

Mineral Disclosure Best Practices

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Objectives of the OSC SME Institute

OSC SME INSTITUTE

OSC SME Institute - Objectives

Our goal is to:

- Help SMEs navigate the regulatory waters
- Demystify disclosure requirements so companies can focus on building their business
- Reduce SMEs' cost of compliance so that this money can be better spent on strategic initiatives
- Provide an opportunity for informal dialogue with OSC staff

Disclosure requirements, including those for technical reporting, are a cornerstone of investor confidence

Regulatory Landscape in Canada

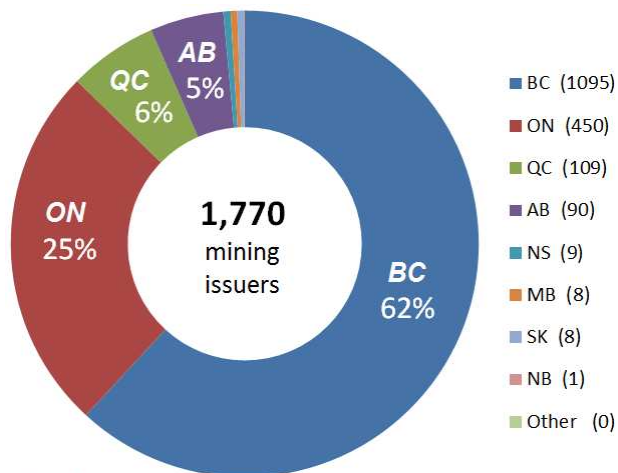
13 provincial/territorial securities commissions

CSA/ACVM (No Power)

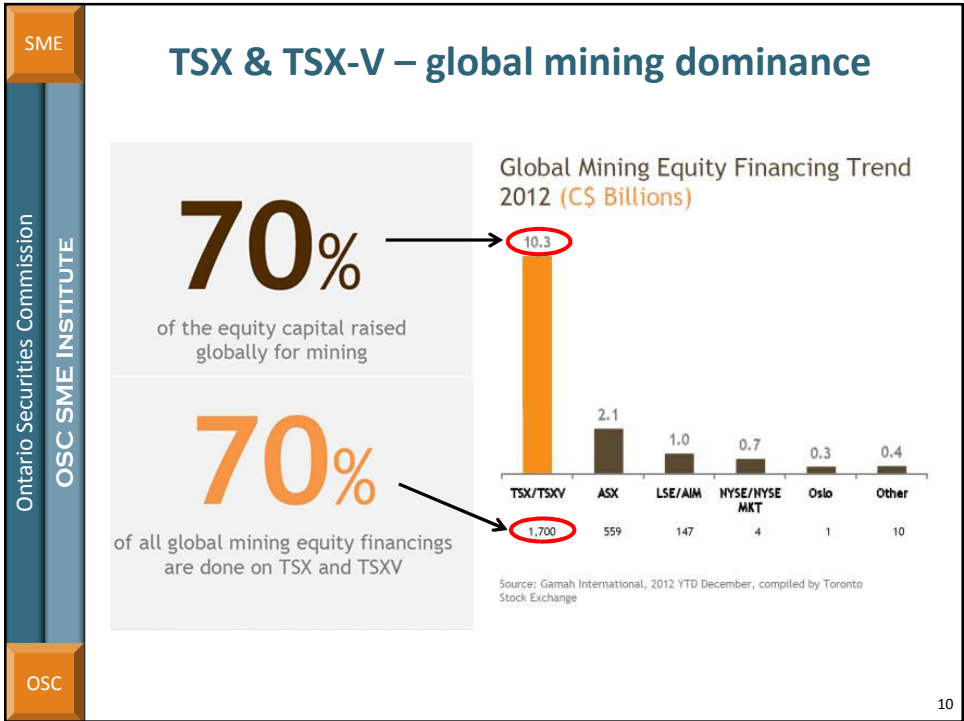
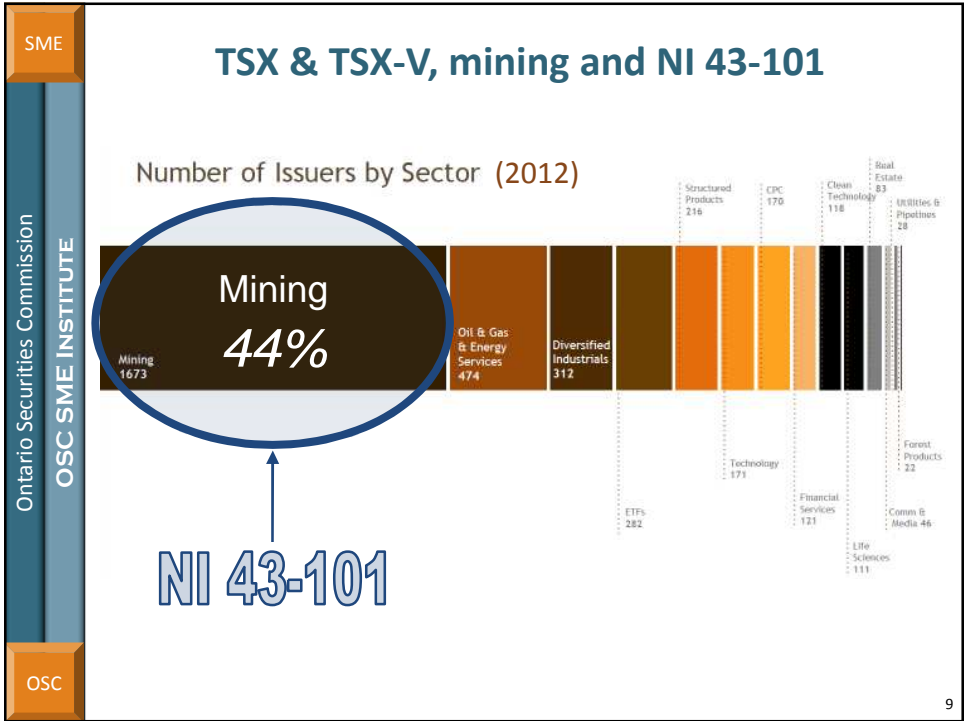


A company deals primarily with its "principal regulator" (usually the jurisdiction in which the company's head office is located)

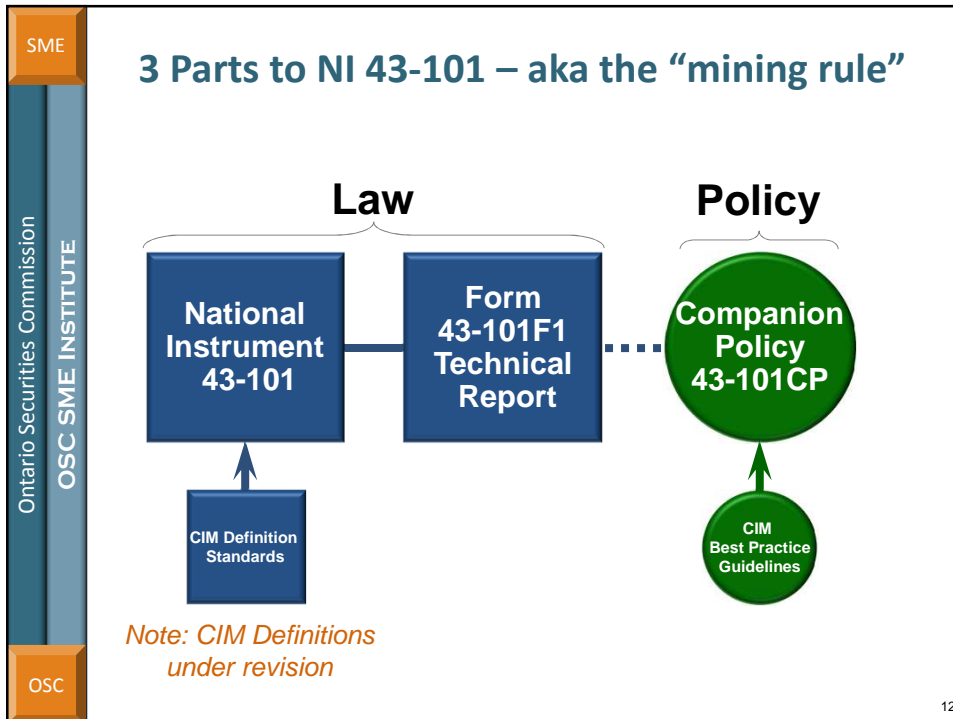
Mining issuers by jurisdictional oversight

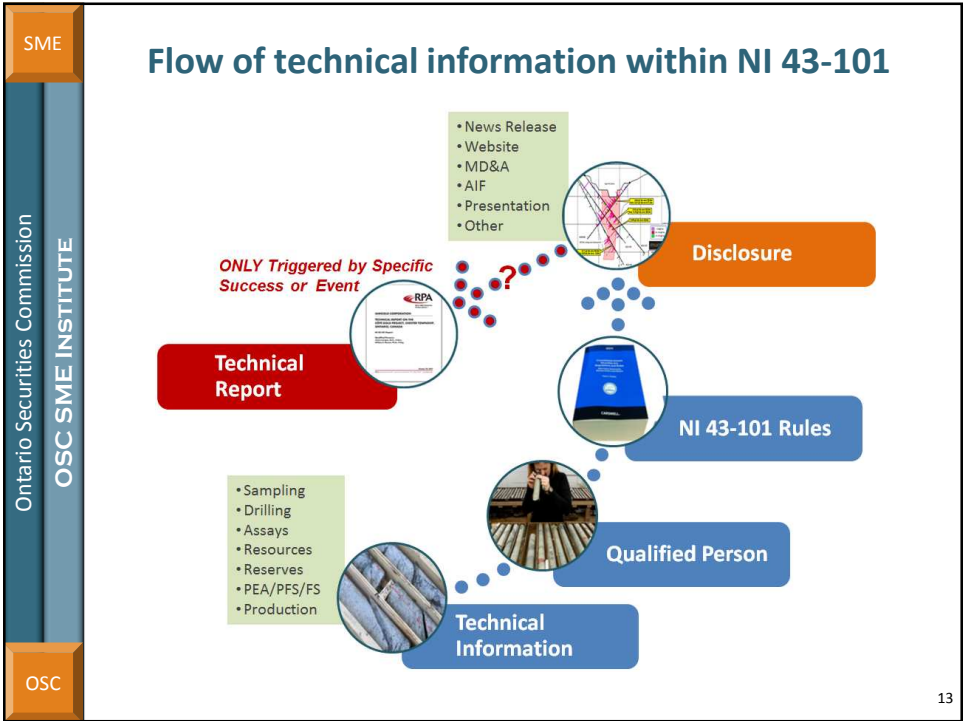


Oct 2013



NI 43-101 Basics





3 E's of a qualified person

Education

Geoscientist or engineer with a university degree in geoscience or engineering related to exploration or mining

QP

Experience

At least five years of experience in exploration, mining, or project assessment and experience relevant to subject matter being reporting on

Ethics

Professional association recognized by law in Canada or a foreign association and membership designation listed in NI 43-101

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Mining technical standards and guidelines

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- CIM Definition Standards for Mineral Resources and Mineral Reserves (2010) *under revision*
- CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2003)
- CIM Best Practice Guidelines for Mineral Processing (2011)
- CIM Exploration Best Practice Guidelines (2000)
- CIMVAL Standards and Guidelines for Valuation of Mineral (2003)
- GSC Paper 88-21: A Standardized Coal Resource/Reserve Reporting System for Canada (1988)

SME

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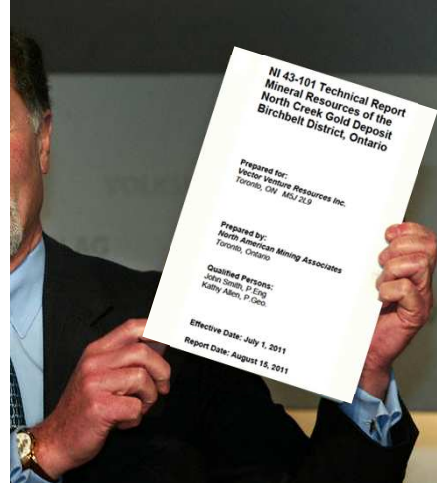
OSC

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Technical report

Supports a mining company's most important asset:

its material mineral properties and the resources and reserves they contain



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Bad Actors

John Paterson (Southwestern Resources) - Jan 2013

President, CEO and QP for Southwestern

- From May 2003 to Feb 2007 he issued 25 consecutive news releases which contained 433 inflated gold assays
- Misrepresentation of assay data resulted in losses of \$260 million
- Sentenced to six years in prison for assay fraud

BC Provincial Court

"The purpose of NI 43-101 is to ensure that information about mineral properties is reported in a reliable and consistent manner to investors and potential investors. The Qualified Person, who is governed by the professional and ethical standards of his or her calling, is charged with reviewing and making accurate and timely disclosure of all drilling assay results to actual and potential shareholders and to the capital markets."

Bernard Boily (Bear Lake Gold) - March 2013

VP Exploration and QP for Bear Lake Gold

- Between Dec 2007 and Jul 2009 he altered 140 gold assay results received from the lab
- Prepared and "signed-off" as the QP for several news releases containing incorrect or inflated assay results
- Changed drill logs and rearranged drill core
- Modified the assay database which was delivered to independent QPs preparing an initial mineral resource estimate

Settlement agreement sanctions:

- Lifetime ban from acting as a QP
- Lifetime ban from acting as a director and officer
- Administrative penalty of \$750,000 plus \$50,000

BCSC 2012 Mining Report

SME

BCSC 2012 Mining Report

Overall compliance

65% Required Filings

(News releases, MD&A, AIF, technical reports)

50% Voluntary Disclosure

(Website, presentations, linked analyst reports)

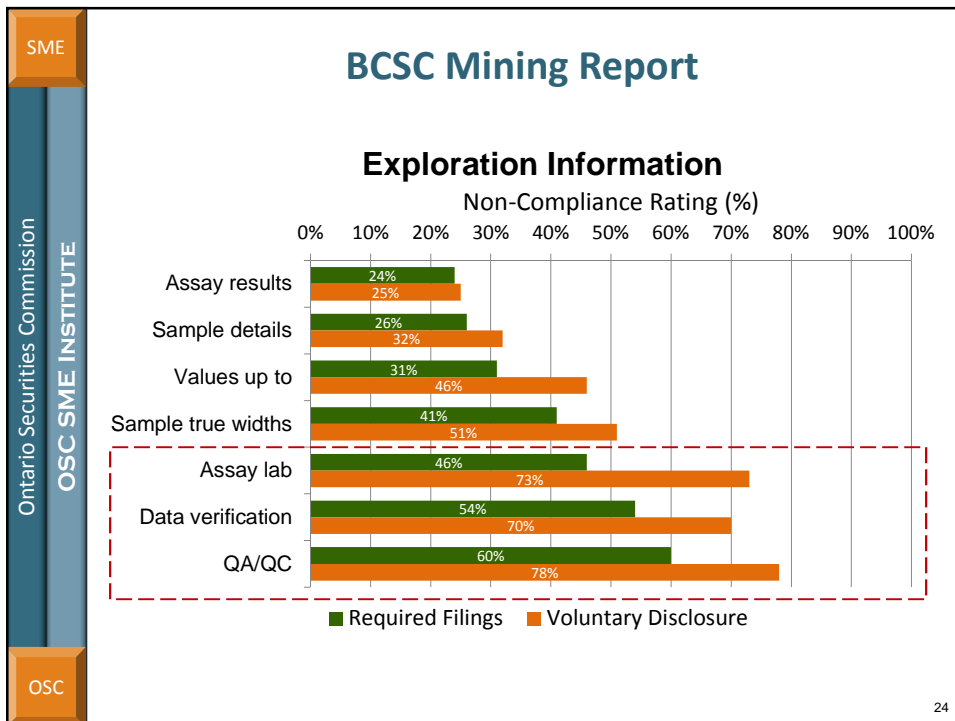
- BC-based mining issuers
- Approx. 120 reviews (2009 to 2012)



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Exploration Information



Written disclosure of exploration information

S. 3.3(1)

When disclosing exploration information include summary of:

- Material results
- Interpretation of the results
- *QA/QC procedures used*

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Written disclosure of exploration information

S. 3.3(2)

When disclosing sample or assay results include:

- Location and type of samples
- Location, azimuth, and dip of the drill holes
- Sample depth, width (true width if known) and values
- Higher grade intervals within lower grade intersection
- Factors that could affect the reliability of results
- *Summary of analytical procedures used by the laboratory*
- *Name and location of the laboratory and any relationship to the company*

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Data verification of written disclosure

S. 3.2

When disclosing technical information include:

- *Statement whether a QP has verified the data*
- *Description of how the data was verified*
- *Explanation of any limitations or failure to verify the data*

“Data verification” is the process of confirming that data:

- *has been generated with proper procedures*
- *has been accurately transcribed from the original source*
- *is suitable to be used*

Example – naming the QP and data verification

“John Smith, VP Exploration for Joy Resources Ltd., is a qualified person as defined by NI 43-101 and reviewed and approved the scientific and technical information in this news release. Mr. Smith is a P.Geol. with the Association of Professional Geoscientists of Ontario.

Mr. Smith verified the data disclosed in this news release, including the sampling, analytical and testing data underlying the information. Verification included a review and validation of the applicable assay databases and reviews of assay certificates.”

Accommodation - written disclosure already filed

S. 3.5

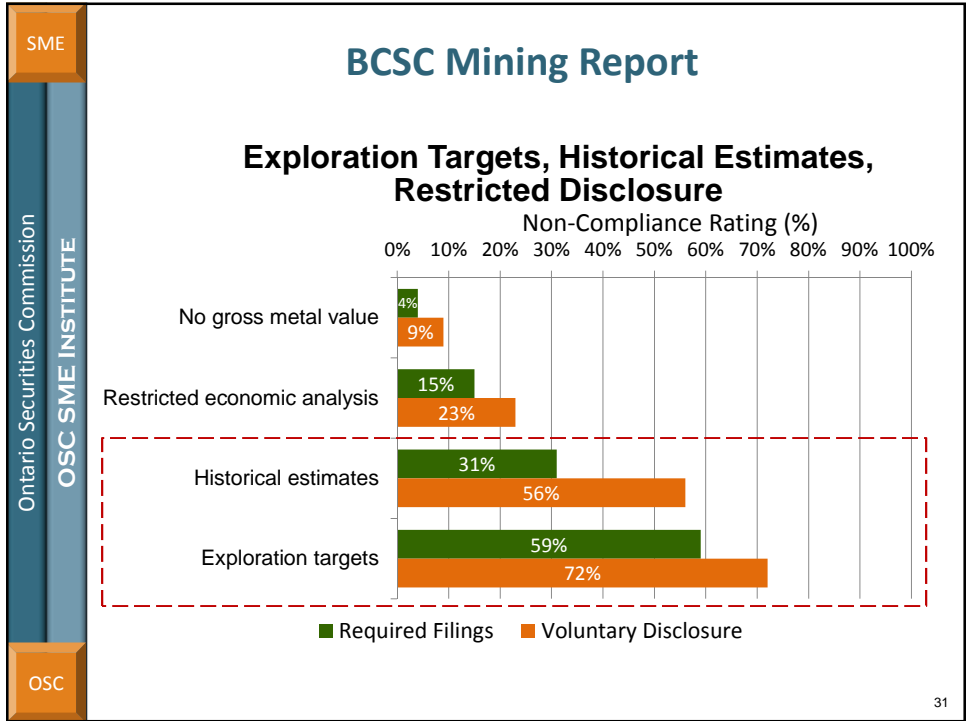
Applies to

- Data verification
- Exploration information and QA/QC
- Summary of analytical procedures and name of laboratory
- Effective date of resource and reserve estimate
- Key assumptions, parameters, methods for resource and reserve estimate
- Risks that may affect resource and reserve estimate

Requirement

- Reference the title and date of the previously filed document which includes the information

Exploration Targets
Historical Estimates
Restricted Disclosure



Exploration target

S. 2.3(2)

May disclose the potential quantity and grade, *expressed as ranges*, of a target for further exploration only if the disclosure *states with equal prominence*:

- *Potential quantity and grade is conceptual in nature*
- *Insufficient exploration to define a mineral resource*
- *Uncertain if a mineral resource estimate will be delineated*
- *Basis on which exploration target has been determined*

Exploration target disclosure checklist:

- Range of tonnes & grade
- Cautionary statement – next to the disclosed target ranges
- Reasonable basis for target ranges

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Exploration target – don't misuse the privilege!

June 29, 2102

"Barkerville Announces a NI 43-101 Compliant Indicated Resource of 10,626,100 oz's Gold on Cow Mtn with a NI 43-101 Compliant Geological Potential of 65-90 Million oz's Gold in an Area Encompassing Approximately 10% of its Cariboo Gold Project"

Cease traded from August 14, 2012 to July 15, 2013

CTO remained in place until the Company filed a NI 43-101 technical report addressing all technical comments from the BCSC

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Example - Exploration target

"Based on previous work, the Company has estimated an exploration target of 550,000 to 650,000 oz Au contained within 1.2 to 1.6 Mt grading 0.4 to 0.5 oz/t Au. The potential tonnages and grades are conceptual in nature and are based on previous drill results that defined the approximate length, thickness, depth and grade of the target area. There has been insufficient exploration to define a current resource and the Company cautions that there is a risk further exploration will not result in the delineation of a current resource."

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Historical estimate

S. 2.4

Historical estimate may be disclosed if it includes:

- Source and date, including any existing technical report
- Relevance and reliability of the estimate
- Key assumptions, parameters, and methods – if known
- Differences between estimate and CIM definitions
- Work needed to upgrade or verify the estimate as current
- *State with equal prominence the following:*
 - *QP has not done sufficient work to classify the estimate as current*
 - *Company is not treating the historical estimate as current*

Simply saying the estimate is “not NI 43-101 compliant” is not acceptable

Example – Disclosure of historical estimate not triggering a technical report

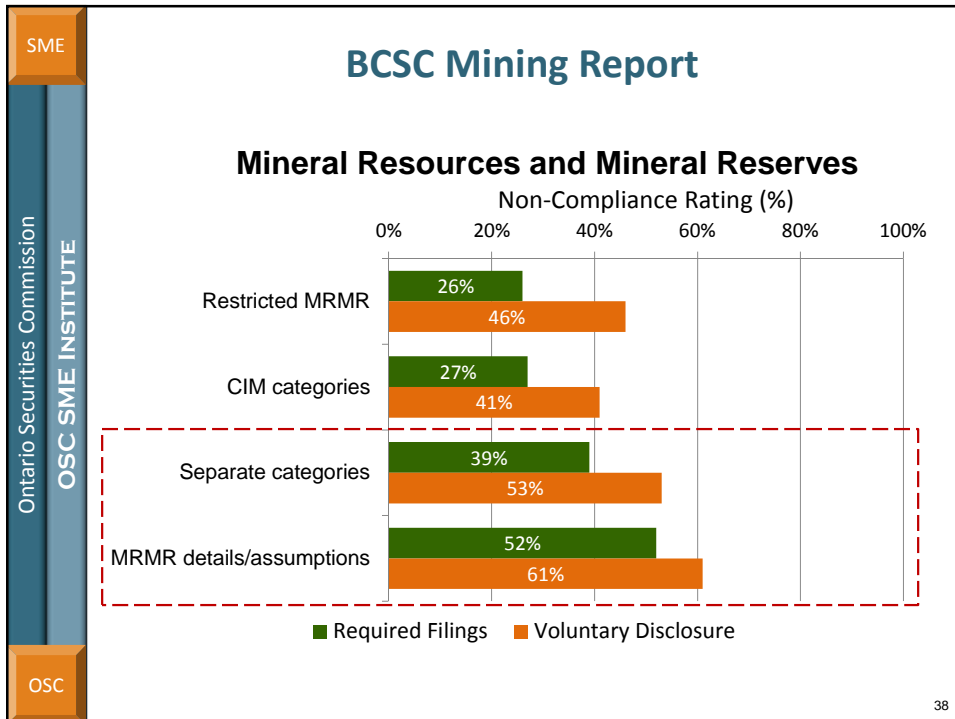
“The historical resource estimate of 10 Mt at 6.8 g/t Au is based on data and reports prepared by ABC Mining in 1983.

The Company has not completed the work necessary to have the historical estimate verified by a QP.

The Company is not treating the estimate as a current NI 43-101 defined resource and the historical estimate should not be relied upon.

The property will require considerable additional exploration which the Company intends to carry out over the next year.”

Mineral Resources & Mineral Reserves



“Must nots” regarding disclosure of estimates

S. 2.2

Must not disclose any information about a mineral resource or mineral reserve **unless** the disclosure

- Uses only the five CIM categories (ex. measured resource, proven reserve, etc.)
- *Reports each category separately*
- *Does not add inferred resources to other categories*
- If the quantity of contained metal is disclosed, state the tonnes and grade for each category

Written disclosure of resources and reserves

S. 3.4

When disclosing mineral resources or reserves include:

- *Effective date of each estimate*
- *Quantity and grade of each category*
- *Key assumptions, parameters, and methods used*
- *Any known risks that could materially affect potential development*
- Statement that “mineral resources that are not mineral reserves and do not have demonstrated economic viability” if results of an economic analysis of resources is disclosed (such as in a PEA)

Key assumptions, parameters & methods

Key assumptions

- Cut-off grade and basis for determination
- Mining and processing method
- Metallurgical recovery
- Metal prices

Parameters

- Appropriate geological model for the deposit type
- Grade cutting factors and specific gravity
- Search distances and minimum samples per block
- Interpolation distances and directions

Methods

- Block model
- Polygonal, cross-sectional, etc.

How were "reasonable prospects of economic extraction" determined?

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Example - Resource estimate

MINERAL RESOURCES - GOLDFIELD PROJECT, JUNE 1, 2012

Category/ Zone	Tonnes	Au (g/t)	Au (ounces)
Measured	38,000	6.84	8,400
Indicated	209,000	5.94	39,800
Measured+ Indicated	247,000	6.08	48,300
Inferred	633,000	7.79	158,800

Notes:

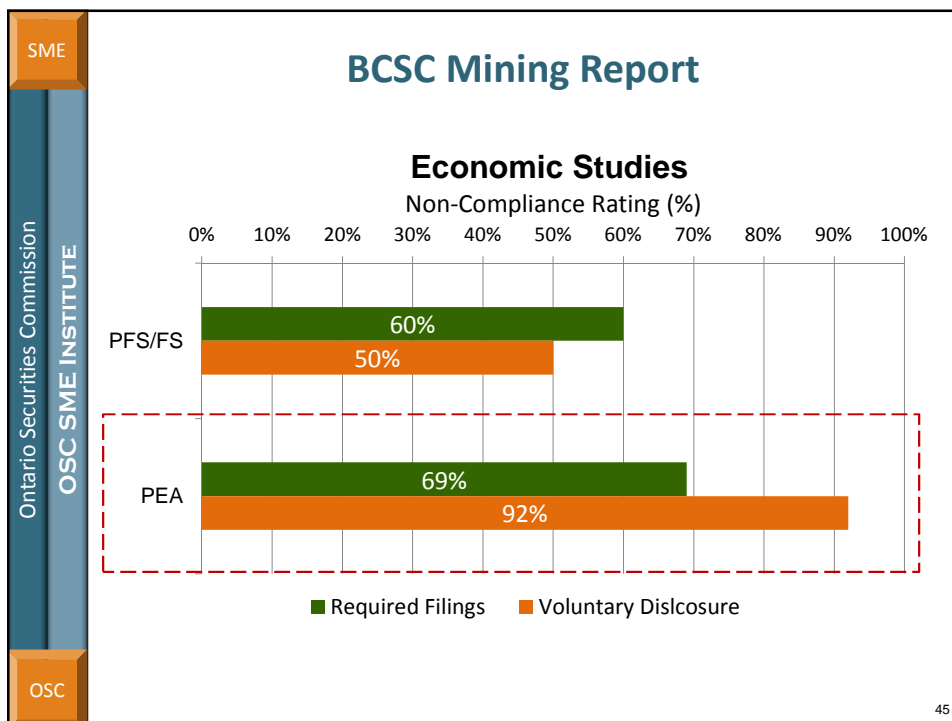
1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 3.4 g/t Au.
3. Mineral Resources are estimated using a gold price of US\$1,300/oz, and a US\$/C\$ exchange rate of 1.00 : 1.00.
4. A minimum mining width of two metres was used.
5. The numbers may not add due to rounding.
6. There are no known risks that could materially affect potential development.

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Disclosure of estimates - a helpful hint

- Prepare disclosure required for properly reporting resource and reserve estimates
- Make a summary table of estimates that can accompany your corporate presentations, your annual report, even your MD&A
- Make sure to include information about assumptions and parameters, usually as footnotes
- Post the table on your website and link to it through all your project pages

Economic Studies



SME

Preliminary economic assessment (PEA)

S. 2.3(3)

May disclose the results of a PEA that includes inferred resources if the disclosure *states with equal prominence*:

- *PEA is preliminary in nature*
- *Includes inferred resources that are too speculative geologically to have the economic considerations applied to them*
- *No certainty that the PEA will be realized*

Also:

- *States the basis and assumptions for the PEA*
- Describes the impact of the PEA on any pre-feasibility or feasibility study

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Types of economic studies

Criteria	Technical & Economic Studies		
	Preliminary Economic Assessment (PEA)	Prefeasibility Study (PFS)	Feasibility Study (FS)
Study			
Objective	Early stage conceptual assessment of the <u>potential economic viability</u> of mineral resources	Realistic economic and engineering studies sufficient to <u>demonstrate economic viability</u> & establish mineral reserves	Detailed study of how the mine will be built, used as the basis for a <u>production decision</u>
Accuracy	+/- 50 %	+/- 25 %	+/- 10 %
Mineral Estimate Inputs	Inferred/Indicated/Measured Resources	Indicated & Measured Resources	
Mineral Estimate Outputs	Inferred/Indicated/Measured Resources	Proven and Probable Reserves	

Caution: Generalized for presentation purposes

CSA Staff Notice 43-307 on the PEA
(August 16, 2012)


 Canadian Securities Administrators / Autorités canadiennes en valeurs mobilières

CSA Staff Notice 43-307
Mining Technical Reports - Preliminary Economic Assessments

Provides PEA guidance in seven areas:

- Misuse of a PEA as a proxy for a PFS
- PEAs done in conjunction with a PFS or a FS
- PEA disclosure and technical report triggers
- Potentially misleading PEA results
- PEA disclosure that includes by-products
- Relevant experience of QPs
- Consequences of disclosure deficiencies or errors

News Release Exercise Take a Chance Mining Ltd.

News release guidelines

- State specific facts
 - Provide specific and accurate facts and avoid subjective terms and promotional language
- Provide adequate context
 - State all material information about the facts being disclosed to make the information not misleading
- Make balanced disclosure
 - Report positive and negative results
- Timing of disclosure
 - As soon as practical or possible
- QP involvement
 - Required to approve all technical disclosure

Take a Chance Mining Ltd.

- Take 5-10 minutes to review the news release and identify any specific disclosure concerns
- Hint – there are > 20 possible concerns



December 9, 2013
NEWS RELEASE:

Take a Chance Mining Announces Incredible Results from the Lucky Strike Gold Project

Take a Chance Mining (TSX-V: BBB, OTCBB: BAD) is pleased to report results from its first drill program on the Lucky Strike Gold Project (the Property). On December 1, 2012, Take a Chance Mining (the Company) signed an option agreement to acquire an interest in the Property located in Nevada which covers a large land package in an important gold district. The Property is host to several gold deposits which have reported previous drill intersections up to 3.0 metres grading 65.5 g/t gold and a resource of 550,125 oz gold. Based on the current gold price, the gross metal value of this gold resource is at least US\$880 million. The Company believes the Property has the potential for more than 2 million oz of gold.

The four hole drill program, completed in June 2013, returned very encouraging results. The Company's president, Joe Hopeful, states "these intersections provide proof that our Company has a world-class project with the potential to be very profitable. Highlights from the recent drilling include the following results:

Hole	Interval (m)	Gold (g/t)
DD01	0.5	48.8
DD04	8.0	10.3

Samples from the drilling program were sent to the local assay laboratory for analysis. The core was sampled in 0.5 to 1.0 metre lengths with half being sent to the lab and half remaining on site. The quality control procedure has been to industry standards.

Joe Hopeful states "we are extremely excited about the potential of the Lucky Strike Project. We knew based on the visual estimates of 20-30 g/t gold that we had to move very aggressively to drill test the main targets on the Property." The Company is planning a second drilling program which will begin shortly to follow-up on the successes of the first drilling phase.

This news release was prepared and reviewed by Joe Hopeful, President and CEO of the Company. For further information contact Joe Hopeful at jhopeful@takeachancemining.net.

On behalf of the Board of Directors,

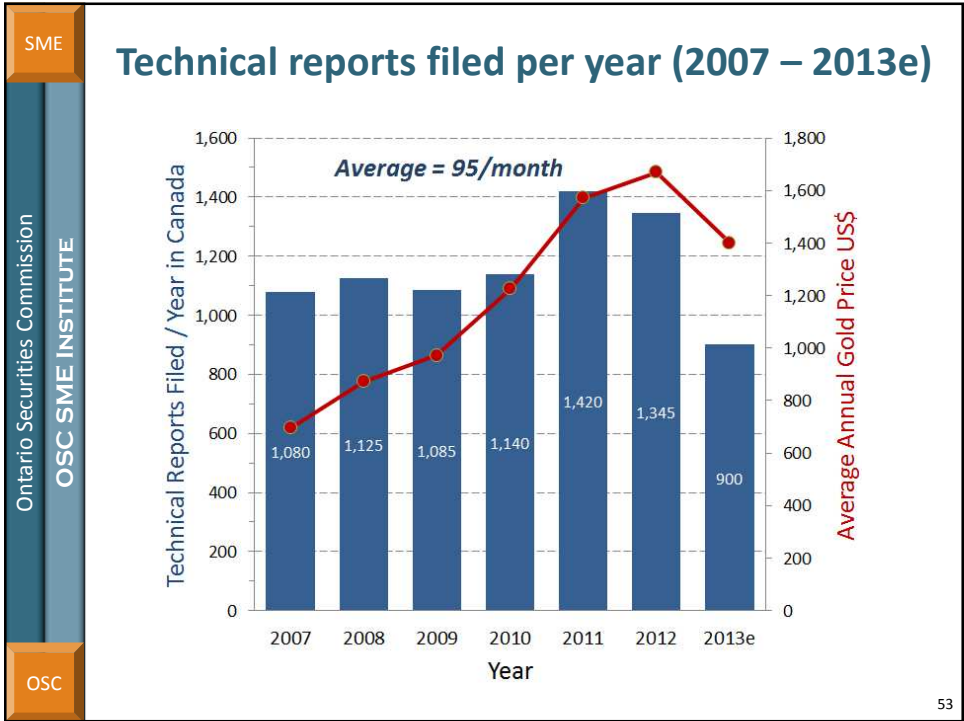
"Joe Hopeful"

Joe Hopeful
President and CEO

The TSX Venture Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this news release.

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Technical Report Basics



- SME**
- Ontario Securities Commission
OSC SME INSTITUTE
- OSC**
- ### Five Ws (and one H) of technical reports
- Who** Prepared by QPs, often independent of the company and property
 - What** Current summary of material technical information on material property
 - When** Triggered by milestone events and filed within a specific timeframe
 - Where** Filed publically on SEDAR
 - Why** Supports company's technical disclosure and assists investors
 - How** Must follow prescribed Form 43-101F1 and requirements of NI 43-101
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“Milestones” trigger technical reports

Property Milestones	Company Milestones
<p>1st time disclosure of:</p> <ul style="list-style-type: none"> • Mineral resource • Mineral reserve • Preliminary economic assessment (PEA) <p>Material change of the above</p> <p style="text-align: center;"><i>“Success driven triggers”</i></p>	<p>1st time reporting in Canada</p> <p>Filing of:</p> <ul style="list-style-type: none"> • Preliminary (long form) prospectus • Preliminary short form prospectus • Information or proxy circular • Offering memorandum • Rights offering circular • Annual information form • Valuation • TSX Venture offering document • Take-over bid circular <p style="text-align: center;"><i>“Event driven triggers”</i></p>

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Technical report

S. 6.1
“A technical report must be based on all available data relevant to the disclosure that it supports”

Sounds straightforward, but it can be a significant issue when preparing a technical report

- No limiting the scope of the technical report
- No splitting of a property into separate projects with their own technical report
- No separate mineral resource technical report and PEA technical report on the same property

Newly filed technical report replaces the old one, it doesn't supplement it

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Independent technical reports



S. 5.3

Cases where ALL QPs must be independent

- 1st time reporting issuer in Canada
- Preliminary long form prospectus
- 1st time disclosure of a mineral resource, mineral reserve, or preliminary economic assessment
- >100% change to an existing mineral resource or mineral reserve

Exemption from independence for “producing issuers”

- Gross revenue > \$30 million in recent fiscal year; and
- Gross revenue > \$90 million in last three fiscal years

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How big should a technical report be?

General rule of thumb:

- Technical reports provide material information at a “summary-level”
- Focus on what's important for the stage of development of the project
- Try and keep the “body” (Items 2-26) between 50 - 150 pages
- Limit the pages of appendices
- Try to keep the file size under 10 Mb, if possible

4,740 pages (report is only 54 pages)

Description	Pages	Filing Date
Technical Report (NI 43 - 101)	4740	2010-11-12

267 Mb (report is only 41 pages)

May 6 2011	Technical report (NI 43-101) - English	PDF	267339 K
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Technical Report Review Study by OSC Staff

OSC Staff Notice 43-705

June 27, 2013

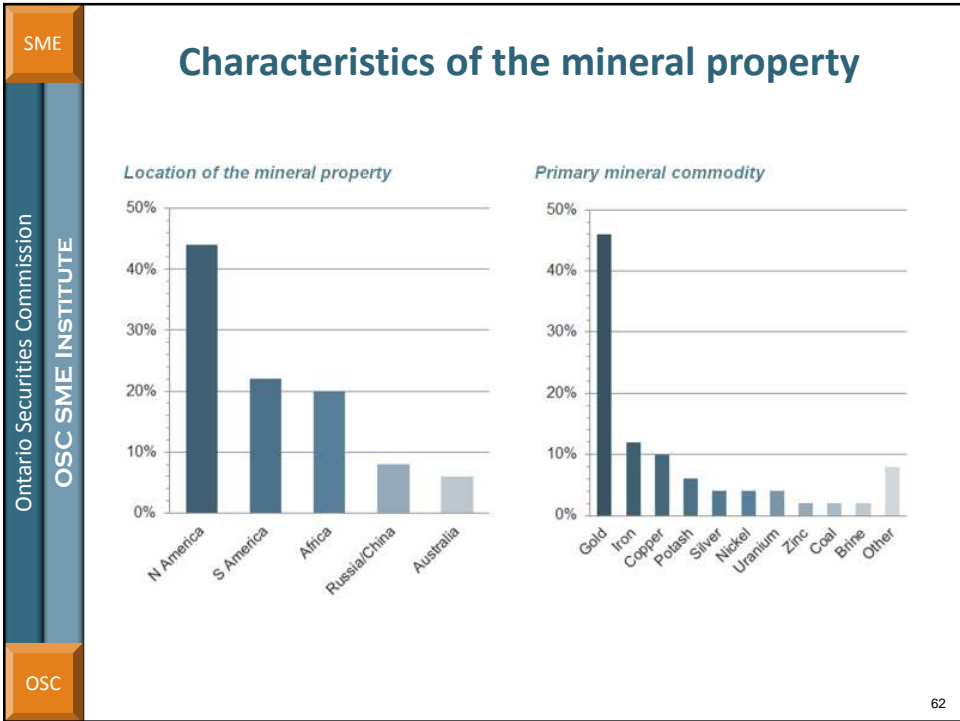
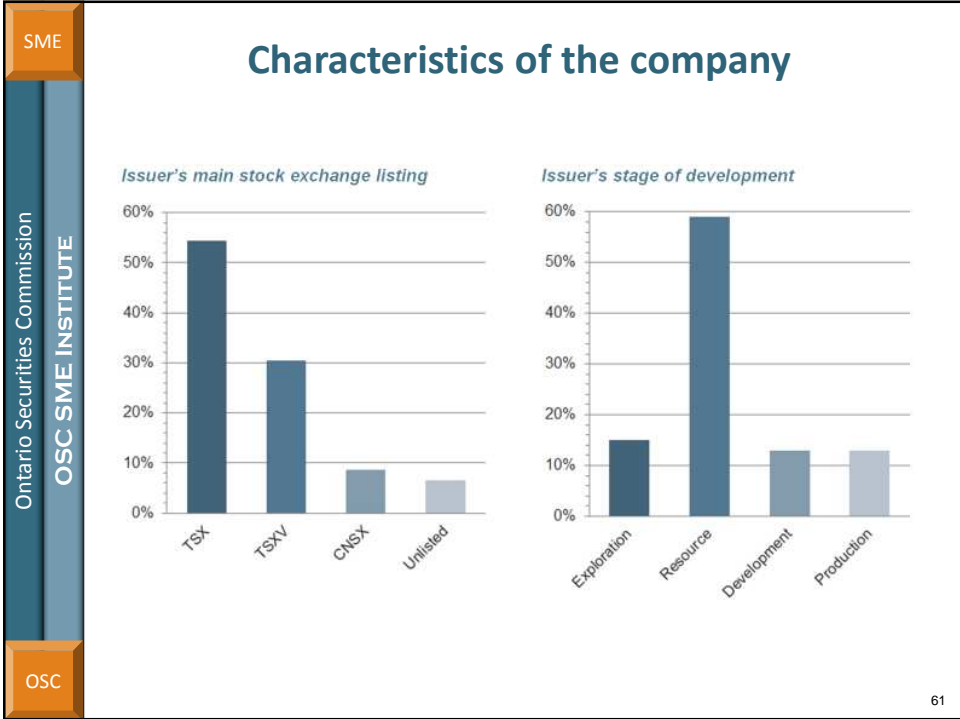
SME

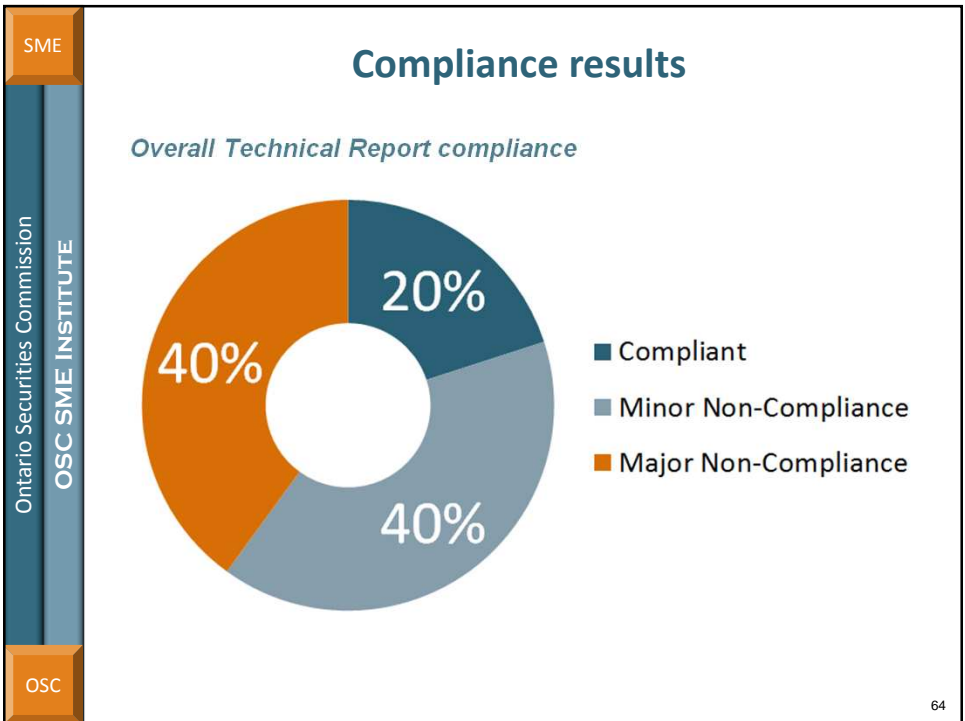
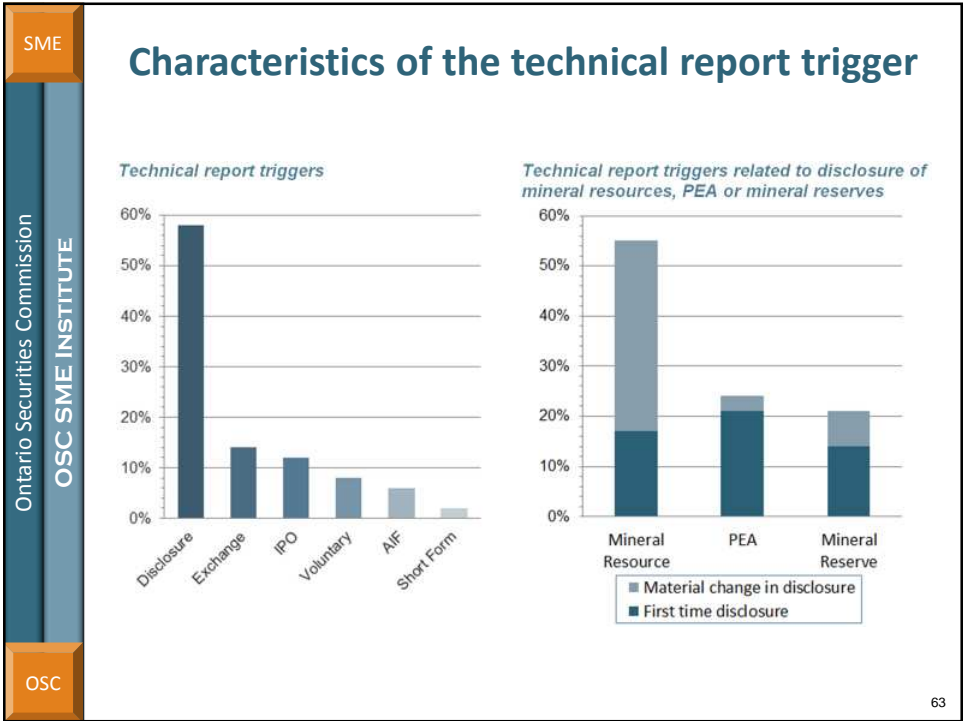
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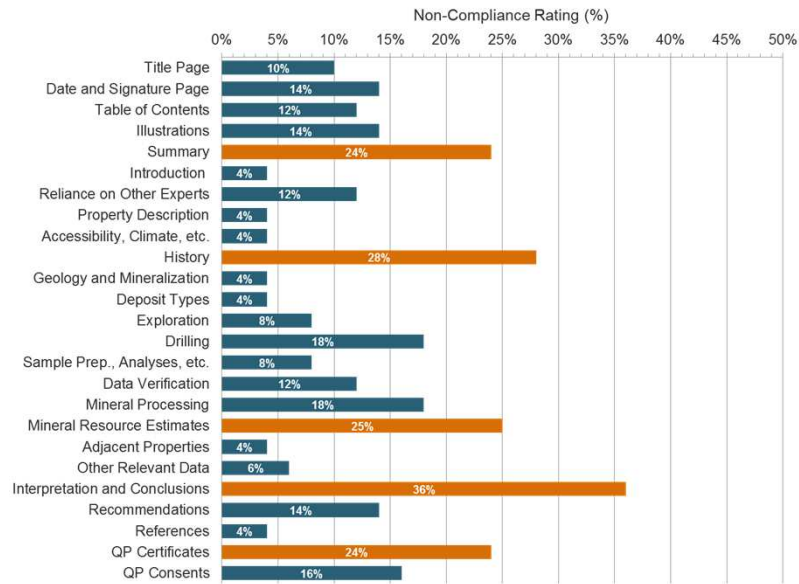
OSC Technical Report Review

- What
 - Review of technical reports filed on SEDAR by Ontario-based companies
- When
 - 1st year of revised NI 43-101 (June 30, 2011 to June 29, 2012)
- Why
 - Assess compliance with the revised NI 43-101 and technical report form
- How
 - Review about 10% of the filed technical reports (50 out of 460 technical reports)



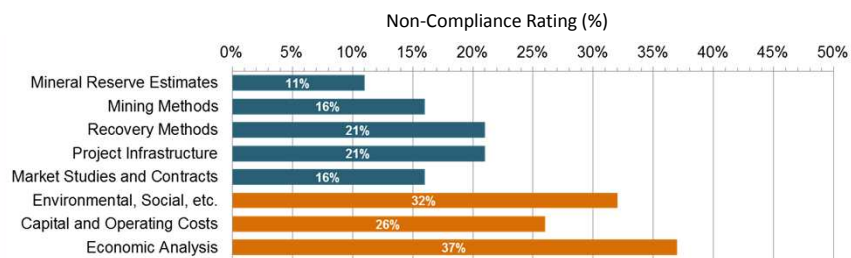


Non-compliance rating – technical reports



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Non-compliance rating – advanced property



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Deficient area – Summary

The summary is a key part of any technical report

Briefly summarize important information and “key findings” about

- Property and ownership
- Geology, deposit type and mineralization
- Exploration and drilling status
- Data verification and site visit
- Resource and reserve estimates
- Mining studies
- Economic analysis
- QP’s conclusions and recommendations

Look at section 5.4 of Form 51-102F2 (AIF) as a possible template

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Deficient area – History

Remember the cautionary language every time you disclose a historical estimate

2.4 (g) state with equal prominence that

- (i) a qualified person has not done sufficient work to classify the historical estimate as a current resource estimate
- (ii) the issuer is not treating the historical estimate as a current resource estimate

Simply saying the estimate is “not NI 43-101 compliant” is not acceptable

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Deficient area – Mineral resource estimates

Key assumptions, parameters, and methods

(a) Provide the key assumptions, parameters, and methods to support the basis for estimating the mineral resource

Unanswered questions:

- How were “reasonable prospects” established?
- What cut-off grade was used to estimate the mineral resource?
- What was the metal price, mining scenario, processing recovery, etc.?

Assumptions regarding “reasonable prospects of economic extraction” must be disclosed under section 3.4 (c) of NI 43-101 and is material information that must be included in a technical report

Deficient area – Environmental studies, permitting, and social impact

“Social license” and mine closure

(d) Social requirements for the project and status of negotiations with local communities

(e) Mine closure requirements and reclamation costs

Unanswered questions:

- What about relocation of the village?
- How is the company dealing with surface rights issues?
- Is there an exploration agreement with the local First Nations?

Social license and local “approval” is critical for moving projects forward

Deficient area – Capital and operating costs

Components of cost estimates and their basis explained

Provide a summary table of cost estimates with major components and explain and justify the basis for the cost estimates

Unanswered questions:

- What are the main components in the capital cost estimate?
- How was the operating cost estimate determined?
- What about the cost of the railway line?

Provide more context to the estimated costs – not just a number

Deficient area – Economic analysis

Taxes and sensitivity analysis

(d) summary of the taxes, royalties, and government levies
(e) sensitivity analysis using commodity price, grade, capital and operating costs, and the impact of the results

Unanswered questions:

- What are the applicable taxes and their impact on the economics?
- What are the base case assumptions?
- What about the impact of decreasing metal prices?

Potentially misleading disclosure may include the following:

- *Reporting only “before-tax” economic outcomes*
- *Reporting only “positive” price sensitivity analysis*

Deficient area – Interpretation and conclusions

Risks, uncertainties and potential impacts

Discuss any significant risks and uncertainties, and their potential impacts, on the project's potential economic viability or continued viability

Unanswered questions:

- What about the ability to obtain water rights?
- What about the proposed novel processing technology?
- What about the impact of the civil war in the region?

Consider a table showing the risks, mitigating factors and potential opportunities

Deficient area – QP certificate

Follow the requirements set out in s. 8.1 of NI 43-101

9 specific items to address (8.1(2)(a) to (i))

- Sign and date the certificate
- Discuss your particular “relevant” experience
- Each section of the technical report needs to have a QP taking responsibility

Include all the required statements - Certificates are one of the first things checked by the regulator

Technical report - practical tips

- QP selection is important
- Know the intended purpose of the technical report
- Use a checklist based on the requirements
- Setup a basic template for the technical report
- Write a concise summary
- Have the draft technical report peer reviewed
- See examples on SEDAR (**not necessarily compliant!**)

Reviews by Commission Staff

Technical reviews by the regulator

Continuous disclosure (CD) reviews

Typical documents examined

- Website (all of it)
- News releases (past year)
- MD&A (past year)
- AIF (if filed)
- Technical reports (most recent ones)
- Social media sites (linked to the company)
- Bullboards and chat rooms (investor reaction)

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Technical reviews by the regulator

Prospectus reviews

Typical documents examined

- Prospectus
 - Technical information
 - Use of proceeds
- Documents incorporated by reference into the prospectus
 - AIF, news releases, MD&A, etc.
- Technical reports (most recent ones)
- Website (all of it)

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So what if I don't comply?

NI 43-101 is enforceable under the Securities Act

Some of the possible outcomes:

- News release clarifying and/or retracting the disclosure
- Company placed on Refilings and Errors list
- Company placed on Default list (can't raise new money)
- Cease Trade Order (trading stops)
- Enforcement order under the Act
- Class action lawsuit (civil liability provisions of the Act)
- Professional liability and disciplinary action (QPs)
- Securities Act charges (5 years/ \$5 million fine)
- Criminal Code charges (up to 14 years)

Key action items for mining companies

- Understand your disclosure obligations
- Be aware of CIM standards and best practices
- Avoid the common mistakes
- Review and discuss technical disclosure with your QP

Don't let this happen to you!

- Missed deadlines
- Public retraction and clarification
- Withdrawn financings

Thank You!

Craig Waldie
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