## Oil And Gas Review

# 2007 Report

Alberta Securities Commission

May 2008



## **Table of Contents**

1.	Introduction and Summary	
2.	Reporting and Reserves Deficiencies and Observations	4
2.1	Background	4
2.2	Issues Related to Underlying Technical Assessments	4
2.3	Requirement to use NI 51-101 Disclosure Standards for Resource Classes	5
2.4	Misuse of Classification and Terminology	5
2.5	Disclaimers on Reserves Estimates	5
2.6	Issues and Observations Related to the Disclosure of Unconventional Resources	5
2.7	Other Issues Related to News Releases	9
3.	Updates to National Instrument 51-101, Evaluation Standards and National Instrument 51-102	10
3.1	Revision of National Instrument 51-101	10
3.2	Update on Evaluation Standards	12
3.3	Update to NI 51-102 Continuous Disclosure Obligations - Forward-looking Information	12
4.	Other Special Activities and Projects	13
4.1	Analysis of Technical Revisions	13
4.2	Review of Bitumen Recovery Projects	14
4.3	International Policy Development	14
5.	Conclusion and Contact Information	15

## 1. Introduction and Summary

The Alberta Securities Commission (ASC) oversees the second largest capital market in Canada and is home to companies with market capitalization of approximately \$566 billion listed on the TSX and TSX Venture Exchanges. Forty-one per cent of those Alberta-based businesses are engaged in the oil and gas industry and this translates into 73 per cent of the aggregate capital market value of those publicly listed issuers in Alberta. With that in mind, the ASC is focused on providing support and guidance to this unique group of market participants.

Widely recognized as a leader in the field of oil and gas disclosure rules and regulation, the ASC maintains a specialized team of oil and gas experts. Throughout the year, the ASC's oil and gas team

Forty-one per cent of
Alberta-based businesses
listed on the TSX and
TSX-V are engaged in
the oil and gas industry.

reviews the disclosure of various energy companies participating in Alberta's capital market and prepares this report to provide guidance to issuers in order to improve disclosure relating to their oil and gas activities. Clear and timely disclosure is essential for a fair and efficient capital market in Alberta.

This Oil and Gas Review 2007 Report (2007 Report) is the fourth annual ASC publication of its review of the disclosure required by National Instrument 51-101 Standards of Disclosure For Oil and Gas

Activities (NI 51-101). Reports for previous years can be found on the ASC website at www.albertasecurities.com.

There are approximately 380 oil and gas reporting issuers (RI) in Alberta that are required to provide oil & gas disclosure. The 2007 Report is based on reviews of the reserve information of approximately 125 RIs as well as monitoring compliance of the required annual disclosures and news releases.

### **Summary of Issues and Observations**

#### **General Observations**

The improvement in the general quality of reserves evaluation reports that was noted in last year's report has continued, although the same types of deficiencies still occur. These include:

- the selection of inappropriate reservoir analog information, especially for unconventional resources;
- optimistic estimates of volumetric drainage areas, with consequent low production decline rates that were not supported by subsequent production;
- negative volumes for proven undeveloped (PUD) reserve volumes on the "Statement of Reserves Data" table;

- inadequate explanation in reserve reports, leading to requests for additional information;
- incorrect use of classification and terminology for reserves and other resources in news releases and webcasts, especially for resource categories other than reserves;
- the use of definitions of resources and reserves other than those prescribed by NI 51-101;
- inappropriate disclaimers on estimates of reserves;
- inadequate detail regarding disclosure of exploration and development activities; and
- administrative deficiencies resulting from careless preparation and editing, including arithmetic
  errors, transposition errors between the reserves report and the disclosures, and differences in
  values and volumes for the same information, in different parts of the disclosure.

#### **News Release Review Program**

We commenced a comprehensive program this year to target the review of news releases and other company disclosure not included in the annual disclosure required by NI 51-101. A common deficiency is the misuse of terminology, and where appropriate we contacted RIs on this issue. News releases that were more promotional than factual also garnered attention and further review. In doing so, we seek to educate RIs about how to ensure that news releases conform to the required standard of disclosure, but in some cases RIs were required to issue corrective news releases. The goal of the review process is to ensure that all disclosure follows the requirements of NI 51-101.

#### **Going Forward**

Following an extensive review and consultation process, revisions to NI 51-101 became effective on December 28, 2007 and will be the basis for future disclosure requirements.

Activity on unconventional resources, particularly bitumen and coalbed methane, but also on shale gas and shale oil, continues to increase. Much of this activity is at a relatively early stage before any reserves can be assigned and disclosure of volumes or values is voluntary. However, given their significance, staff at the ASC (Staff) will continue to focus on disclosure relating to these resources. We will also continue to review the NI 51-101 annual disclosures and the more detailed technical reviews of reserves and resource information for both conventional and unconventional assets. There will be a continued emphasis on the review of news releases. The results of these reviews will be reported in subsequent Oil and Gas Review reports.

## 2. Reporting and Reserves Deficiencies and Observations

#### 2.1 Background

RIs disclose information on their oil and gas activities in a variety of ways, including the required annual disclosures under NI 51-101, prospectuses, press releases and webcasts. Staff may review this information through a number of programs that cover both compliance and technical content. We may also carry out studies on specific issues of a technical nature.

There are three levels of review: Statutory Filing Review, Compliance Review and Technical Review.

#### Statutory Filing Review

This preliminary review determines whether the required disclosure has been filed without conducting a detailed examination of the content. Failure to file the required disclosure by the due date automatically results in an RI being placed on a default list until we receive the required disclosure filings.

#### Compliance Review

NI 51-101 standards require the disclosure of certain specified information (e.g. proved and proved + probable reserves). It also prescribes the manner in which certain voluntary disclosure (e.g. possible reserves, contingent resources and prospective resources) must be made.

A compliance review ascertains whether the required disclosure is present and whether both the required and any voluntary disclosure is made in accordance with NI 51-101 standards.

#### Technical Review

A technical review is the most intensive level of review. It involves assessing the quality of disclosure in detail and often includes a review of the reserves or resource evaluation report that underlies public disclosure.

Because evaluations of reserves and other resource categories are estimates, a technical review is primarily an assessment of whether the evaluation is consistent with basic underlying information (e.g. cores, logs and production history), and that it has been prepared in accordance with good geological and engineering practice and the evaluation standards set out in the Canadian Oil and Gas Evaluation Handbook (COGEH).

Our observations from these reviews are summarized in the following subsections.

#### 2.2 Issues Related to Underlying Technical Assessments

In keeping with the general trend, there continues to be an improvement in the overall quality in this area. However there are issues we have discussed in prior reports that continue to recur, including:

 the selection of appropriate reservoir analog information, especially for unconventional resources;

- optimistic estimates of volumetric drainage areas, with consequent low production decline rates that were not supported by subsequent production;
- negative volumes for PUD volumes on the "Statement of Reserves Data" table; and
- inadequate explanation in reserves reports, leading to requests for additional information.

#### 2.3 Requirement to use NI 51-101 Disclosure Standards for Resource Classes

We require disclosure of oil and gas resources under NI 51-101 to be made using the classification system in the COGEH Volume 1, 2nd Edition, Section 5, Definitions of Resources and Reserves. Other classification systems were not accepted. In 2007, changes were made to the resource classification nomenclature that brought COGEH usage closer to the Petroleum Resource Management System (PRMS). The changes were relatively minor and will not have significant impact on most disclosure.

#### 2.4 Misuse of Classification and Terminology

Annual disclosures almost invariably contain the required classification and terminology. The reviews of news releases in the last year showed that, although most news releases use correct terminology, a misuse of terminology is not unusual, especially when disclosing information on categories of resources other than reserves. For example, the term "recoverable resource" is common, but it is often unclear whether it refers to reserves, contingent resources or prospective resources. The term "in-place" is also common, but it is often difficult to determine which category of resource it is applied, and in some cases it is unclear whether a volume to which it refers has even been discovered. When we identify misuse of classification or terminology, the RI is contacted and, depending on the significance of the issue, the RI is either required to correct the usage in the future, or to issue a corrective news release. In some instances, we may conduct a further review of the RI's disclosure.

#### 2.5 Disclaimers on Reserves Estimates

Disclosures occasionally contain inappropriate, often boilerplate disclaimers with regard to estimates of reserves. All such estimates must be prepared following guidelines from COGEH, which mandate that they be classified according to the probability of recovery. Disclaimers that suggest otherwise, such that they are 'speculative' are inappropriate, and Staff will require that they be removed from disclosure. For the disclosure of resource estimates, the RI must provide the specific cautionary statement prescribed for the type of resource disclosed.

#### 2.6 Issues and Observations Related to the Disclosure of Unconventional Resources

"Unconventional resources" is a useful colloquial term for hydrocarbon accumulations where hydrodynamic forces play an insignificant role, and where the physical mechanisms that trap the hydrocarbons are not the same as for the traditional "conventional" accumulations. This term may apply

to coalbed methane, oil sands, oil shales, tight and basin-centred gas, shale gas and methane hydrates. Each requires its own approach to development and has its own distinctive performance characteristics.

Most of the disclosure on unconventional resources we have seen in the last year concerned bitumen, but there was also some disclosure on shale gas and shale oil. Much of the activity, especially for shale gas and oil was at an early stage before any production or test information was available. The increase in unconventional resource activity raises many questions with regard to their evaluation, classification and disclosure. Much of the misuse of classification and terminology we commented on above was in connection with this type of disclosure, especially in the early stages of exploration and development. Issues of particular note (some of which also apply to conventional hydrocarbon accumulations) include:

#### i) Classification as Discovered Petroleum Initially-In-Place'.

Classification of a resource as "discovered petroleum initially-in-place" is a prerequisite for further classification as a contingent resource or as reserves, and RIs should ensure that the conditions are fully satisfied. A key condition is that a discovered petroleum initially-in-place must be in a "known accumulation", which is defined in COGEH as:

"An accumulation that has been penetrated by a well. In general, the well must have demonstrated the existence of hydrocarbons by flow testing in order for the accumulation to be classified as "known". However, where log and/or core data exist, and there is a good analogy to a nearby and geologically comparable known accumulation, this may suffice."

The definition of "known accumulation" contains two fundamental conditions:

- An accumulation must have been penetrated by a well. Usually this is fairly easily satisfied, often with many wells.
- The existence of hydrocarbons must have been demonstrated by flow testing, or possibly by good analogy. This requirement is sometimes ignored or inadequately satisfied with mediocre or poor analogs. Demonstrating the existence of hydrocarbons by flow testing is often complex for an unconventional accumulation. Primary production is uncommon and extensive pilot testing and stimulation is often required.

In contrast to conventional accumulations for which there are many thousands of analogs, there is limited analog information on production from unconventional reservoirs. For example, Steam Assisted Gravity Drainage (SAGD) is the currently favoured recovery process for bitumen, but there are only about 200 or so SAGD well pairs, many of which have a short production history.

<sup>&</sup>lt;sup>1</sup> Prior to the recent revision of terminology in COGEH Volume 1, 2<sup>nd</sup> Edition, this was called "Discovered Resource".

#### ii) Use of Analog Information

Analogs are widely used and provide valuable information for the evaluation of all types of hydrocarbons<sup>2</sup>. NI 51-101 allows the use of analogous information from beyond an RI's area of interest provided that certain conditions are met for disclosure (refer to section 5.10 of NI 51-101). There are many analogs for conventional hydrocarbon activities, but few for unconventional activities, and their selection and analysis is often poor. Staff will be paying more attention to, and requesting technical support for the use of analogs in future evaluations.

#### iii) Classification to the Most Specific Category

The recent amendments to NI 51-101 added a requirement that any disclosure of reserves or resources must relate to the most specific category of reserves or resources in which the reserves or resources can be classified. This provision was the result of a number of disclosures, mainly in news releases, of large volumes of discovered petroleum initially-in-place without any indication of the likelihood of development or large volumes of undiscovered petroleum initially-in-place without any indication of the likelihood of discovery or of development.

In exceptional circumstances, an RI may be unable to classify the resources in a subcategory of discovered resources, in which case it must provide a comprehensive explanation as to why the resources cannot be classified in a subcategory. When this is the case, Staff will review the explanations to ensure that they justify the claim. We may require additional disclosure, especially when there is uncertainty about the ability to recover with currently available technology.

#### iv) Extrapolation of Well Data

Conventional resources generally occur in relatively well-defined and delimited accumulations, which provides a boundary beyond which information can be extrapolated from a control point such as a well. In contrast, unconventional resources typically cover very large areas with ill-defined boundaries, and are often described as "diffuse", "disseminated" or "dispersed" in the technical literature. Depending on well data, geology and seismic information, it may be valid to extrapolate the presence of a geological unit over large areas, and possibly the presence of hydrocarbons. However, the sensitivity of productive capability to minor variations in reservoir properties (e.g., clay mineralogy) and reservoir architecture over even a short distance means that the extrapolation of productive capability should be limited.

We have seen examples where there has been extreme extrapolation over a wide area, not only of the presence of a formation, but of productivity. Reserves may be assigned in a limited area around a control point, and contingent resources to an area beyond that, but beyond a certain limit prospective resources should be assigned. The area over which it will be reasonable to extrapolate will be a function

<sup>&</sup>lt;sup>2</sup> A useful technical reference on the selection and use of analogs is: Hodgin, J. E. & Harrell, D. R., 2006, The Selection, Application, and Misapplication of Reservoir Analogs for the Estimation of Petroleum Reserves. SPE Paper 102505.

of the information available. Staff will be looking for substantial technical support for the extrapolation of resource classes beyond the immediate vicinity of control point information.

#### v) Bitumen and Synthetic Crude Oil

The number of RIs with oil sands interests is increasing each year. At the present time, most bitumen is recovered by mining, with a substantial and increasing proportion coming from in-situ thermal methods. Most of the in-situ recovery is currently due to cyclic steam stimulation (CSS), although most new projects are being developed using the SAGD process. New technologies are under development but not yet in commercial operation. An increasing proportion of bitumen will be upgraded to produce a Synthetic Crude Oil (SCO).

We require RIs to make their disclosure on the product at the first point of sale. For example, an RI may report bitumen reserves for sales of bitumen and SCO reserves for SCO sales, but not for bitumen that it plans to upgrade to SCO.

In 2007, the Staff completed seven detailed technical reviews for RIs with oil sands properties under the continuous disclosure program. A number of these RIs have properties that are at a stage where they cannot be assigned reserves. Reviews of RIs' news releases on this type of disclosure also showed a number of instances of incorrect use of terminology, resulting in a request for corrective disclosure.

After review of these RIs, Staff requested more information or clarification on:

- the exact process that will be used to extract the bitumen;
- the reserve category classification and the analogies used in an evaluation;
- the high oil recovery factors that are sometimes seen;
- the overall methodology of an evaluation; this is particularly the case where Staff have reviewed only high-level corporate summaries;
- the marketable product and the exact point of sale on which an evaluation is based;
- an explanation of inconsistencies seen in figure and table labelling;
- thief zones such as top gas, bottom water, high permeability or intermediate water zones;
- the likelihood of upgrading and/or processing capacity being available in the future;
- the mode of SAGD operation; low pressure or high pressure; and
- the addition of reserve + resource volumes; although categorisation and reporting should be carried out to and reported at the lowest possible level, RIs may also combine categories

(provided a breakdown is also included) but they must be risked appropriately and provide an explanation.

We have occasionally seen negative PUD volumes in the applicable statement of reserve data table, and have requested changes to correct this anomaly. We have seen some disclosures in which possible reserves have been assigned on a standalone basis. The recent revision of COGEH indicates that possible reserves should not be assigned on a standalone basis. When we see this, we will request an explanation and it will most probably result in their reclassification of possible reserves as a contingent resource.

#### vi) Coalbed Methane

Although usually classified as an "unconventional resource", the procedures for the evaluation and disclosure of coalbed methane are reasonably well established. At this time, many of the issues that these types of deposits raise with regard to reserves are not significantly different from those for conventional resources.

#### vii) Shale Gas

As reservoir quality decreases, there is a general continuum from conventional gas accumulations, to tight gas reservoirs, to shale gas reservoirs. We expect activity on shale gas reservoirs to increase, but at this time there is limited disclosure that can clearly be classified as being in respect of shale gas reservoirs.

#### viii) Shale Oil

We have seen some early activity on shale oil accumulations, but at this time there is no active production.

#### 2.7 Other Issues Related to News Releases

While most news releases were made substantially in accordance with NI 51-101, we found instances where they were more promotional than factual in nature. RIs should be aware that news releases must meet the standards and requirements of NI 51-101 and should generally conform with National Policy 51-201 *Disclosure Standards*. If they do not, we may require RIs to issue a correctional news release. Many of the issues arising from the reviews of news releases have already been covered in the examples above, but specific issues included:

- reporting only high (sometimes medium and high) case estimates without a low case estimate; and
- adding across classes without accounting for different levels of risk; an extreme example is the addition of proved + probable + possible reserves to high case contingent resources and high case prospective resources.

# 3. Updates to National Instrument 51-101, Evaluation Standards and National Instrument 51-102

#### 3.1 Revision of National Instrument 51-101

Since NI 51-101 came into force in September 2003, it has been recognized as providing Canada with one of the most comprehensive disclosure regimes in the world. Based on the results of reporting since then, as well as consultations with stakeholders that were carried out in 2006 and feedback concerning the amendments in 2007, we identified improvements for the rule. An amended version came into effect on December 28, 2007. The amended NI 51-101 is available on the ASC website and reporting issuers should consult this version for current disclosure standards. The amendments include:

#### i) Definitions

- Adding a definition of "analogous information", as used in the amended section 5.10.
- Adding a definition of "anticipated results", as used in section 5.9.
- Changing the definition of "independent" to make it more consistent with other securities legislation.

#### ii) Reserves Data<sup>3</sup>

- Eliminating the mandatory use of constant year-end prices and costs in the future net revenue disclosure in the annual disclosure. This disclosure may be made voluntarily.
- Eliminating the future net revenue reconciliation in the annual disclosure.
- Reconciling reserves on gross, instead of net reserves. Rls may also voluntarily provide a reconciliation on net reserves.
- Requiring more extensive disclosure on PUDs.

#### iii) Classes Other than Reserves Data

NI 51-101 allows voluntary reporting of classes of resources other than reserves, e.g. contingent resources. The sections of NI 51-101 covering this reporting were rewritten to simplify and modify them as required. The requirements for all such disclosure include:

Use of the required classification and terminology.

<sup>&</sup>lt;sup>3</sup> Defined in NI 51-101 as proved and probable reserves and related future net revenue.

- A requirement to classify to the lowest possible level because we were seeing disclosure of large volumes of discovered or undiscovered petroleum initially-in-place without any indication that there would be recoverable volumes.
- If a resource quantity or value is disclosed, additional requirements must be met, which include:
  - o the definition of the resource category used for the estimate must be provided;
  - o significant positive and negative factors relevant to the estimate must be provided, and in the case of contingent resources, specific contingencies must be explained;
  - o prescribed cautionary language must be provided; and
  - o the estimate must be prepared or audited by a qualified reserves evaluator or auditor.
- Anticipated results include any information that may indicate the potential values or quantities
  of any class or category of resource, such as net pay, areal extent or flow rates. If anticipated
  results from resources are disclosed, they must be accompanied by certain basic information
  including:
  - o the RI's interest in the resource;
  - the resource's location;
  - o the product types expected; and
  - o risks and uncertainties related to the recovery of the resource.
- Analogous information as defined in NI 51-101, such as the report of a national geological survey with resource estimates may be disclosed. However, certain disclosure relating to that information must be provided, including:
  - o the source and date of the analogous information;
  - o whether it is independent;
  - o whether it has been prepared by a qualified reserves evaluator or auditor; and
  - o a discussion of the relevance to the RI's oil and gas activities.
- An estimate of resource quantities or values for an area in which a RI owns or is expected to own an interest cannot be based solely on the use of analogous information, but must be

prepared specifically for that area and must satisfy the requirements for resource estimates in NI 51-101.

#### iv) Forms 51-101 F2 and F3

One change to the reports in the form prescribed by Forms 51-101 F2 and F3 is the addition of a statement that variations between the estimates of reserves data and the actual results should be consistent with the fact that reserves are categorized according to the probability of their recovery.

#### v) Companion Policy 51-101CP and Glossary

Companion Policy 51-101 CP, which provides guidance on how to interpret and apply NI 51-101, has been amended accordingly to provide additional guidance as required. The glossary that was previously part of the Companion Policy has been severed and has been published as CSA Staff Notice 51-324 *Glossary to NI 51-101 Standards of Disclosure for Oil and Gas Activities*.

#### 3.2 Update on Evaluation Standards

NI 51-101 refers to the COGEH for the standards RIs must follow when evaluating oil and gas reserves and resources. It is prepared by the Society of Petroleum Evaluation Engineers (Calgary Chapter) and includes, in Volume 1, reserves and resource definitions of the Petroleum Society of CIM Standing Committee on Reserves Definitions.

The second edition of Volume 1 of the COGEH that was issued in 2007 is the standard that RIs engaged in oil and gas activities should follow. Part of the second edition revisions was to bring the COGEH requirements closer to an evolving international standard of reserves and resource classification, the PRMS. The revised definitions to be used in future reporting contain some changes in resource classification nomenclature, but these are not likely to have a significant impact on most disclosure. The PRMS is based on a long-standing resource classification system of the Society of Petroleum Engineers, which was revised in cooperation with other major technical societies and issued in 2007.

Evaluation standards for unconventional resources are in a relatively early stage of development. A third volume of COGEH is scheduled for publication in 2008, with sections on the evaluation of coalbed methane, international properties (mainly on production sharing agreements) and bitumen.

#### 3.3 Update to NI 51-102 Continuous Disclosure Obligations - Forward-looking Information

Effective December 31, 2007 one of the key amendments made to NI 51-102 *Continuous Disclosure Obligations* was in respect of forward-looking information, including future oriented financial information (FOFI) and financial outlooks. Oil & Gas RIs should be aware that any forward-looking information they disclose is covered by the new requirements. Some examples may include such items as estimated

production rates and finding or development costs. There are additional requirements for any FOFI or financial outlooks disclosed.

Oil and Gas RIs disclosing FOFI or financial outlooks that are required by NI 51-101 are not subject to the additional requirements.

## 4. Other Special Activities and Projects

Other special projects in progress during the year included:

#### 4.1 Analysis of Technical Revisions

Technical revisions are changes in estimates as a result of new information acquired over the previous year for properties that were owned at the start and at the end of the reporting period. They do not include the result of factors such as infill drilling or price changes.

Technical revisions to reported reserves are a category in the reserves reconciliation required by Form 51-101 F1. They serve as an indicator of the quality of an Rl's prior period reserves estimates, based on the following criteria:

- proved reserves are a high-confidence estimate and technical revisions to proved reserves should be positive; and
- proved + probable reserves are an estimate of what will actually happen and consequently, technical revisions to proved + probable reserves should be close to zero. A significant deviation from zero may be an indication of bias.

We gave a detailed analysis of technical revisions in previous reports using data as reported. In 2007, an extensive review of the reported data was carried out. For instance, some corrections were made for preparation errors and the transfer of infill drilling results from technical revisions to the correct reporting category of improved recovery, but had limited impact. The number of RIs in the database was also increased, which was the main reason for changes from previously reported data. The revised results are shown in Table 1, next page.

		Light & Medium Oil	Heavy Oil	Natural Gas
No. of Companies	2003	158	51	199
	2004	195	64	223
	2005	233	78	255
	2006	232	74	269
Proved % Technical Revisions	2003	(4.5)	(16.2)	(6.6)
	2004	5.2	4.7	(0.5)
	2005	3.7	1.1	2.7
	2006	4.5	7.1	(0.3)
Proved + Probable % Technical Revisions	2003	1.0	(14.8)	(3.3)
	2004	1.2	(0.9)	(3.8)
	2005	(0.4)	(2.5)	(1.2)
	2006	2.7	4.4	(3.3)

Table 1. Technical Revisions as a Percentage of Reserves

The revisions in 2003 probably reflect an adjustment to a new reporting regime. When the first year is excluded, the results are close to what is expected, generally positive technical revisions for proved reserves and small technical revisions for proved + probable reserves. The reason for a series of negative technical revisions for proved + probable natural gas is unknown, but may be due to misallocation and subsequent adjustment of coalbed methane volumes, which should be reported separately from natural gas. However, caution is advised since data for several more years will be needed before conclusions can be drawn with any degree of confidence.

In previous years, graphs showing the technical revisions as a percentage of the total reserves have been provided. The 2006 data shows the same patterns as previous years, and are therefore not repeated. Previous reports should be consulted for details of these graphs and their use. An RI whose data point is an outlier from the general pattern will be selected for continuous disclosure review of its reserves.

#### **4.2 Review of Bitumen Recovery Projects**

Because of its increasing importance, Staff is conducting an ongoing review of bitumen recovery and the disclosure of bitumen reserves and resources and associated products, such as SCO.

#### **4.3 International Policy Development**

#### i) Petroleum Resource Management System

The PRMS was issued in March 2007, and is a recent revision of the long-established Society of Petroleum Engineers (SPE) Resource Classification System, carried out as a joint project with SPE, the American Association of Petroleum Geologists (AAPG), the World Petroleum Council (WPC), and the Society of Petroleum Evaluation Engineers (SPEE). These societies represent a large number of

petroleum industry technical professionals from many countries. Staff was involved in providing input to the creation of the PRMS.

The PRMS has been recognised by the United Nations as the classification system for oil and gas and is likely to develop into an international standard. It is very similar to the current system in use in Canada, and few changes would be required to use the PRMS for NI 51-101 reporting.

At this time, the PRMS is not recognized for securities regulatory reporting in Canada, and reports issued using the PRMS will be required to be revised to meet the requirements of NI 51-101.

## ii) United Nations Framework Classification System for Fossil Energy and Mineral Resources (UNFCS)

The UNFCS was originally established as a resource classification system for solid minerals but in a recent initiative, under the auspices of the United Nations Economic Commission for Europe (UNECE), it has been developed as a system for oil and gas. Within UNFCS, the PRMS is recognized as the standard for oil and gas classification and an equivalent system, the Joint Ore Reserves Committee code (JORC), is recognized for most solid ore minerals. It is not likely to be used for securities regulatory reporting in the foreseeable future, but it provides a means of comparing resources classified using different systems by mapping them to UNFCS. Staff are represented on the Ad Hoc Group of Experts on Harmonization of Fossil Energy and Mineral Resources Terminology that is concerned with the UNFCS and have provided input on Canadian practice.

### 5. Conclusion and Contact Information

Staff at the ASC are committed to doing our part in the maintenance and on-going improvement of a healthy capital market for the oil and gas industry.

We will continue to proactively review the disclosure of oil and gas issuers, monitor current developments and maintain contact with the industry.

In addition to our regulatory reviews, Staff receives numerous questions and enquiries from issuers and advisors. If you have any questions regarding this report or the rules related to oil and gas, please contact us for further information.

Alberta Securities Commission 300 - 5th Avenue SW Calgary AB T2P 3C4 www.albertasecurities.com

Dr. David C. Elliott, P. Geol., Chief Petroleum Advisor (403) 297 4008 or david.elliott@seccom.ab.ca

Blaine Young, Associate Director, (403) 297 4220 or blaine.young@seccom.ab.ca