sup></b>
IAN A. BOURNE <sup>(1)(2)</sup> Alberta, Canada	Corporate Director; Chairman, Ballard Power Systems Inc. (alternative energy)	2007
MARCEL R. COUTU Alberta, Canada	President and Chief Executive Officer, Canadian Oil Sands Limited	2001
DONALD J. LOWRY <sup>(1)</sup> Alberta, Canada	Chairman, Canadian Oil Sands Limited since October 1, 2009; Corporate Director; President and Chief Executive Officer, EPCOR Utilities Inc. (utilities)	2007
JOHN K. READ <sup>(3)</sup> Alberta, Canada	Corporate Director, President, John K. Read Investments Ltd. (private company)	2010
GERALD W. GRANDEY <sup>(1)(2)</sup> Saskatchewan, Canada	Corporate Director	2011
SARAH E. RAISS <sup>(2)</sup> Alberta, Canada	Corporate Director	2012
BRANT G. SANGSTER <sup>(3)</sup> Alberta, Canada	Corporate Director	2006
C.E. (CHUCK) SHULTZ <sup>(3)</sup> Alberta, Canada	Corporate Director since October 1, 2009; prior thereto Chairman, Canadian Oil Sands Limited, Chairman and Chief Executive Officer, Dauntless Energy Inc. (private oil and gas corporation)	1996
WESLEY R. TWISS <sup>(1)(3)</sup> Alberta, Canada	Corporate Director	2001
JOHN B. ZAOZIRNY, Q.C. <sup>(2)</sup> Alberta, Canada	Corporate Director; Vice Chairman, Canaccord Genuity Corporation (investment firm)	1996

**Notes:**

- (1) Member of the Audit Committee.
- (2) Member of the Corporate Governance and Compensation Committee.
- (3) Member of the Reserves, Marketing Operations and Environmental, Health & Safety Committee.
- (4) All of the directors of the Corporation have been elected to hold office until the next annual meeting of Shareholders or until their successors are duly elected or appointed, unless their office is earlier vacated.

Each of the directors listed above has been engaged in the occupation set forth in the above table or similar occupations with the same employer for the last five years except Mr. Grandey who was the Chief Executive Officer of Cameco Corporation from 2003 to June 2011 and Ms. Raiss who, from 2000 to 2011, was Executive Vice President for TransCanada Corporation where she was responsible for a broad portfolio including human resources, information systems, aviation, building, office services, real estate, organizational excellence and communications.

**Officers**

The following table identifies each of the officers of the Corporation, as at February 21, 2013, their jurisdiction of residence, their current office, and their principal occupations for the five-year period preceding December 31, 2012.



<b>Name and Province and Country of Residence</b>	<b>Current Office</b>	<b>Five Year History of Principal Occupations</b>
MARCEL R. COUTU Alberta, Canada	President and Chief Executive Officer	President and Chief Executive Officer of the Corporation
RYAN M. KUBIK Alberta, Canada	Chief Financial Officer	Chief Financial Officer of the Corporation since April, 2007; prior thereto, Treasurer of the Corporation from September, 2002 to April, 2007
TRUDY M. CURRAN Alberta, Canada	Senior Vice President, General Counsel and Corporate Secretary	Senior Vice President, General Counsel and Corporate Secretary of the Corporation since December, 2011; prior thereto, General Counsel and Corporate Secretary of the Corporation from September 2002 to November, 2011
DARREN K. HARDY Alberta, Canada	Senior Vice President, Operations	Senior Vice President, Operations of the Corporation since September, 2011; prior thereto Vice President, Operations of the Corporation from September, 2008 to August, 2011; prior thereto, Business Unit Manager of Syncrude Canada Ltd. from September, 1989 to August, 2008
ALLEN R. HAGERMAN, FCA Alberta, Canada	Executive Vice President	Executive Vice President of the Corporation since April, 2007
ROBERT P. DAWSON Alberta, Canada	Vice President, Finance	Vice President, Finance of the Corporation since January, 2011; prior thereto Treasurer of the Corporation from May, 2007 to December, 2010
PHILIP D. BIRKBY Alberta, Canada	Controller	Controller of the Corporation since May, 2010; prior thereto Director, Finance Services, Suncor Energy Inc. from August, 2009 to May, 2010; prior thereto Director, Corporate Reporting, Petro-Canada from June, 2008 to August, 2009; prior thereto, Manager, Advisory Services, Petro-Canada from March, 2007 to June, 2008
SIREN FISEKCI Alberta, Canada	Vice President, Investor and Corporate Relations	Vice President, Investor and Corporate Relations of the Corporation since January, 2010; prior thereto Director, Investor Relations of the Corporation from April, 2006 to December, 2009
ADRIENNE NICKERSON Alberta, Canada	Vice President, Operations	Vice President, Operations of the Corporation since January, 2013; prior thereto Director, Operations of the Corporation from September, 2010 to December, 2012; prior thereto independent consultant from November, 2009 to August, 2010; prior thereto Senior Organizational Effectiveness Specialist, Suncor Energy Inc. from September, 2008 to August, 2009; prior thereto Director, Sustaining Projects, Suncor Energy Inc. from September, 2005 to August, 2008
DAVID J. SIRRS Alberta, Canada	Vice President, Marketing	Vice President, Marketing of the Corporation since January, 2011; prior thereto, Director, Marketing of the Corporation from February 2006 to December, 2010
SCOTT W. ARNOLD Alberta, Canada	Director, Sustainability and External Relations	Director, Sustainability and External Relations of the Corporation since January, 2011; prior thereto Sustainability Officer of the Corporation from February, 2010 to December, 2010; prior thereto Assistant Treasurer of the Corporation from January, 2007 to February, 2010

## Security Holdings

As of February 21, 2013, to the knowledge of the Corporation, the directors and officers of the Corporation, as a group, beneficially own, control or direct, directly or indirectly, 3,399,396 Common Shares, representing less than one per cent of the issued and outstanding Common Shares.

## Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Mr. Read resigned as a director of Oilsands Quest Inc. ("Quest") on September 6, 2011. On November 29, 2011, Quest filed for creditor protection proceedings under the *Companies' Creditors*

*Arrangement Act* (Canada) (the “CCAA”) and obtained an order from the Alberta Court of Queen’s Bench to start proceedings. The NYSE MKT LLC (the “NYSE MKT”) halted trading in the common shares of Quest when Quest started creditor protection proceedings under the CCAA and, on June 1, 2012, delisted Quest from the NYSE MKT for failure to meet the continued listing requirements of the NYSE MKT. The CCAA proceedings related to this filing are ongoing.

In August 2012, the Alberta Securities Commission and other securities commissions in Canada ordered that trading or purchasing cease in respect of any security of Quest until the order is revoked or varied. The reason for the order was Quest’s failure to file the following disclosure documents: annual audited financial statements, annual management’s discussion and analysis and certification of annual filings for the year ended April 30, 2012. The order is still in effect.

## **AUDIT COMMITTEE INFORMATION**

### **Audit Committee Charter**

The terms of reference for the Audit Committee are available on the Corporation’s website at [www.cdnoilsands.com/about-COS/governance/terms-of-reference](http://www.cdnoilsands.com/about-COS/governance/terms-of-reference) and under the Corporation’s profile on SEDAR at [www.sedar.com](http://www.sedar.com). These terms of reference as at February 21, 2013 are attached hereto as Schedule “A”.

### **Audit Committee Composition**

The Audit Committee is comprised of the members listed below. The Board has determined that each member of the Audit Committee is an “independent” director and is “financially literate” under applicable securities laws. In considering criteria for the determination of financial literacy, the Board of Directors considered the member’s ability to read and understand a balance sheet, an income statement and a cash flow statement of a public company and to understand the accounting principles used by Canadian Oil Sands to prepare its financial statements, to assess the general application of the accounting principles used to prepare such financial statements in connection with the accounting for estimates, accruals and provisions, the member’s past experience in preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of issues that can reasonably be expected to be raised by Canadian Oil Sands’ financial statements and the member’s understanding of internal controls and procedures for financial reporting. Beside each member’s name is such person’s education and experience relevant to such member’s performance as an Audit Committee member.

<b>Name</b>	<b>Relevant Education and Experience</b>
Wesley R. Twiss (Chair)	Mr. Twiss has over 40 years experience in the oil and gas industry, including more than 10 years as chief financial officer of large public oil and gas companies which held or managed an interest in the Syncrude Joint Venture. Mr. Twiss is a member of the Audit Committee of EPCOR Utilities Inc. He has experience in accounting and internal controls, corporate finance and capital markets and corporate governance. Mr. Twiss has a B.A.Sc. (Chemical Engineering) from the University of Toronto, an MBA from the University of Western Ontario and he holds a Professional Engineering designation in Ontario. He is also a member of the Institute of Corporate Directors (“ICD”). He has completed the ICD Corporate Governance College Director Education Program and has received the ICD.D. designation.

Name	Relevant Education and Experience
Donald J. Lowry	Mr. Lowry has over 25 years of industry experience in the utilities, telecommunications and power generation sectors. He has acted in various director capacities. Currently, he is the President and Chief Executive Officer of EPCOR Utilities Inc., and the Chairman of Capital Power Corporation. He also is a director of the Canadian Electrical Association. Mr. Lowry holds a B. Comm. (Hons) and an MBA and is a graduate of the Advanced Management Program at Harvard Business School and the Banff School of Management. He has also attended various ICD Corporate Governance College Director Education Program seminars.
Ian A. Bourne	Mr. Bourne has acted in various director capacities for a number of public entities. He is currently the Chair of Ballard Power Systems Inc., a board member of the Canada Pension Plan Investment Board, board member and Vice Chair of SNC Lavalin Group Inc. and a director of Wajax Corporation. He is also a member of the Canadian Public Accountability Board, which regulates the auditors of public issuers in Canada. Mr. Bourne has over 30 years experience including eight years as the Executive Vice President and Chief Financial Officer of TransAlta Corporation, President of TransAlta Power L.P. as well as serving as the Chief Financial Officer of Canada Post and GE Canada. Mr. Bourne was appointed Interim Chief Executive Officer of SNC Lavalin Group Inc. on March 25, 2012 until the appointment of a new CEO in October 2012. He has completed the ICD Corporate Governance College Director Education Program and has received the ICD.D. designation as well as the ICD Fellowship Award.
Gerald W. Grandey	Mr. Grandey has extensive experience in the nuclear and mining industries, in business development and finance. He is the former President and Chief Executive Officer of Cameco Corporation. Mr. Grandey was Vice Chairman of the Concord Business Group and President of Energy Fuels Nuclear. He currently serves on the boards of Potash Corporation of Saskatchewan, Inmet Mining Corporation and Sandspring Resources Ltd. Mr. Grandey was a director of Cameco Corporation and Centerra Gold Inc. He has a degree in geophysical engineering from the Colorado School of Mines and a law degree from Northwestern University.

### **Audit Committee Pre-Approval Policies for Non-Audit Services**

The Audit Committee has adopted procedures relating to the engagement of non-audit services whereby any non-audit services over \$25,000 must be pre-approved by the Chair of the Audit Committee or the Audit Committee itself and as such, the Corporation is relying on the exemption in Section 2.4 of National Instrument 52-110 *Audit Committees* in respect of de minimis non-audit services.

### **Audit Committee Oversight**

Since January 1, 2012, all recommendations by the Audit Committee to nominate or compensate external auditors have been adopted by the board of directors.

### **Fees Paid to Auditors**

The aggregate fees paid to PricewaterhouseCoopers LLP (“PwC”) (exclusive of GST) in 2012 and 2011 were as follows:

<b>Fees Descriptions</b>	<b>2012</b>	<b>2011</b>
Audit Fees	\$379,000	\$367,000
Audit-Related Fees	\$66,680	\$55,000
Tax Fees	\$91,628	\$234,998
All Other Fees	Nil	Nil

Audit services generally relate to reviewing annual and interim financial statements and notes, conducting the annual audit and providing other services regulators may require of auditors as well as reviewing and testing results for internal controls over financial reporting. These may also include services for prospectuses, reports and other documents that are filed with securities regulators or other documents issued for securities offerings.

Audit-related services include consulting on accounting matters and attest services not directly linked to the financial statements that are required by regulators.

Tax services relate to tax compliance, tax advice and tax planning that are beyond the scope of the annual audit. These may include transfer-pricing surveys for the tax authorities, preparing corporate tax returns and advice and consulting on Canadian and United States tax matters, tax implications of capital market transactions and capital tax.

Other services include other professional services that PwC and/or its affiliates provide to Canadian Oil Sands from time to time.

The Audit Committee has restricted the auditors from providing any services that could reasonably be seen as functioning in the role of management, auditing their own work or acting in an advocate role for Canadian Oil Sands. In particular, the external auditor is not to provide bookkeeping functions, actuarial or appraisal services (other than related to tax services), internal audit, human resources, or legal services (other than for French translation services). The Audit Committee has defined what constitutes audit services, audit related services, tax services and other services.

All of the services provided and the amounts paid must be disclosed to the Audit Committee at the Audit Committee meeting immediately following such engagement.

## **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

Other than as disclosed in this AIF, no director or officer of the Corporation, nor any person or company who beneficially owns, or controls or directs, directly or indirectly, more than 10 per cent of the outstanding Common Shares, nor any associate or affiliate of any such persons, has a material interest, direct or indirect, in any transaction since January 1, 2010 that has materially affected or is reasonably expected to materially affect Canadian Oil Sands.

## **LEGAL PROCEEDINGS AND REGULATORY ACTIONS**

There are no legal proceedings to which we are or were a party to, or of which any of our property is or was the subject of, nor are there any proceedings known by us to be contemplated that involves a claim for damages, exclusive of interest and costs, in an amount exceeding 10 per cent of our current assets. In addition, there have not been any: (a) penalties or sanctions imposed against the Corporation by a court relating to securities legislation or by a securities regulatory authority during our financial year; (b) penalties or sanctions imposed by a court or regulatory body against the Corporation that would likely be considered important to a reasonable investor in making an investment decision; or (c) settlement agreements entered into by the Corporation before a court relating to securities legislation or with a securities regulatory authority during our financial year.

## TRANSFER AGENT AND REGISTRAR

Computershare Trust Company of Canada is the transfer agent and registrar for the Common Shares at its offices in Vancouver, Calgary, Toronto and Montreal. They may be contacted at 600, 530 – 8<sup>th</sup> Avenue S.W., Calgary, Alberta T2P 3S8; phone (403) 267-6800; facsimile (403) 267-6529.

## INTEREST OF EXPERTS

### **PricewaterhouseCoopers LLP**

The Corporation's auditors are PwC, Chartered Accountants, who have prepared an independent auditors' report dated February 21, 2013 in respect of the Corporation's consolidated financial statements with accompanying notes as at and for the years ended December 31, 2012 and 2011. PwC has advised that they are independent with respect to the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Alberta.

### **GLJ Petroleum Consultants Ltd.**

In June, 2012, the Corporation appointed GLJ as the independent reserves evaluator for Canadian Oil Sands. The designated professionals of GLJ, as a group, through registered or beneficial interests, directly or indirectly, own less than one per cent of any class of our outstanding securities, including the securities of our associates and affiliates.

## MATERIAL CONTRACTS

The following is a list of the material contracts required to be disclosed under National Instrument 51-102 *Continuous Disclosure Obligations* and for which copies may be found at [www.sedar.com](http://www.sedar.com):

**a) *Shareholder Rights Plan Agreement dated as of December 31, 2010 between the Corporation and Computershare Investor Services Inc.***

The Shareholder Rights Plan was approved by Shareholders on April 29, 2010. A copy of the document is available on SEDAR. See the description of the Shareholder Rights Plan on pages 49 to 51 of this AIF.

**b) *Ownership and Management Agreement dated March 5, 1975, as amended, among Syncrude Participants and SCL***

This agreement outlines and governs the basis upon which the various owners of the Syncrude Project created the Syncrude Joint Venture and how the Syncrude Participants authorize and govern the operation of such project by SCL. There is no term to the agreement. The agreement sets out the requirements for unanimous agreement of the Syncrude Participants to undertake major expansions to the Syncrude Project or to change the operator of the Syncrude Project. Under the terms of the Ownership and Management Agreement, each Syncrude Participant is required to fund its proportionate share of the operating and approved capital expenditures of the Syncrude Project and in turn receives its share of the SCO and other products produced by SCL as operator of the Syncrude Project. Failure to fund by a Syncrude Participant results in the loss by that Syncrude Participant of its share of the SCO and products produced from the Syncrude Project until the other Syncrude Participants have been able to offset the expenditure liability for which the defaulting Syncrude Participant owes.

**c) *Crown Royalty Agreements among the Syncrude Participants and Her Majesty the Queen in Right of Alberta, as amended***

The agreements set out the basis upon which the Syncrude Participants will pay Crown royalties to the Alberta government in respect of production from various leases in the Syncrude Project. See the description of the Crown royalty agreements on pages 26 to 27 of this AIF.

**d) *Long term debt instruments***

The Corporation is the entity which issues all of the material debt instruments relating to Canadian Oil Sands. All of the Senior Notes issued by the Corporation are guaranteed by COSP and are unsecured, rank pari passu with other senior unsecured debt of the Corporation, and contain certain covenants that place limitations on the sale of assets and the granting of liens or other security interests.

The Senior Notes issued by the Corporation were placed in the United States and Canada under a private placement exemption.

The Senior Notes that were issued prior to December 31, 2010 were amended and restated in connection with and to reflect the Reorganization.

(i) Indenture dated as of April 1, 1997, as amended and restated, between the Bank of New York Mellon, as trustee, the Corporation as successor to AOSII and COSP

On April 1, 1997, the Corporation issued US\$75 million of 8.2 per cent Senior Notes, maturing April 1, 2027, and retired US\$1.05 million during 2000. Interest is payable on the notes semi-annually on April 1 and October 1.

(ii) Indenture dated as of August 24, 2001, as amended and restated, between the Bank of New York Mellon, as trustee, and the Corporation and COSP

On August 24, 2001 the Corporation issued US\$250 million of 7.9 per cent Senior Notes, maturing September 1, 2021. Interest is payable on the notes semi-annually on March 1 and September 1. The Corporation has agreed to maintain its consolidated debt to total capitalization at an amount less than 55 per cent. Unlike the indentures relating to the other issuances of Senior Notes, this indenture contains a provision whereby if the ratings for the unsecured debt of the Corporation fall below investment grade, there is a step up in the amount of interest payable on the notes.

(iii) Indenture dated as of August 6, 2003, as amended and restated, between the Bank of New York Mellon, as trustee, and the Corporation and COSP

On August 6, 2003, the Corporation issued US\$300 million of 5.8 per cent Senior Notes, maturing August 15, 2013. Interest is payable on the notes semi-annually on February 15 and August 15.

(iv) Indenture dated as of May 11, 2009, as amended and restated, between the Bank of New York Mellon, as trustee, and the Corporation and COSP

On May 11, 2009, the Corporation issued US\$500 million of 7.75 per cent Senior Notes maturing on May 15, 2019. Interest is payable on the notes semi-annually on May 15 and November 15.

(v) Indenture dated as of March 29, 2012 between the Bank of New York Mellon, as trustee, and the Corporation and COSP

On March 29, 2012, the Corporation issued US\$400 million of 4.5 per cent Senior Notes maturing on April 1, 2022 and US\$300 million of 6.0 per cent Senior Notes maturing on April 1, 2042. Interest is payable on the notes semi-annually on April 1 and October 1.

#### **ADDITIONAL INFORMATION**

Additional information relating to Canadian Oil Sands is available through the Internet via SEDAR at [www.sedar.com](http://www.sedar.com).

In particular, additional information, including with respect to directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's management proxy circular for the Corporation's most recent annual meeting of Shareholders that involved the election of directors. Additional financial information is also provided in the Corporation's consolidated comparative audited financial statements and notes thereto and unaudited MD&A for the year ended December 31, 2012.

## **SCHEDULE “A”**

### **AUDIT COMMITTEE – TERMS OF REFERENCE**

#### **I. PURPOSE**

- A. The primary function of the Audit Committee (the “Committee”) is to assist the Board of Directors (the “Board of Directors” or the “Board”) of Canadian Oil Sands Limited (“COSL”) in fulfilling its oversight responsibilities by reviewing:
- i) the financial information that will be provided to the shareholders of COSL and the public;
  - ii) the systems of internal controls that management and the Board have established, including monitoring the integrity of the controls regarding financial reporting and accounting compliance; and
  - iii) all audit processes.
- B. Primary responsibility for the financial reporting, information systems, risk management and internal controls of COSL is vested in management and is overseen by the Board.
- C. The Committee reviews and receives the reports of the internal auditor as part of the internal control oversight of COSL.
- D. The Committee shall monitor the independence and performance of the external auditors and of the internal auditors of COSL.

#### **II. CONSTITUTION, COMPOSITION AND DEFINITIONS**

- A. The Committee shall be composed of not fewer than three directors, none of whom shall be officers or employees of COSL. The Committee shall only be comprised of “independent” directors. An “independent” director is a director who is free from any direct or indirect relationship with COSL that, in the Board’s view, would or could reasonably interfere with the exercise of his or her independent judgment. A member must be “independent” within the meaning ascribed thereto in National Instrument 52-110 *Audit Committees*, as amended from time to time. All members of the Committee shall be financially literate, as determined by the Board of Directors. Committee members will include only duly elected directors.
- B. The Committee shall ensure that management advises the external auditors of the names of the Committee members and provides notice of and invites, where appropriate, the external auditors to attend meetings of the Committee. The Committee shall ensure that the external auditors are heard at those meetings on matters relating to the auditor’s duties.
- C. The Committee shall meet with the external auditors at least quarterly, and otherwise as it deems appropriate, to consider any matter that the Committee or the external auditors determine should be brought to the attention of the Board or shareholders.
- D. The Committee shall meet at least four times each year. The Chair of the Committee may call additional meetings as required. In addition, a meeting may be called by the



non-executive Chairman of the Board, the President & Chief Executive Officer, any member of the Committee or by the external auditors.

- E. The Committee shall have the right to determine who shall and who shall not be present at any time during a Committee meeting. The President & Chief Executive Officer and the Chief Financial Officer of COSL are expected to be available to attend the Committee's meetings or portions thereof.
- F. The Board shall appoint members to the Committee. Where a vacancy occurs at any time in the membership of the Committee, the Board may fill it. A majority of the Board may remove any member of the Committee at any time. If a member of the Committee ceases to be a Board member, then such individual shall automatically cease to be a member of the Committee.
- G. The Committee shall be given access to senior management of COSL and all documents as required to fulfill its responsibilities and shall be provided with the resources necessary to carry out its responsibilities.
- H. The Committee shall have the right to:
  - i) engage independent counsel and other advisors as it determines necessary to carry out its duties;
  - ii) to establish and pay the compensation for any advisors employed by the Committee; and
  - iii) to communicate directly with the external auditors and, if applicable, internal auditors.
- I. The Committee provides open venues of communication among management, employees, external auditors and the Board.
- J. The non-executive Chairman of the Board shall be a non-voting member of the Committee unless he is a member of the Committee in which case he shall have the same voting rights as any other member of the Committee.
- K. The Secretary to the Committee shall be either the Corporate Secretary or his/her delegate.
- L. Committee meetings may be held in person, by video conference, by means of telephone or other communication facility that permits all persons participating to hear each other.
- M. Notice of the time and place of each meeting may be given orally, or in writing (including by electronic means) or by facsimile to each member of the Committee at least 48 hours prior to the time fixed for such meeting. Notice shall also be given to the external auditors. Any member and the external auditors may, in any manner, waive notice of the meeting. Attendance of a member or the external auditors at a meeting shall constitute waiver of notice of the meeting except where a member or the external auditors attend the meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting was not lawfully called.

- N. A majority of members, present in person, by videoconference, telephone or other communication facility shall constitute a quorum.
- O. All members of the Committee are expected to allow sufficient time to review meeting materials and be prepared for Committee meetings. Committee members are expected to attend most, if not all, Committee meetings.
- P. The Chair of the Committee shall be appointed by the Board. The Chair shall preside as chair at each Committee meeting, lead Committee discussion on meeting agenda items and report to the Board, on behalf of the Committee, with respect to the proceedings of each Committee meeting. In the event that either the Chair or the Secretary is absent from any meeting, the members present shall designate any director present to act as Chair and shall designate any director, officer or employee of the Company to act as Secretary.

### III. DUTIES AND RESPONSIBILITIES

Subject to the powers and duties of the Board, the Committee will perform the following duties:

#### A. **Financial Statements and Other Financial Information**

The Committee will review and consider all financial information that will be made publicly available. This includes:

- i) reviewing and recommending approval of the annual financial statements and management's discussion and analysis of COSL and report to the Board before the statements are approved by the Board;
- ii) reviewing and approving the quarterly unaudited financial statements and management's discussion of COSL and approving the release of such financial statements and interim management's discussion and analysis to the public together with the press releases thereon;
- iii) reviewing and authorizing for release any earnings release or guidance document to the public;
- iv) reviewing and recommending to the Board for approval, the financial content of the annual report and of any material reports required by government or regulatory authorities;
- v) reviewing and recommending for approval by the Board the Annual Information Form of COSL;
- vi) reviewing and recommending to the Board for approval the financial content in any prospectus or offering memorandum;
- vii) reviewing and discussing the appropriateness of accounting policies and financial reporting practices used by COSL;
- viii) reviewing and discussing any significant proposed changes in financial reporting and accounting policies and practices to be adopted by COSL;

- ix) reviewing and discussing any new or pending developments in accounting and reporting standards that may materially affect COSL;
- x) reviewing and assessing the appropriateness of management's key estimates and judgments that may be material to financial reporting;
- xi) reviewing and discussing with the internal auditors any matters which affect or may reasonably be expected to affect the accuracy or robustness of reporting as such relate to the financial statements or other financial disclosure matters;
- xii) reviewing and discussing with management the use of "pro forma" or non-GAAP financial information and earnings guidance contained in news releases, any other public disclosure or any filings with the securities regulators and considering whether the information is consistent with the information contained in the financial statements of COSL; and
- xiii) reviewing and reassessing annually that adequate procedures are in place to review any other corporate disclosure derived or extracted from financial statements.

**B. Financial Risk Management, Internal Control and Disclosure Control Systems**

The Committee will review and obtain reasonable assurance that the financial risk management, internal control and disclosure control systems are operating effectively to produce accurate, appropriate and timely management of financial risks and financial information. This includes:

- i) review, at least annually, the financial risk management policies and practices of COSL as such relate to financial matters and accounting, it being recognized that the Board is responsible for the review of the overall risk management affecting COSL;
- ii) obtain reasonable assurance from management or external sources as deemed appropriate that the disclosure control systems are reliable and the systems of disclosure and internal controls are properly designed and effectively implemented through discussions with and reports from management, the internal auditor, if such position exists, and the external auditor, as deemed appropriate by the Committee;
- iii) review management steps to implement and maintain appropriate internal control procedures including a review of policies, including without limitation, internal controls over marketing;
- iv) monitor compliance with statutory and regulatory obligations;
- v) establish procedures for the receipt, retention and treatment of complaints received by COSL regarding accounting, internal accounting controls or auditing matters and establish procedures so that the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters are handled appropriately;

- vi) review the report from the Risk Management Committee regarding any credit risk or violations of applicable marketing policies as part of the Committee's oversight of financial risk management for COSL; and
- vii) review management's monitoring of compliance with COSL's Code of Business Conduct.

For greater certainty, the Committee will review and assess the internal controls and disclosure controls as part of the certification process regarding financial statements and financial disclosure. However, the review and overall assessment of risk management and control processes related to non-financial matters shall remain with the Board.

#### C. **External Audit**

The external auditors shall report directly to the Committee. The Committee will oversee, and review the planning and results of external audit activities and the ongoing relationship with the external auditors. This includes:

- i) review, assess the performance and recommend to the Board, for shareholder approval, the appointment, retention and compensation of the external auditors;
- ii) review the annual external audit plan;
- iii) meet with the external auditors to discuss quarterly and annual financial statements of COSL and the auditors' reports thereon;
- iv) review and report to the Board with respect to the planning, conduct and reporting of the annual audit, including but not limited to:
  - (1) any difficulties encountered, or restriction imposed by management, during the annual audit;
  - (2) critical accounting policies and estimates and alternatives to such policies and estimates;
  - (3) any significant accounting or financial reporting issue;
  - (4) if appropriate, the auditors' evaluation of the system of internal controls, procedures and documentation for COSL;
  - (5) the post audit or management letter containing any findings or recommendation of the external auditors, including management's response thereto and the subsequent follow-up to any identified disclosure or internal control weaknesses; and
  - (6) any other material matters the external auditors bring to the Committee's attention;
- v) review and pre-approve the non-audit services to be provided by the external auditors' firm or its affiliates (including estimated fees), and consider the impact on the independence of the external audit; where circumstances warrant, this pre-approval may be delegated to the Chair of the Committee;

- vi) meet periodically, and at least quarterly, with the external auditors without management present;
- vii) meet periodically, and at least quarterly, with management, without the external auditors present;
- viii) review any decision by COSL to hire employees or former employees of COSL's current or former external auditors; and
- ix) discuss and review with the external auditor, all relationships such auditor has with COSL as part of the assessment of the independence of the external auditor, as well as the external auditor's qualification and performance and the results of any internal reviews of the external audit firm as regards to any findings of inadequacies or concerns raised by external governance or regulating bodies.

**D. Internal Audit**

- i) review the internal audit functions including:
  - (A) the purpose, authority and organizational reporting lines;
  - (B) the annual audit plan, budget and staffing thereof; and
  - (C) the results of the quarterly reporting memos and of the semi-annual and annual internal audit reports; and
- ii) review, with the Chief Financial Officer, the Controller and others, as appropriate, the internal system of audit controls and the results of internal audits and consider the findings and the appropriateness of follow-up plans of the internal auditor.

**E. Tax**

- i) review and approve any material changes to the corporate structure related to tax planning as proposed by management for COSL; and
- ii) review all material tax issues.

**F. Other**

- i) review material litigation as such impacts financial reporting;
- ii) review policies and procedures for the review and approval of directors' and officers' expenses and perquisites, including the use of corporate assets, and consider the results of any review of these areas by an internal audit function, if available, or by the external auditors or a third party consultant, as the Committee deems applicable;
- iii) review and approve a summary of the Committee's composition and responsibilities as well as summary of any audit, audit-related and other services by the external auditors for inclusion in the public disclosure documentation of

COSL, including without limitation, any such disclosure contained in a management proxy circular;

- iv) review any related party transactions between COSL and the directors and officers of COSL;
- v) review any legal and regulatory matters that may have a material impact on the interim or annual financial statements that are brought to the attention of any member of the Committee or the Board;
- vi) conduct or authorize investigation into any matters within the Committee's scope of responsibilities. The Committee shall be empowered to retain independent counsel, accountants or others to assist it in the conduct of any investigation;
- vii) approve the appointment, re-assignment or removal of the Chief Financial Officer of COSL, subject to the recommendation of the Corporate Governance and Compensation Committee and the final approval of the Board;
- viii) approve the appointment, re-assignment or removal of the internal auditor, if any exists, of COSL, subject to the recommendation of the Corporate Governance and Compensation Committee and the final approval of the Board; and
- ix) the Committee shall have the authority to direct and to supervise the investigation into any matter brought to its attention within the scope of its duties. It shall establish procedures for the receipt, retention and treatment of:
  - (A) Complaints COSL may receive regarding accounting, internal accounting controls, or auditing matters; and
  - (B) Confidential, anonymous submissions from COSL employees expressing concern regarding questionable accounting or auditing matters.

#### **IV. ACCOUNTABILITY**

The Committee shall report its discussions to the Board by either distributing the minutes of its meetings or a written summary of such discussions or by oral report at the next Board meeting. Any sensitive materials shall be kept by the Corporate Secretary and/or the Chairman of the Committee.

The Committee shall conduct a review of the Committee's effectiveness at least annually and follow up on any suggested improvements that are identified out of such review or otherwise brought to the attention of the Committee.

#### **V. REVIEW**

The Committee shall review these terms of reference at least annually or, where circumstances warrant, at such short interval as the Committee deems appropriate or necessary, to determine if further additions, deletions or other amendments are required.

## **SCHEDULE “B”**

### **FORM 51-101F2**

#### **REPORT ON RESERVES DATA BY INDEPENDENT QUALIFIED RESERVES EVALUATOR OR AUDITOR**

To the board of directors of Canadian Oil Sands Limited (the “**Company**”):

1. We have evaluated the Company’s reserves data as at December 31, 2012. The reserves data are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2012, estimated using forecast prices and costs.
2. The reserves data are the responsibility of the Company’s management. Our responsibility is to express an opinion on the reserves data based on our evaluation.

We carried out our evaluation in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook (the “COGE Handbook”) prepared jointly by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and the Canadian Institute of Mining, Metallurgy & Petroleum (Petroleum Society).

3. Those standards require that we plan and perform an evaluation to obtain reasonable assurance as to whether the reserves data are free of material misstatement. An evaluation also includes assessing whether the reserves data are in accordance with principles and definitions presented in the COGE Handbook.
4. The following table sets forth the estimated future net revenue (before deduction of income taxes) attributed to proved plus probable reserves, estimated using forecast prices and costs and calculated using a discount rate of 10 percent, included in the reserves data of the Company evaluated by us for the year ended December 31, 2012, and identifies the respective portions thereof that we have audited, evaluated and reviewed and reported on to the Company’s board of directors:

Independent Qualified Reserves Evaluator	Description and Preparation Date of Evaluation Report	Location Reserves (Country or Foreign Geographic Area)	Net Present Value of Future Net Revenue (before income taxes, 10% discount rate – M\$)			
			Audited	Evaluated	Reviewed	<b>Total</b>
GLJ Petroleum Consultants	Corporate Summary February 5, 2013	Canada	-	12,133	-	<b>12,133</b>

5. In our opinion, the reserves data respectively evaluated by us have, in all material respects, been determined and are in accordance with the COGE Handbook, consistently applied. We express no opinion on the reserves data that we reviewed but did not audit or evaluate.
6. We have no responsibility to update our reports referred to in paragraph 4 for events and circumstances occurring after their respective preparation dates.

7. Because the reserves data are based on judgements regarding future events, actual results will vary and the variations may be material.

EXECUTED as to our report referred to above:

GLJ Petroleum Consultants Ltd., Calgary, Alberta, Canada, February 20, 2013

*(signed)* "James H. Willmon"

James H. Willmon, P. Eng.

Vice-President



## **SCHEDULE “C”**

### **FORM 51-101F3**

#### **REPORT OF MANAGEMENT AND DIRECTORS ON OIL AND GAS DISCLOSURE**

##### **Report of Management and Directors on Reserves Data and Other Information**

Management of Canadian Oil Sands Limited (the “**Company**”) are responsible for the preparation and disclosure of information with respect to the Company’s oil and gas activities in accordance with securities regulatory requirements. This information includes reserves data, which are estimates of proved reserves and probable reserves and related future net revenue as at December 31, 2012, estimated using forecast prices and costs.

An independent qualified reserves evaluator has evaluated the Company’s reserves data. The report of the independent qualified reserves evaluator will be filed with securities regulatory authorities concurrently with this report.

The Reserves, Marketing Operations and Environmental, Health and Safety Committee (the “**Reserves Committee**”) of the Board of Directors of the Company has:

- (a) reviewed the Company’s procedures for providing information to the independent qualified reserves evaluator;
- (b) met with the independent qualified reserves evaluator to determine whether any restrictions affected the ability of the independent qualified reserves evaluator to report without reservation; and
- (c) reviewed the reserves data with management and the independent qualified reserves evaluator.

The Reserves Committee of the Board of Directors has reviewed the Company’s procedures for assembling and reporting other information associated with oil and gas activities and has reviewed that information with management. The Board of Directors has, on the recommendation of the Reserves Committee, approved:

- (a) the content and filing with securities regulatory authorities of Form 51-101F1 containing reserves data and other oil and gas information;
- (b) the filing of Form 51-101F2 which is the report of the independent qualified reserves evaluator on the reserves data; and
- (c) the content and filing of this report.

Because the reserves data are based on judgements regarding future events, actual results will vary and the variations may be material.

## CANADIAN OIL SANDS LIMITED

Signed “Marcel R. Coutu ”

Name: Marcel R. Coutu

Title: President and Chief Executive  
Officer

Signed “Darren K. Hardy ”

Name: Darren K. Hardy

Title: Senior Vice President, Operations

Signed “Brant G. Sangster ”

Name: Brant G. Sangster

Title: Director

Signed “Wesley R. Twiss ”

Name: Wesley R. Twiss

Title: Director

February 21, 2013