

This is the form to be used by a Natural Resource Issuer required by section 109 of the Securities Rules to file a report on its Oil and Gas Properties.

BC FORM 43-901F (Previously Form 55)

Securities Act

Technical Report On Oil And Gas Properties

General Instructions

1. Reports submitted must be engineering documents. They must be factual, and any recommendations must be warranted in light of the information and data presented in the report. If the report contains recommendations, the author must state that, in his judgment, the venture is of sufficient merit to make the work recommended a worthwhile undertaking.
2. If any information and data in an engineering report are not based on the author's own observations and investigations, their source shall be clearly stated, reference shall be made to reports and records from which the information and data was obtained, and the author shall state the degree of reliance he has placed on such reports and records. When information is derived from unpublished or private reports or records, a letter of consent from, and a certificate of qualification of, the author of such reports or records shall be submitted.
3. Where a report is not based on a personal examination of a property, the author shall be availed of sufficient timely and current sub-surface data with which to make an intelligent appraisal.
4. When information or data in a report is not based on his own observations, the author must provide a precise reference to the source of information used to reach his conclusions and recommendations.
5. The author should satisfy himself that he has disclosed all relevant material of a technical nature which to the best of his knowledge might have a bearing on the viability of the project or the recommendations in his report.
6. When an examination has been made more than a year prior to the date of the report, some assurance must be provided by the author that changes which have occurred during this time will not affect the conclusions or recommendations contained in the report.

Item 1 - Qualifications and general requirements for authors.

1.1 Technical reports on oil and gas properties in Canada submitted by a natural resource issuer as material accompanying a prospectus shall be prepared by a professional engineer or professional geoscientist who is a member in good standing of an appropriate Association of Professional Engineers and Geoscientists, or by another qualified person acceptable to the Executive Director.

1.2 Where the report is submitted as material accompanying a prospectus that is filed with the Canadian Venture Exchange, the author of the report and the report itself must be acceptable to the Exchange.

1.3 Engineers, geoscientists and officers of the issuer are reminded that where a property is located within British Columbia, the (B.C.) *Engineers and Geoscientists Act* requires that the practice of professional engineering and professional geoscience be performed by members or

licensees of the Association of Professional Engineers and Geoscientists of the Province of British Columbia. In the case of an out-of-province or out-of-country property, the author should be a member of an acceptable professional association.

1.4 Where an oil and gas property is located in the United States of America, membership in the Society of Petroleum Engineers of the American Institute of Mining (S.P.E. of the A.I.M.E.) and/or membership in the American Institute of Professional Geologists is desirable for an author who is a U.S. resident, as is registration in the appropriate engineering association of the state in which the property is located. In some states, registration as a geologist and/or engineer is mandatory.

Item 2 - Conflict of Interest

2.1 Reports shall be prepared only by a registered professional engineer or a registered professional geologist who is independent of the issuer or any associate or affiliate of the issuer.

2.2 Reports shall not be written by a director, officer or employee of the issuer or any associate or affiliate of the issuer or by any person associated with such director, officer or employee.

2.3 Notwithstanding 2.2, in-house reports may be accepted at the discretion of the Executive Director, but only from large well established issuers.

2.4 Where principals in the independent consulting firm which prepared the report have or will acquire direct or indirect interests in properties or securities of the issuer or any associate or affiliate of the issuer, such interests must be clearly disclosed in the report.

2.5 The author should be independent of the vendor of property to the issuer. A qualified person, furthermore, should have no current direct, indirect or contingent interest in a property on which he is reporting.

2.6 The author should disclose any past interest, direct or indirect in the subject property or any past or present interest in any other property within a radius of ten kilometers of the subject property.

Item 3 - Form and content of Technical Reports

The information included in a technical report shall provide full disclosure in order to assist an investor to evaluate the economic prospects of the subject property. A scholarly treatise on some technical aspect of a property having little impact on its economic prospects does not serve the needs of the investor.

Content of Oil and Gas Reports

A engineering and geological report suitable as accompanying material for a prospectus or a statement of material fact shall include:

3.1 Table of Contents

3.2 Introduction

3.2.1 Author's terms of reference. State whether the report was prepared specifically for the purpose of submission to Securities Administrators or whether it will serve other purpose as well.

3.2.2 Names of principal properties. Include all major properties (including all properties to which the proceeds of issue are being applied) and identify them by the commonly referred to field or

area names and disclose the jurisdiction (province, state, etc.). Briefly describe and discuss the geology of the properties. Discussion of geographic factors such as climate and accessibility need be included only in special situations such as frontier resources. A distinction should be made in the types of property being reported on, eg. - producing (with or without enhanced recovery), partly developed (being drilled), exploratory.

3.2.3 Summary of estimated net reserves and corresponding values.

3.2.3.1 Proved reserves and dollar values on a net cash-flow basis. Dollar values shall be calculated at current prices and costs, unless under contract as to price, to all future time. Additionally dollar values may be presented based on forecast prices and costs but critical assumptions in such a forecast shall be stated. Net cash-flow values shall be presented at discount rates of 0%, 10%, 15% and 20%.

3.2.3.2 Probable additional reserves and dollar values on a net cash-flow basis. Dollar values shall be calculated at current prices and costs, unless under contract as to price, to all future time. Additionally, dollar values may be presented based on forecast prices and costs but critical assumptions in such a forecast shall be stated. Net cash-flow values shall be presented at discount rates of 0%, 10%, 15% and 20%. Also, probable additional reserves shall be reduced for an allowance for the risk that is associated with the probability of obtaining production from such reserves.

3.2.3.3 A statement that the values reported under 2.3.1 and 2.3.2 may not necessarily be the fair market value of the reserves.

3.2.3.4 A statement as to whether the values are before or after income tax.

3.2.3.5 The discount factor selected should relate to the discount rates currently prevailing in the monetary market. The "non-escalated" case only should be disclosed until such time as world market conditions support assumptions of escalation in price.

3.2.4 The percentage and quantity of proved producing reserves which are currently on production. (See definition 6 of appendix 1.)

3.2.5 Definitions employed shall be the same as those listed in Appendix 1 to National Policy No. 2-B and any deviation shall be stated along with supporting reasons.

3.2.6 Discussion of methods employed. Identify the methods used to estimate reserves and production rates and to convert them to cash flows. Include any assumptions respecting the availability of markets.

3.2.7 Discussion and identification of risk factors used, particularly respecting probable additional reserves, and justification for their selection.

3.2.8 Acceptable disclaimer. State clearly any conditions respecting the responsibility of the author. For example, the author might indicate that all estimated reserve quantities were based on geological and engineering data provided by the issuer although the interpretation of the data was carried out by the author, and might state whether or not he has grounds for a judgment that the data are sound. He shall also state whether he made an on-site visit of the properties and, if not, state briefly the reasons why a visit was judged unnecessary.

3.2.9 Where proceeds of the issue are to be expended on drilling on a specified property(ies), the report shall contain recommendations, conclusions and cost estimates in respect of the proposed

drilling. Where appropriate, the author shall discuss the results of prior drilling on the property and on adjoining or nearby areas.

3.2.10 Summary of undeveloped gross and net acreage and value assigned to net acreage.

3.2.11 Signature and professional seal or permit stamp of author.

Item 4 - Supporting Material

The supporting material required falls under the following general headings.

1. Listing of Properties
2. Location of Prospects
3. Maps
4. Geology
5. Tabulation detail
6. Types of Reserves
7. Status of Reserve assigned
8. Issuer's Interest
9. Quantity of Reserve assigned
10. Forecast of future net production
11. Summary table

4.1 Listings of properties shall include, jurisdictions and location therein, and names of fields and areas including an index map(s).

4.2 Where some or all properties included are prospects, the report must state the location of the prospect with respect to established producing areas, if any.

4.3 Detail maps and plats

A property map should indicate

4.3.1 the issuers interest lands and the issuer's interest in them.

4.3.2 Wells in which the issuer has an interest and wells of others together with their status.

4.3.3 Specific legal property descriptions with designations of interest if more than one interest and property are illustrated.

4.3.4 In the case of the prospect property, symbols representing data on abandoned, suspended or producing oil and gas wells as they offset or occur in the area of interest of the prospect property at the time the report is prepared.

4.3.5 Where relevant, geological plats supporting geological information by legible surface and/or subsurface geological maps, cross sections and type logs drawn at scales deemed appropriate for presentation of the data. These may include stratigraphic facies maps, structure maps, insopach maps of net pay, porosity feet or hydrocarbon pore volume and maps presenting well production statistics.

4.4 A brief descriptions of the geology of the issuer's properties.

4.4.1 The following geological information would likely be helpful:

Nature of the hydrocarbon accumulation, its relationship to known subsurface stratigraphy and/or structure; reservoir parameters which may include weighted average porosity and connate water saturation, estimated average net pay and reservoir area, any test well data pertinent to the assessment of the reservoir accumulation. Where funds are to be spent on drilling, this section would include:

(a) Categorization of the well or wells to be drilled in terms of the degree of risk involved using the Lahee system (new field, new pool, development, etc.);

(b) A brief description of the primary and secondary objectives (zones and anticipated depths) of the drilling program;

(c) Influence, if any, of subsurface stratigraphic or structural considerations on a potential accumulation;

(d) What fluids, oil or gas, can be expected;

(e) Whatever additional data from offset wells or fields is pertinent to a proper description of the prospect, always conveying these facts in the appropriate context, pointing out the uncertainties and the possibilities of these facts not necessarily pertaining to the subject property.

4.5 Tabulations of reservoir rock and fluid parameters of each well or pool including, but not limited to, depth of each pay zone, its porosity, pay zone thickness (specify gross or net), water saturation, pressure, temperature, recovery factor, etc.

4.6 Types of reserves assigned:

4.6.1 crude oil;

4.6.2 synthetic oil, or bitumen and corresponding synthetic oil yield factor;

4.6.3 natural gas;

4.6.4 natural gas liquids;

4.6.5 sulphur.

NOTE: Reserves assigned to "tight-hole" or confidential (by-law) areas may be grouped and published as part of the listing as reserves only. Alternatively, if they are not included in the reserves listing, there shall be appropriate discussion describing the method of handling such properties.

4.7 Status of reserve assigned:

4.7.1 proved or probable additional;

4.7.2 proved producing or proved non-producing.

Methods of Reserves Determination

Reserves determinations should be supported by geologic concepts and data.

Reservoir recovery mechanism (i.e. solution gas drive, water drive, gravity drainage, etc.)

An estimate of:

(a) the original recoverable volumes of oil or gas present in the reservoir and the relation to estimated ultimate recoverable volumes;

(b) cumulative production to date;

(c) remaining recoverable volumes; current and optimum well spacing pattern.

4.8 Issuer's interest:

4.8.1 gross share of reserves before royalties;

4.8.2 applicable royalties and/or production payments;

4.8.3 net share of reserves after royalties;

4.9 Quantity of reserve assigned:

4.9.1 proved producing, proved non-producing, and total proved;

4.9.2 probable additional;

4.9.3 total.

4.10 Forecast of future net production, revenue, costs and net cash flow on a proved producing, proved non-producing, and total proved reserved basis and on a probable additional reserve basis, by jurisdiction (province, state, etc), and in total. Dollar values shall be calculated at current prices and costs, unless under contract as to price, to all future time. Additionally, dollar values may be presented based on forecast prices and costs but critical assumptions in such a forecast shall be stated. Net cash flow values shall be presented at discount rates of 0%, 10%, 15% and 20%. Also, probable additional reserves shall be reduced for an allowance for risk that is associated with the probability of obtaining production from such reserves.

The following may also be relevant:

(a) For those wells which have been placed on production within the past 12 months, statistics of oil/gas production by months with watercut data if applicable;

(b) Where production has ceased, reasons for such cessation should be disclosed together with plans (if any) for resumption of production and the estimated date on which such resumption is expected;

(c) Where start of production has been delayed, reason for such delay should be disclosed;

(d) Where mechanical problems have hampered production, remedial plans for putting the wells back on production, remedial plans for putting the wells back on production, plus other details should be disclosed.

4.11 A summary table itemizing the following basic assumptions, where applicable:

4.11.1 crude oil and synthetic oil price forecasts by jurisdiction;

4.11.2 natural gas price forecast by jurisdiction;

4.11.3 natural gas products price forecasts by jurisdiction;

4.11.4 capital and operating costs;

4.11.5 forecasts of inflation used respecting capital and operating costs;

4.11.6 forecasts of any other factors employed on a general basis (e.g. crown royalty scale if different from those existing as of the effective date of the study);

4.11.7 Details of undeveloped acreage (both gross and net) disclosing field or area name, jurisdiction, value assigned to each separate net acreage, and method of determining those values;

4.11.8 Where proceeds of the issue are to be expended on drilling on a specified property, the report shall contain recommendations, conclusions and cost estimates in respect of the proposed drilling. Where appropriate, the author shall discuss the results of prior drilling on the property and on adjoining or nearby areas.

It may also be relevant for the author to consider "reserves potential", i.e. would drilling the property, even if technically successful, represent an economically viable venture.

Item 5 - Consent to use of name in prospectus

See section 106 of the Securities Rules.

Item 6 - Certificate of Author

The certificate must be under the professional seal or permit stamp of the individual making the report.

See section 110 of the Securities Rules.

Item 7 - Consent letter

7.1 The report must be accompanied by a letter from the author consenting to the inclusion of his report and/or summary thereof in the prospectus or statement of material facts.

7.2 Irrespective of the manner in which B.C. requirements are complied with, it is likely that the body of a prospectus will contain references to or excerpts from a technical report. Where such references and excerpts appear in the interest of full, true and plain disclosure rather than as the sole means of compliance with the requirement for summary, the consent of the author of the full report to such references and/or excerpts is not required.