Commerciality and NI 51-101

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Agenda

Alberta Securities Commission

1. Introduction
2. Regulatory framework
3. Commerciality and NI 51-101
4. Questions and comments

Introduction
Alberta Securities Commission

- Administers Alberta's securities laws
  - Entrusted to
    - Foster a fair and efficient capital market
    - Protect investors
- Member of the Canadian Securities Administrators (**CSA**)
  - Includes all provinces and territories
  - Improve, coordinate and harmonize regulation
- CSA's lead oil and gas (**O&G**) regulator

Introduction
Petroleum

- Oversee reporting issuers (**RIs**) engaged in O&G activities
  - Conduct reviews
    - Disclosure
    - Evaluations of reserves and resources other than reserves (**ROTR**)
  - Develop and maintain
    - Securities legislation
    - Technical guidance
  - Communicate with our capital market

Agenda

Alberta Securities Commission

1. Introduction
2. **Regulatory framework**
   a. **Introduction**
   b. **Legislation**
   c. **Guidance, etc.**
3. Commerciality and NI 51-101
4. Questions and comments

Regulatory framework
Introduction

- RIs are responsible for their disclosure
  - Professional service providers play a key role
- Both must be mindful of
  - Securities legislation designed for the provision of information that is
    - Timely
    - Useful
    - Reliable
  - Applicable
    - Rules and requirements of professional organizations
    - Legislative requirements and restrictions

Regulatory framework
Legislation

- General securities legislation, including *Securities Act* (Alberta)
- National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities* (**NI 51-101**)
  - For RIs engaged in O&G activities
    - General disclosure standards
    - Specific annual disclosure requirements
  - Five related forms for filing, including
    - 51-101F1 *Statement of Reserves Data and Other Oil and Gas Information* (**Form 51-101F1**)

Regulatory framework
Legislation

- 51-101F2 *Report on [Reserves Data][,] [Contingent Resources Data] [and] [Prospective Resources Data] by Independent Qualified Reserves Evaluator or Auditor* (**Form 51-101F2**)
  - When signed and filed, representation is made that data has been determined and is in accordance with the COGE Handbook
- 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure* (**Form 51-101F3**)
  - When signed and filed, representation is made regarding approval of
    - Content and filing of Form 51-101F1
    - Filing of Form 51-101F2, if it contains reserves or ROTR
    - Content and filing of Form 51-101F3

Regulatory framework
Guidance, etc.

- Companion Policy 51-101CP *Standards of Disclosure for Oil and Gas Activities* (**51-101CP**)
  - CSA's interpretation and application of NI 51-101 and related forms
- Staff notices (**SN**), including
  - CSA SN 51-324 *Revised Glossary to NI 51-101* (**SN 51-324**)
- Canadian Oil and Gas Evaluation Handbook (**COGE Handbook**)
  - Technical standard for NI 51-101
- Annual oil and gas review reports

Agenda

Alberta Securities Commission

1. Introduction
2. Regulatory framework
3. **Commerciality and NI 51-101**
   a. **Introduction**
   b. **Classification**
   c. **Chance of development**
   d. **Development timing**
   e. **Key points**
4. Questions and comments

Commerciality and NI 51-101 Introduction

- The Canadian O&G industry is facing many challenges

Commerciality and NI 51-101
Introduction

- The evaluation and disclosure of reserves and ROTR must account for <u>everything</u> that influences commerciality
  - Under NI 51-101, commerciality is the foundation of
    - Evaluation of reserves and ROTR
      - Estimation
      - Classification
    - Disclosure of reserves and ROTR
  - Recall that this is a shared responsibility

Commerciality and NI 51-101
Introduction

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- CSA SN 51-324 defines commercial as

When a *project* is commercial this implies that the essential social, environmental, and economic conditions are met, including political, legal, regulatory, and contractual conditions. Considerations with regard to determining commerciality include

- economic viability of the related development *project*;
- a reasonable expectation that there will be a market for the expected sales quantities of *production* required to justify development;
- evidence that the necessary *production* and transportation facilities are available or can be made available;
- evidence that legal, contractual, environmental, governmental, and other social and economic concerns will allow for the actual implementation of the recovery *project* being *evaluated*;
- a reasonable expectation that all required internal and external approvals will be forthcoming. […]
- evidence to support a reasonable timetable for development. […] [*COGE Handbook*]

Commerciality and NI 51-101
Introduction

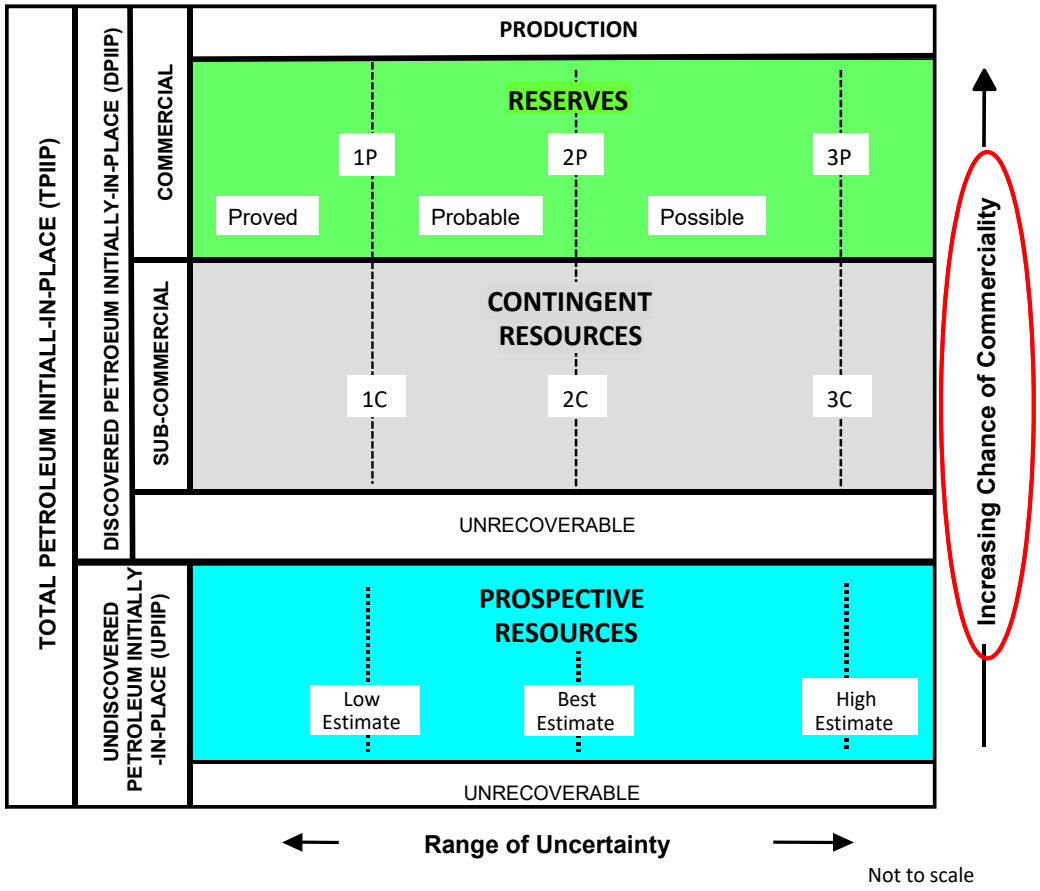
- Section 1.2 of volume 1 of the COGE Handbook states

> Reserves and net present values are estimates prepared using input data, professional judgement, and forward-looking assumptions at a particular point in time (the effective date).

  - Commerciality considerations are made at the effective date
    - They may materially influence
      - Input data
      - Professional judgement
      - Forward-looking assumptions
  - As things can change post effective date; ongoing assessment is needed
  - Consider disclosure requirements, including
    - NI 51-101
    - *Securities Act* (Alberta)

Commerciality and NI 51-101 Classification

- Per the COGE Handbook, commerciality informs classification



Commerciality and NI 51-101 Classification

- CSA SN 51-324 defines
  - Chance of commerciality ($\mathbf{C_{Comm}}$) as

The product of the *chance of discovery* and the *chance of development.* [*COGE Handbook*]

  - Chance of discovery ($\mathbf{C_{Disc}}$) as

The estimated probability the exploration activities will confirm the existence of a significant *accumulation* of potentially recoverable *petroleum*. [*COGE Handbook*]

  - Chance of development ($\mathbf{C_{Dev}}$) as

The estimated probability that, once discovered, a *known accumulation* will be *commercially* developed. [*COGE Handbook*]

Commerciality and NI 51-101 Classification

- Section 1.1 of NI 51-101 defines risked as

> [A]djusted for the probability of loss or failure in accordance with the *COGE Handbook*;

  - If C_{Dev} = < 100%, commerciality is at risk
    - Risk is present

- Section 2.5.1 of volume 2 of the COGE Handbook states

> A contingency is any factor that prevents current commercial development of a discovered petroleum resource. […] Every contingency has a risk that it will not be resolved […]

Commerciality and NI 51-101 Classification

- Considering commerciality and risk in classification
  - Reserves
    - C_{Disc} = 100% (they are discovered)
    - C_{Dev} = 100% (they will be developed)
    - Therefore, C_{Comm} = effectively 100%
      - No commerciality gap; no risk exists
  - Contingent resources
    - C_{Disc} = 100% (they are discovered)
    - C_{Dev} = < 100% (they may be developed)
    - Therefore, C_{Comm} = < 100%
      - Commerciality gap; risk exists due to one or more contingencies

Commerciality and NI 51-101 Classification

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- Prospective resources
  - C_{Disc} = < 100% (they are undiscovered)
  - C_{Dev} = < 100% (if they are discovered, they may be developed)
  - Therefore, C_{Comm} = < 100%
    - Commerciality gap; risk exists

Commerciality and NI 51-101 Classification

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- Industry challenges reflect commerciality considerations
  - Market access
  - Transportation
  - Environment
  - Regulatory…
- Recall commerciality considerations may materially influence
  - Input data
  - Professional judgement
  - Forward-looking assumptions

Commerciality and NI 51-101 Classification

- So, evaluations must assess commerciality considerations
  - Classification
    - Reserves
      - Incompatible with contingencies and risk
      - If present, potentially reclassify to contingent resources
    - Contingent resources
      - Project maturity sub-classes (**PMSC**) may vary with contingency changes
      - Contingency removal may permit reserves assignment
  - Development
    - Plans (including timing)
    - Costs

Commerciality and NI 51-101
Chance of development

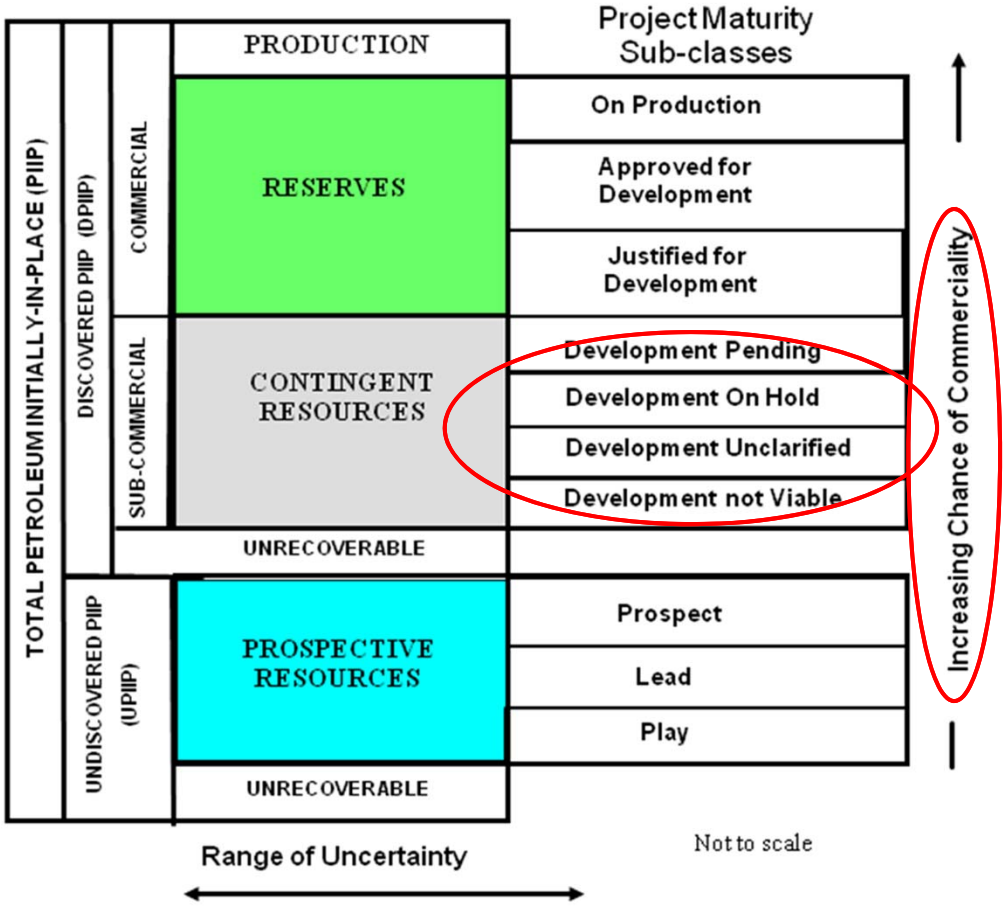
- Risk disclosure underpins NI 51-101
  - Risk correlates to C_{Comm}
  - Recall C_{Comm} varies by resources category
    - Therefore, category disclosure is informative
- Section 5.3(1) states

> *Reserves* or *resources* other than *reserves* must be disclosed using the applicable terminology and category set out in the *COGE Handbook* and must be classified in the most specific category of *reserves* or *resources* other than *reserves* in which the *reserves* or *resources* other than *reserves* can be classified.

  - Section 5.3 of 51-101CP clarifies that most specific category includes PMSC of contingent resources

Commerciality and NI 51-101
Chance of development

- COGE Handbook recognizes four PMSCs, in ascending C_{comm}



Commerciality and NI 51-101
Chance of development

- CSA SN 51-324 defines
  - Development pending as

> Where resolution of the final conditions for development is being actively pursued (high *chance of development*) [emphasis added]. [*COGE Handbook*]

    - Section 2.5.1 of volume 2 of the COGE Handbook states

> The development pending project maturity subclass is described as requiring a "high probability of becoming a commercial development", which is equivalent to the probability of removal of all contingencies. The term "high probability" is generally considered to be about 80 percent, which may be considered to be a minimum for the removal of all contingencies [emphasis added].

    - Numeric $C_{Dev} = \geq 80\%$

Commerciality and NI 51-101
Chance of development

- Development on hold as

> Where there is a reasonable *chance of development*, but there are major non-technical *contingencies* to be resolved that are usually beyond the control of the operator [emphasis added]. [*COGE Handbook*]

- Section 2.5.5(d) of volume 2 of the COGE Handbook states

> [I]t is more likely than not that the contingencies will be resolved [emphasis added].

- Statistically, the numeric C_{Dev} = > 50%

Commerciality and NI 51-101
Chance of development

- Development unclarified as

When the evaluation is incomplete and there is ongoing activity to resolve any risks or uncertainties. [*COGE Handbook*]

  - C_{Dev} is unspecified; may be difficult to assess

- Development not viable as

Where no further data acquisition or evaluation is currently planned and hence there is a low *chance of development* [emphasis added]. [*COGE Handbook*]

  - Staff are of the view that numeric C_{Dev} = ≤ 50%

Commerciality and NI 51-101
Chance of development

- Section 2.4.8 of volume 2 of the COGE Handbook states

> Project maturity describes the stage of an exploration or development project and broadly corresponds to the chance of commerciality of the project. The boundaries between the maturity subclasses represent "decision gates" that reflect the actions (business decisions) required by the resource owner to move the project up the maturity "ladder" towards commercial production [emphasis added].

Commerciality and NI 51-101
Development timing

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- COGE Handbook discusses reserves development timing
  - Section 5.5.4(f) of volume 1 states

> Non-producing reserves should be planned to be developed within a reasonable time frame. For projects requiring minor capital expenditures, two years is a recommended guideline unless the non-producing reserves are awaiting depletion of another producing zone or production levels are constrained by facility or market limitations. For larger capital expenditures, three years is a recommended guideline for assigning proved reserves and five years for assigning probable reserves. Exceptions to these guidelines are possible but should be clearly documented [emphasis added].

  - Exceptions are possible
    - Document in the evaluation

Commerciality and NI 51-101
Development timing

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- Section 5.7 of volume 2 states

Non-producing reserves that are near existing infrastructure and require minor capital should normally be developed within a two-year period. […]

The evaluator should review undeveloped reserves estimates if development has not proceeded as previously planned by the operator. […]

For large projects, where significant capital is required for field development or infrastructure construction (offshore, oil sands, etc.), significant capital expenditures should normally commence within three years for assignment of proved reserves. For the assignment of probable reserves, significant capital spending should normally commence within five years. […]

Commerciality and NI 51-101
Development timing

- Section 5.3.2 of volume 1 states regarding commercial status

> A reasonable time frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a maximum time frame for classification of a project as commercial, a longer time frame could be applied where, for example, development of economic projects are deferred at the option of the producer for, among other things, market-related reasons or to meet contractual or strategic objectives.

  - Post development, things can change
    - Ongoing assessment of commerciality considerations is needed

Commerciality and NI 51-101
Development timing

- COGE Handbook discusses ROTR development timing
  - Section 2.5.5(b) of volume 2 states for contingent resources

> A project maturity subclass describes a stage along the process towards commerciality. It is not a static condition and the project maturity subclass of a contingent resource, especially if it is economic and constitute(s) a major portion of an organization's assets, should be reviewed regularly. The frequency of review will depend on the project, the area, and the project's significance to an organization. […] [T]here is wide variation in the timeframes over which projects develop and, in a mature area with access to facilities and markets, the appropriate time between reviews should perhaps be no more than two years [emphasis added].

- The path to commerciality is influenced by commerciality criteria
- PMSC can change
- Attribution should be reviewed regularly

Commerciality and NI 51-101
Development timing

- PMSC have specific criteria for
  - Activity levels
  - Development timing
- Per section 2.5.5(c) to (f)
  - Development pending
    - Ongoing activities to justify near future commercial viability
    - Reasonable timeframe for critical contingency resolution
    - Developers directly influence significant contingencies
    - High probability of commercial development

Commerciality and NI 51-101
Development timing

- Development on hold
  - Commerciality more likely than not
  - Major non-technical contingencies
  - Developers have little or no direct influence
  - Significant uncertainty in decision outcome and timing
  - Justify a long period in this PMSC in an evaluation

Commerciality and NI 51-101
Development timing

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- Development unclarified
  - Under evaluation or requires significant appraisal
  - Contingencies may not be fully defined
  - Commercial assessment potential may take years
  - Should not be maintained indefinitely without
    - Activity to resolve the issues or
    - Providing a reasonable explanation in the evaluation
  - Reclassify if no active evaluation or plan for within a limited time period
- Development not viable
  - Curtailed efforts for the foreseeable future
  - Possible commercial development potential

Commerciality and NI 51-101
Development timing

- Criteria summary
  - Activity levels/Development timing
    - Development pending
      - Ongoing/Short term
    - Development on hold
      - None specific/Uncertain, could be indefinite if explained
    - Development unclarified
      - Underway or will resume in a limited time period/Not indefinite without activity to resolve the issues or a reason provided
    - Development not viable
      - Curtailed /Uncertain, but not for the foreseeable future

Commerciality and NI 51-101
Key points

- Industry faces challenges that may influence commerciality
- Under NI 51-101, commerciality is foundational to
  - Evaluation of reserves and ROTR
    - Estimation
    - Classification
      - Each category has specific criteria for
        - Commerciality
        - Activity levels, development timing, etc.
  - Disclosure of reserves and ROTR
- Commerciality assessment must be ongoing

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4. **Questions and comments**

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