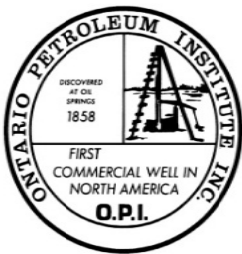


# *Ontario Oil, Gas and Salt Resources Trust*

## *2012 Annual Report*





*Ontario Petroleum Institute*

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June 30, 2013

Hon. David Orazetti  
Minister of Natural Resources  
Whitney Block, 6th Floor Room 6630  
99 Wellesley Street West  
Toronto Ontario M7A1W3

Dear Minister Orazetti,

**Re: 2012 Annual Report Ontario Oil, Gas & Salt Resources Trust**

The Ontario Oil, Gas and Salt Resources Corporation (Corporation) is pleased to submit the 2011 Annual Report of the Ontario Oil, Gas and Salt Resources Trust (Trust). The Ontario Petroleum Institute (OPI) is the sole shareholder of the Corporation.

The Trust is a non-profit organization, established by the Oil, Gas and Salt Resources Act, which funds information management relating to the oil, gas and salt resources of Ontario. The Trust's main function is the management of the Ontario Oil, Gas & Salt Resources Library (Library), an important resource centre offering its members and the public a highly sophisticated virtual website that provides the most up-to-date geological information for the exploration and development of crude oil, salt, geological storage of hydrocarbons, and natural gas in Ontario. This same information is of increasing value for the evaluation of groundwater resources and installation of vertical ground-sourced heat pump systems.

Oil continues to flow from wells in the area of the original discovery some 150 years ago. Presently, about 140 private and public companies of differing size and scope produce oil and gas throughout southwestern Ontario. These producers are supported by drilling contractors, well and oilfield services, and a range of professional consulting services, geologists and engineers. As well, southwestern Ontario is also home to significant natural gas storage, cavern storage of liquefied hydrocarbons and petrochemicals, and salt solution mining.

The Board of Trustees with the guidance of the Trust Advisory Committee (TAC) and the support of a dedicated professional staff at the Ontario Oil, Gas & Salt Resources Library are committed to providing cost-effective services to meet the requests of clients from Ontario, across Canada, and internationally.

Sincerely

Ian Colquhoun  
President



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### ***Ontario Oil, Gas and Salt Resources Corporation Financial Statement***



## ***MISSION AND OBJECTIVES***

### ***MISSION***

The Oil, Gas and Salt Resources Trust is a non-profit organization, established by the Oil, Gas and Salt Resources Act to provide information management relating to oil, gas and salt resources, and fund research, surveys, and laboratory facilities and operations relating to oil or gas exploration, drilling or production, the storage of oil, gas and other hydrocarbons in geological formations, and the disposal of oil field fluid in geological formations.

### ***OBJECTIVES***

The Oil, Gas, and Salt Resources Trust's mandate is to maintain and improve access to existing data, and to develop programs to improve client access to information, develop new data products, and to generate new revenue to sustain operations.

The Trust provides services to companies and individuals involved in oil and gas exploration, drilling or production, the storage of hydrocarbons in geological formations, the disposal of oil field fluid in geological formations, and solution mining. Services are also available to the general public, universities and other clients on a cost recovery basis.

The Trust manages the Oil, Gas and Salt Resources Library as a resource centre for oil and gas exploration, salt solution mining, and subsurface storage and fluid disposal in Ontario.

The Library provides its clients in these resource industries with the data they need to conduct their business in the most orderly, safe and efficient way possible. It also provides public access to this data at reasonable cost.

## ***1.0 Executive Summary***

The Oil, Gas and Salt Resources Trust was formed by the Ontario Ministry of Natural Resources (MNR) pursuant to amendments made to the Oil, Gas and Salt Resources Act in 1997. A Trust Agreement, dated February 16, 1998, was signed with the original Trustee, the Ontario Oil Gas & Salt Resources Corporation and responsibilities for operation of the MNR's Oil, Gas and Salt Resources Library (Library) were transferred to the Trustee. The OPI is the sole shareholder of the Ontario Oil Gas & Salt Resources Corporation. The Executive of the OPI are the Trustees of the Corporation and the Managing Director of the Trust is the Executive Director of OPI.

The Library is the key resource centre for the study of Ontario's geological subsurface and continues to invest in an expanding portfolio of digital products to attract investment and interest in Ontario's petroleum, natural gas resources, solution mining and hydrocarbon storage industries. It also funds research, surveys, and laboratory facilities and operations relating to hydrocarbon exploration, drilling, production, the storage of hydrocarbons in geological formations, and the disposal of oil field fluids in geological formations.

The 2013 Business Plan identifies both the long-term strategy and short-term action plans undertaken by the Library as a resource centre of the Ontario oil, and natural gas industry, hydrocarbon storage and salt/solution mining industries.

The Library faces challenging economic conditions as it strives to be a self-sustaining organization that generates the majority of its revenues from the Ontario oil and natural gas industry. Declining revenues from reduced exploration and development activity in recent years has resulted in the Library running operating deficits in 2011 and 2012.

In preparing this Business Plan we have consulted with Library members, clients, and sectors that represent new sources of revenue. We have assessed various areas of potential projects from memberships to projects as a means to raise Library income.

Marketing will be a major focus for the Library in 2013. Through business development and promotion we expect to enhance the profile of the Library and the expertise and services it provides to achieve financial sustainability.

A concentrated effort will be made to deal with the well license fees that make up 45% of budgeted revenue. These fees which are calculated from oil and gas production have declined in recent years as production has fallen. A proposal has been submitted to the Ministry of Natural Resources requesting changes to the fee assessment in Regulation 245/97 as well as a request for an alternative to the existing mechanism for setting well license fees. The changes require the approval of Provincial Cabinet's Legislative and Standards Committee.

The Library will continue to work closely with the Ministry of Natural Resources, supporting where it can the projects that provide both financial benefit as well as the progressive development of Ontario's natural resources.

## ***2.0 The Ontario Oil, Gas and Salt Resources Trust***

The Library can trace its origin to the late 1800's, when the Geological Survey of Canada solicited voluntary submissions of drill cuttings and core from oil and gas wells drilled in Ontario and other parts of the country. This informal collection evolved into the establishment of a core and drill cuttings sample processing, storage and study facility in Ottawa. In 1950, a similar facility was established in Calgary and all Western Canada drill cuttings samples were transferred to Calgary. In 1971, the Ontario cores and drill cuttings samples were shipped to the new Petroleum Resource Laboratory in London, Ontario. The lab was owned and operated by the Ontario Ministry of Natural Resources.

The Oil, Gas and Salt Resources Trust (Trust) was formed by the Ontario Ministry of Natural Resources (MNR) pursuant to amendments made to the Oil, Gas and Salt Resources Act in 1997. A Trust Agreement, dated February 16, 1998, was signed with the original Trustee, the Ontario Oil Gas & Salt Resources Corporation, an entity established by the Ontario Petroleum Institute and responsibilities for operation of the Library were transferred to the Corporation. The OPI is the sole shareholder of the Ontario Oil Gas & Salt Resources Corporation. The Executive of the OPI are the officers of the Corporation and the Managing Director of the Trust is the Executive Director of OPI.

Requirements for a Trust Advisory Committee (TAC) exist within the Act and the Trust Agreement. The TAC is comprised of four representatives from the oil and natural gas exploration and production industry, and one representative from each of the natural gas storage, hydrocarbon cavern storage, and salt solution mining industry. Committee members are appointed by the Trustee to a two-year term. The TAC meets regularly to advise on Library policy, operations and budget.

### ***2.1 The Structure of the Trust Agreement:***

<b>Ontario Ministry of Natural Resources</b>	<b>Trustees (OPI Executive)</b>  <b>Library</b>  <b>Managing Director</b> ↓ <b>Manager</b> ↓ <b>Staff and Contractors</b>	<b>Trust Advisory Committee</b>

## ***2.2 Ontario Oil, Gas & Salt Resources Corporation***

### ***Trustees (Ontario Petroleum Institute Executive)***

Ian Colquhoun, President

Jim McIntosh, First Vice President

Dale Holland, Second Vice President

Jack Norman, Treasurer

Tony Steele, Secretary

## ***2.3 Trust Advisory Committee***

Land: Dale Norman, Elexco Ltd.

Producer: Frank Kuri, Dundee Energy

Salt: Bill Cocchio, Windsor Salt

Natural Gas Storage: Shelie Cascadden, Union Gas

Cavern Storage: Dean Edwardson, Sarnia-Lambton Environmental Association

Consulting: Mike Dorland, Consulting Geologist

Government: Terry Carter, Ministry of Natural Resources (non-voting member)

## ***2.4 Oil, Gas and Salt Resources Library Team***

Hugh Moran, Managing Director

Richard Ostrowski, Manager

Jordan Clark, Operations Technician

Stephanie Ramsahai, Data Entry Operator

Nicole Ramesar-Fortner, Data Entry Operator

### **3.0 Industry Summary**

Ontario's petroleum and salt solution mining industry includes the following activities:

- (i) oil exploration and production;
- (ii) natural gas exploration and production;
- (iii) natural gas underground storage;
- (iv) salt solution mining; and
- (v) hydrocarbon underground storage associated with the petrochemical refining industry

These activities provide Ontario consumers with the following:

- (i) storage of natural gas imported to Ontario from sources in Saskatchewan, Alberta and British Columbia by pipeline and held in reserve to supplement times of peak demand. This becomes very important with the switch from coal to natural gas generation of electricity;
- (ii) table salt and industrial salt – Ontario is a net exporter of salt produced from salt solution mining;
- (iii) underground storage caverns of product necessary for Ontario's petrochemical refining industry;
- (iv) a small percentage of Ontario's demand for oil and related products; and
- (v) a small percentage of Ontario's demand for natural gas

An estimate of the oil and gas industry's contribution to the Ontario economy:

- (i) approximately 1,000 plus people directly employed in exploration, production, storage and salt solution mining in Ontario;
- (ii) industry assets = \$650 million;
- (iii) personal total taxable income = \$55 million;
- (iv) services and goods purchased by the industry = \$90 million;
- (v) lease payments and royalties paid to land owners and the crown = \$10.4 million; and
- (vi) municipal taxes = >\$4 million per year.

The value of production and storage in Ontario in 2011:

- (i) 78,717 m<sup>3</sup> of oil produced = \$47.8 million;
- (ii) 224 million m<sup>3</sup> of natural gas = \$35.7 million;
- (iii) 6,900 million m<sup>3</sup> of natural gas storage capacity = \$2 billion in value;
- (iv) 3.5 million m<sup>3</sup> of hydrocarbon storage capacity = ± \$2 billion in value; and
- (v) Solution Salt Value – no data available.

Overall annual value of oil and gas sector to the Ontario is about \$5 billion.



## ***4.0 Library – A Resource Centre***

### ***4.1 Resources***

The Oil, Gas and Salt Resources Library houses resources and data available for study including: (i) drill cuttings samples from over 13,100 wells; (ii) cores from over 1,027 wells; (iii) file information on approximately 27,000 wells including geophysical logs, formations tops, well history and construction; (iv) oil/gas/water zones, initial completion results; (v) core analyses, (vi) oil/gas/water analyses; and (vii) an extensive collection of reference books, periodicals and reprints on the subsurface geology of oil, gas, salt and subsurface storage resources of Ontario.

One of 2012 highlights was the archiving of all mechanical (geophysical) logs bringing the total scanned to nearly 20,000 logs. The total number of digital logs (LAS) stands at 4,700. A small part of this collection is made up of 780 Sonic logs. Availability of Sonic logs will help stimulate seismic exploration activities in Ontario.

The Ontario Petroleum Data System (OPDS) data entry project is complete with a total count of approximately 26,500 wells on record. The second phase “Data Integrity” project has further enhanced data accuracy and is an ongoing project.

Another ongoing project is the Oil & Gas Production Module accounting for 70,000 annual production reports scanned with operator name and year of registration complete between 1897 and 2011, and 100% of wells registered with a license number between 1992 and 2011.

### ***4.2 Services***

The Library is visited by industry participants wanting to view data files relating to wells drilled in Ontario (i.e., well cards, production information, plugging information, etc.), core and drill cutting samples for wells drilled in Ontario, maps of well locations, and open file reports on the industry. Clients can review materials in the Library, and if relevant, take copies of the data files for studying outside of the Library. An ArcGIS workstation is available for client use and is equipped with MNR’s proprietary PetroGIS software for performing spatial queries on the digital petroleum well database and with Surfer 8© digital gridding and contouring software for subsurface geological mapping. The Library also provides a drill cutting sample service and a core cutting service.

The Library also operates a dynamic website ([www.ogsrlibrary.com](http://www.ogsrlibrary.com)) which contains summaries of reference materials and a growing list of regularly updated reports (drilling activity reports, new well licenses). Member access includes individual well history complete with geology, geochemical analyses of oil, gas and water, production volumes, drill core analyses, well plugging records, and well stimulation and treatment reports.

Basic digital petroleum well data for all counties in Ontario is posted to the Library website for complimentary downloading (well location and historical data). A set of enhanced and value-added subsurface data for all counties is available for purchase. The website is updated regularly with verified county data and digital data products. The Library staff utilizes this digital data for plotting sophisticated maps which combine different data types including well locations, bedrock geology, bedrock topography, oil and gas pools, and digital elevation models for Ontario as well as incorporating results from data queries and filters.

The Production Module for the Library well database now incorporates all 70,000 production forms scanned. These forms are posted on the Library website and can be viewed at no charge by the public. This module also contains digitized monthly production data for all wells completed between 1992 and 2010. This data is available for query and download by individual and corporate members of the Library. The Library has over 7.5 million rows of digital production data.

### ***4.3 Ongoing Initiatives***

#### **4.3.1 Digitization of Hard-copy Petroleum Well Records**

Currently underway is a pilot project to scan original source documents in 4 Counties (Brant, Lincoln, Welland and Wentworth) representing 3,200 well records or 12% of the entire collection. This project is sponsored by MNR and expected to complete in the first quarter of 2013.

#### **4.3.2 Digital Archiving of Geophysical Log**

A major undertaking in 2012 was the digital log archiving which produced 20,000 geophysical log scans from paper records and became the ultimate backup and an online resource. This project will continue into second phase of depth registration for each of the images captured. The project results are hoped to be used in the marketing of the Ontario industry in upcoming OPI magazines.

#### **4.3.4 Seismic Shot Lines**

All seismic shot lines were verified using historical records and a digital compilation was produced. This project was completed in 2012 however more work can be done by locating owners of seismic data (proprietary) to further expose geological sub-structures in Ontario for the benefit of future exploration.

#### **4.3.4 Log Digitizing**

Funding provided by the Targeted Geoscience Initiative of the federal government in 2004 provided budget for hardware/software to scan and digitize hard-copy geophysical well logs, plus some funding for personnel to acquire select project logs. This work has continued using Library resources. Staff have been trained on digital acquisition, and can digitize logs upon client request.

A fee is charged for this work. There is a continuous review of current digital data pricing. There are on-going requests to ensure that digital log submissions are part of the next Operating Standards update. To date 20,000 geophysical well logs have been scanned and catalogued as TIFF files and 4,700 well logs have been digitized as LAS files.

#### **4.3.5 Digital Data Publishing**

The Trust will continue to work, in partnership with the MNR to build, maintain and market a digital database of geological and engineering information on wells drilled in Ontario. The Trust will be the data vendor for information on Ontario oil, gas, and salt and storage resources, based on the Data Resale Agreement with MNR.

##### **Current Activity:**

- MNR has an operational database of all licenced wells in Ontario within the Ontario Petroleum Data System (“OPDS”). All new wells and well information, with the exception of production information, are entered into OPDS. The Library, in conjunction with MNR, has populated the database with old well information and files.
- Sale of value-added subsurface data from OPDS by the Library began in 2003 and will continue through 2013. Data consist of geological formation tops, logging records, and oil/gas/water interval records.
- A data sharing agreement has been signed between the MNR Information Access Section and the Ontario Oil, Gas and Salt Resources Corporation. The agreement allows Corporate Members of the Library to use MNR Digital Base Maps.
- The Library is updating geographic co-ordinates for number of wells, populating the well location metadata record for well location accuracy, and performing quality assurance checks and corrections for oil, gas, and water interval records in the MNR petroleum well database.
- Well production history is one of the most sought after items by Library users. The Library has produced a digital dataset of well production history and has posted the data on its website for use by members. This project was funded in part by the MNR.

## ***5.0 Marketing***

The Library is marketed as resource centre and provider of member and client services. The emphasis is on business development and promotion.

These activities support generating Library sources of non-fixed revenue from three strategic areas:

- **Membership**
- **Data sales**
- **Projects**

### ***5.1 Business Development***

The Library's business development activity targets increases in membership, additional project work and continued sales of information and data.

The geographical markets are Ontario, Alberta, and the mid-western and northeastern USA. In Ontario it's usually the operator of oil, gas, solution mining, natural gas storage, oil field fluid disposal or petroleum product storage wells in the province of Ontario, or a consultant providing services to these operators. Outside of Ontario potential clients are resource exploration companies considering new locations for investment or activity.

The market for membership is to some degree a captured audience – the oil and gas sector, storage and salt solution mining companies that fall under the jurisdiction of the Ministry of Natural Resources. Of 140 companies that are assessed well license fees approximately 30 are Library members. In 2013 the Library will target companies currently licensed but not members as well as companies and individuals from across the industry. The Library also markets sector by sector with specifically targeted campaigns promoting membership in the Library.

The other membership potential is with any sector that does subsurface work in Ontario. This potential was advanced in 2012 part by factors that included the passage of the legislation requiring anyone doing subsurface work in Ontario to become members of Ontario One Call to ensure safety in the workplace, and an incident in Oakville, Ontario that brought into question the safety of geothermal drilling practices in the province, and the passage of Ontario Regulation 98/12, to regulate ground source heat pumps. Companies that drill ground source heat pump wells must now consider subsurface geological conditions prior to drilling new wells.

Potential project work opportunities exist with the Library's member companies, government ministries and related agencies including the Ministry of Natural Resources, the Ontario Geological Survey and Ontario One Call.

The Library will continue to look for opportunities to sell data and information (see Appendix 1), primary assets that the Library has to offer current and potential clients. Various sectors of the economy – energy, telecommunications, construction – responding to market conditions and regulations, specifically environmental compliance, may require resources offered by the Library.

## ***5.2 Promotion***

The Library takes a strategic view to its promotional activity focusing on exhibiting at conferences to obtain exposure to key sectors that represent revenue opportunities for membership, projects and data sales.

The Library, in conjunction with the OPI, develops presentations that feature, to the highest possible level, the benefits that demonstrate the value of each organization.

The list of potential conferences for promotional activity includes but is not necessarily limited to:

- Association of American Petroleum Geologists
- Ontario Petroleum Institute
- Pennsylvania Oil and Gas Association
- Independent Oil and Gas Association of New York
- North American Prospect Expo
- Ontario Groundwater Association
- Ontario Geothermal Association

These conferences as well as others offer potential opportunities for the Library to partner with other organizations, the Ontario Petroleum Institute and the Ontario Ministry of Natural Resources for example to maximize its exposure.

## ***6.0 Revenue and Expenses***

### ***6.1 Revenue***

The Library has fixed and non-fixed revenue from well license fees, memberships, data sales and projects.

The fixed revenue – the largest source – comes from well license fees which are collected annually through Regulation 245/97 which obligates producers to pay a yearly production-based fee assessed by the Ministry of Natural Resources. We are anticipating revenue from fees will remain at par with 2012 revenue. Production declines in recent years have reduced the revenue collected from well licence fees and have resulted in the Library having to fund deficits out of reserves.

The non-fixed revenue from memberships, data sales and projects is projected to show a modest increase in corporate membership income and reductions in individual memberships. Data sales are expected to remain at 2012 levels.

Special projects generate revenue from clients sourced and from business development activity. This includes opportunities from the oil and natural gas sector as well as other industry sectors that do subsurface work in Ontario.

### ***6.2 Expenses***

The Library is challenged to manage its expenses to respond to declining revenues in recent years. While cost efficiencies are necessary on an on-going basis there is a line to draw to ensure that cost reductions do not jeopardize core services.

The expenses for salaries, contract wages, rent, and management fees represent cost areas that have the most significant impact on the budget. Salaries are expected to decrease in 2013 due to a work share arrangement with the Library's Operations Technician seconded to the Ministry of Natural for approximately four months. It is also expected that contract wages will be reduced or contingent on a project basis. The rent is being negotiated to remain at the current level with a potential for reduction. An increase in the management fee anticipates increased activity in the operation of the Library.

It's anticipated that the Library will post a deficit for the fiscal year 2013.

## ***7.0 A Sustainable Future***

The Library has a long history of successfully supporting the oil and natural gas industry, hydrocarbon storage, and the salt/solution mining industries in and outside of Ontario. A self-funded organization with a connection to government not unlike a crown corporation it is an excellent example of how the marketplace and public are well served.

The Library has built-up and maintained a contingency reserve to ensure it has operational stability. For the Library to have a sustainable future without jeopardizing its reserves there are considerations to be given to how its revenue is derived and its expenses funded.

On the revenue side what opportunities exist to expand the revenue base beyond current sources?

The areas to review include:

### **1. Well License Fees**

This item is being addressed with the proposal to have the fees increased in the current structure with an amendment to Regulation 245/97 which will generate, at today's production volumes, approximately \$50,000 annually. The downside of this measure is the process for change is onerous. A request to the Ministry of Natural Resources has also been submitted to have an alternative mechanism be developed to allow the Library the flexibility to set well license fees with oversight not requiring a legislative process.

### **2. Storage Fees**

The Library, by its structure, is an extension of the Ministry of Natural Resources. Its formation was equally important for the Ministry as it was to industry as a valuable resource centre. The Ministry has and continues to support the Library with advice and operations assistance and most importantly, financially through project work.

The Library collects and stores drill cuttings samples and cores from oil and natural gas production that once collected is the property of the Ministry. No fees are currently charged back. Monthly storage fees charged to the Ministry would represent new fixed income.

On the expense side there exist certain possibilities that would provide stability.

### **1. Rent**

The Library has rented space at 669 Exeter Road through a lease agreement with property management firms contracted by the Government of Ontario since its inception in 1997. An extension to the agreement is being negotiated.

Recognizing that the Library is as much a resource support for the Ministry of Natural Resources as part of its responsibility under the Ontario Oil, Gas and Salt Resources Act an argument could be made to have the Ministry provide financial support through a rent subsidy or to provide the facilities as an extension of its ministerial responsibilities.

### **2. Trust Management Fee**

Future growth of the OPI and the Library could result in a reduction of the management fee.

## ***8.0 Priorities 2013***

(1) Generate new revenues to sustain operations

Marketing activity to increase membership, project contracts, and increased client services.

(2) Data services and products

Provide the most up-to-date data available and develop a broad selection of products to offer members and clients

(3) Client access to information

Provide members and clients with ease of access – onsite and online – to the store of information housed in the Library.

(4) Develop initiatives from the choices outlined in 7.0 A Sustainable Future to secure long-term financial stability for the Ontario Oil, Gas and Salt Resources Library