30 Cannon Street, London EC4M 6XH, United Kingdom
Tel: +44 (0)20 7246 6410 Fax: +44 (0)20 7246 6411
Email: iasb@iasb.org Website: www.iasb.org

International Accounting Standards Board

INFORMATION FOR OBSERVERS

Board Meeting:	**19 September 2008, London**
Project:	**Extractive Activities research project**
Subject:	**Summary of findings from 2007 user survey (Agenda Paper 15B)**

Overview

1. For information only.

2. This paper outlines some of the key findings from the research project's 2007 user survey. This paper is a summary of the agenda papers that the project team prepared in June 2007, when the user survey findings were discussed with the Board.

User survey

3. A user survey was undertaken to better understand the information needs of users involved in analysing minerals and oil & gas entities. A total of 34 user interviews were conducted with buy-side and sell-side analysts, debt rating agencies, lenders and venture capitalists from Australia, Canada, South Africa, the United Kingdom and the United States who specialise in analysing mining and oil & gas entities. As part of the user survey process, the project team also had informal discussions with some market and securities regulators.

Survey findings

4. The core findings from the user survey are:

   (a) the financial statements and note disclosures provide some information that is necessary for users to make an informed investment decision in relation to a minerals or oil & gas company – primarily information related to cash flow and current period expenditures – but the information provided in financial statements and note disclosures alone is not sufficient to meet the needs of analysts and much information is sourced elsewhere;

   (b) there is very limited interest in placing a valuation of reserves and resources (at current value or fair value) on the balance sheet;

   (c) there is limited interest in disclosing a valuation of reserves and resources (at current value or fair value);

   (d) measuring reserve and resource assets on the balance sheet according to a historical cost measurement model (e.g. successful efforts, full cost, area of interest) does not generate much useful information;

   (e) analysts generally would prefer more, and/or improved, disclosure of key valuation inputs so that those inputs could be incorporated into their own valuation models; and

   (f) directors sign off was generally identified as the preferred assurance or responsibility process that could be applied to the reporting of reserve information.

Sources of decision-useful information

5. As a high level summary, most users surveyed indicated that the minimum information relating to minerals or oil & gas properties (including exploration properties) they need to make an informed investment or lending decision in relation to a mining or oil & gas company is information on:

   (a) reserve and resource volumes – noting that there are different views as to which categories of reserves, or reserves and resources, should be reported;

(b) scheduling of development and production and expected life of the mine or field;

(c) production statistics (if producing);

(d) capital expenditures;

(e) operating expenditures; and

(f) fiscal regime (e.g. taxation, royalty or Production Sharing Contract (PSC) arrangements) – noting this is especially important in the oil & gas industry where PSCs in particular often have a non-linear relationship with changes in the estimate of recoverable oil & gas from the deposit.

6. This information is used by the analysts as an input (or reference) to their own valuation models, noting many analysts attempt to build a company valuation on a bottom-up basis. That is, they begin the company valuation by valuing, where possible, the individual assets that are material to the company. One mining analyst remarked that his aim is to develop a model that can generate a profit or loss statement and cash flow statement for each ore body.

7. Some analysts conceded that it was not always possible to build up a company valuation on an asset-by-asset basis. This might depend on the availability of the relevant information by mine or field. However it also depends on the size and complexity of the company. For instance, one analyst mentioned that he uses discounted cash flow techniques for valuing individual mines and companies with up to four mines. But for diversified companies, which may have numerous mines, different commodities and a range of optionalities associated with future prospects, he places more reliance on financial metrics (such as current earnings multiples, free cash flow yields, dividend yields etc) than on discounted cash flow techniques when making an investment assessment. Similarly, for integrated oil & gas companies that have numerous and significant upstream and downstream operations, it was noted that the detailed use of discounted cash flow techniques may not be as meaningful because the company valuation can be materially influenced by its downstream operations. Consequently, the use of financial metrics is more prevalent in analysing these companies and discounted cash flow techniques may be used to a more limited extent in analysing the upstream operations. It is understood that the portfolio effect associated with having a diverse

array of projects might enable analysts to assume relatively stable levels of future production, which therefore may permit valuations to be made on an ongoing cash flow basis.

8. There were differing opinions as to exactly what information is considered the minimum necessary to make an investment decision. Many of these differences can be attributed to information that is more relevant to either minerals or oil & gas. For example, mining analysts tend to also want information on grades (i.e. the quality of the mineral), distribution of the mineralisation (e.g. contiguous or erratic), existence of by-products (as the price of by-products may influence mining decisions), and mining and milling methods. Similarly, additional information requested by oil & gas analysts included information on reservoir qualities and the separate reporting of reserve information by location (i.e. onshore or offshore) and by type (e.g. liquids, gas, non-conventional energy such as gas-to-liquids and oil sands).

9. There are also some different information needs depending on whether the company is engaged in exploration projects, in development or production projects, or in upstream and downstream business. Due to the degree of uncertainty associated with exploration activities, the information needs are generally related to:

   (a) costs – specifically, understanding what is the cash flow and where it is being spent; and

   (b) management risk – specifically, understanding the reputation of management and its track record, both in exploration and also in progressing projects from exploration to development.

   Information on drilling results can also be relevant, although users expressed the need for great caution in evaluating early stage exploration results due to the high level of uncertainty associated with them.

10. The importance of information on exploration activities also depends on the company involved. Materiality is central to any analysis. One analyst explained that once the upstream is big enough, they will generally treat exploration as an operating cost. Understandably different analysts will have different views on what is and is not

11. Interestingly, analysts' perceptions regarding the usefulness of information also seems to be determined by their familiarity with the information reported, which in turn seems to be influenced by the jurisdiction where the company reports. For example, the standardised measure of proved oil & gas reserves, as required by FAS 69 *Disclosures about Oil and Gas Producing Activities*, was identified by some, but not all, oil & gas analysts that follow companies that report under, or reconcile to, US GAAP as providing information that is of some use. Some oil & gas analysts noted that the FAS 69 standardised measure provides some insight into, among other things, future development and operating costs and the impact of commodity price changes on the value of reserves. The general view among these oil & gas analysts seemed to be that the standardised measure should be treated with caution and is a long way from being perfect, but nevertheless it is referred to because that information may not be provided elsewhere. As one analyst suggested, it is not the measure itself which is useful, but the changes – and the reconciliation of those changes – that is useful. This view seems to be consistent with the comments in the FAS 69 Basis for Conclusions, which notes that the standardised measure is not intended to be representative of value, but rather its objectives are to provide users with information that can be used for their own valuation and to allow for a reasonable comparison of reserves.

12. Mining analysts, in contrast, generally did not think that a similar standardised measure disclosure would assist them in their analysis.

13. Despite there being some differences in information needs, a common theme that emerged from the survey has been the acknowledgement that much of the information users need is obtained outside of the financial statements and notes. The information provided in the financial statements and notes that is relevant to the valuation of a reserve and resource asset seems to be limited to cashflow information and cost and sales revenue information. Actual costs incurred are often used by analysts as a guide to estimating future capital and operating cost expenditures, not only for input into a valuation model for a particular property, but also for other properties held by the company or other properties held by other companies that have similar characteristics.

14. Other useful information provided in the financial statements and note disclosures includes information on debt, other liabilities, receivables, and working capital. This information is relevant for valuing the entity, but is not directly relevant for valuing the minerals or oil & gas property assets that the entity controls.

15. All other information that is relevant to the valuation of a reserve and resource asset seems to be obtained outside of the financial statements and note disclosures. For instance, the information could be obtained from:

    (a) the management commentary section of the annual report, noting this might include the reserves and resources statement (i.e. the disclosure of reserve and resource volumes), which is considered to be an essential input to any valuation of reserves and resources;

    (b) other reporting released to the market, such as quarterly production reports and feasibility studies;

    (c) analyst presentation packages and other information on company websites;

    (d) consultant reports and databases, which can include analysis on industry trends and risks as well as comprehensive databases that contain data on reserves, costs and production, and possibly also valuations, for most projects worldwide;[1] and

    (e) site visits (noting that this seems to be a more common occurrence for mining analysts than oil & gas analysts), which might include inspecting the mine site and infrastructure, discussions with geologists, engineers and mill managers etc.

16. The various sources through which analysts obtain information is reflective not only of the breadth of the information they use in their analysis. It also reflects the frequency with which some of that information is made publicly available. For instance, some information such as reserve and resource volume estimates are updated and reported annually. Production statistics are often reported quarterly. Other information, such as information on development plans and costs and anticipated production schedules is obtained from feasibility studies or project approval documents, and the analysts will input, adjust and maintain this information in their own valuation models.

Disclosure preferences

17. Users generally indicated that they would prefer more, and/or improved, disclosure of key valuation inputs so that those inputs could be incorporated into their own valuations.

18. Presentation of more disaggregated information has been a common request, especially from users covering the oil & gas industry. However, users preferring more disclosure acknowledged there are practical limitations to what could be reasonably disclosed. One analyst commented that he believes the industry is almost at the boundaries of practical disclosure at the moment, and noted that if disclosures go much further, it might penalise shareholders because commercially sensitive information might be disclosed. This observation is understood as relating to the combination of regulatory disclosures that are required to be made in leading jurisdictions and established best practices that have evolved in voluntary disclosures.

Level of disaggregation

19. A major finding from the user survey is that the majority of users would like more disaggregated information to be reported. The users' primary interest seems to be the disclosure of disaggregated information relating to valuation inputs such as reserve and resource volumes and costs, with the information preferably presented at the mine or field level. This reflects the users' desire for information that will assist them in preparing their own valuations.

20. In the oil & gas industry in particular, some analysts noted that there may be sensitivities between companies and host governments if information disaggregated to a level such as mine or field were disclosed. Aside from these sensitivities however, there is also the issue of the detail of disclosure that this requirement might create, especially for large companies. Presentation at a partially disaggregated level might offset some of these preparation and public disclosure concerns while still providing decision-useful information.

---

[1] Consultants that provide this material include Wood Mackenzie (for oil & gas) and Brook Hunt (for minerals).

Reserve and resource volumes

21. There was unanimous agreement among the users surveyed that disclosure of estimates of minerals and oil & gas reserve (or reserve and resource) volumes is necessary to support their analysis. However, there were differing views as to the categories of reserves and resources that should be disclosed.

22. Most minerals analysts indicated that they need disclosure of all categories of reserves (being proved reserves and probable reserves) and resources (being measured, indicated and inferred). This level of disclosure would correspond to the disclosure of volumes of minerals that have been discovered and, at a minimum, have "reasonable prospects for eventual economic extraction".[2] This level of disclosure is consistent with existing disclosure practice in jurisdictions such as Australia, Canada, South Africa and the United Kingdom. In the USA, SEC Industry Guide 7 *Description of property by issuers engaged or to be engaged in significant mining operations* limits minerals volume disclosure to proved reserves and probable reserves, unless additional disclosure is required to be disclosed by foreign or state law.[3]

23. There was no clear consensus among oil & gas analysts as to the amount of disclosure for oil & gas reserves and resources. Most analysts are interested in the separate disclosure of proved reserves and proved plus probable reserves, noting that proved plus probable reserves represents the estimate of most likely future production from projects approved for development or justified for development. Although disclosure practice in the USA (as set by FAS 69) is restricted to proved reserves, most, but not all, analysts suggested that the disclosure of proved reserves only is insufficient for valuation. However, a couple of analysts said that they primarily only focus on proved reserves, as they consider that probable reserves may be questionable, especially if in deep water or if they are concerned about the company's reputation. There seems to be less interest in disclosure of possible reserves, as these categories are considered to be too uncertain to factor into investment decisions. Similarly, there was limited demand for the disclosure of contingent resources.

---

2 Refer definition of a 'mineral resource', as per the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 edition – also known as the JORC Code. The JORC Code is a member of the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) family of reserve and resource definitions.

3 Refer SEC Industry Guide 7, paragraph (b)(5).

24. There did not seem to be strong demand from either minerals or oil & gas analysts for a financial report to disclose the results from exploration, which for instance in the minerals industry might include results from outcrop sampling, assays of drill hole intercepts, and geophysical survey results. The importance of information regarding exploration potential depends on the size of the company, and therefore the materiality of the company's exploration projects compared to its other operations (if any). One mining analyst suggested that it was difficult to make any inference of value from raw drill results. Two oil & gas analysts mentioned that they sometimes use expected monetary value or monte carlo techniques to estimate the value of exploration properties, although it was not expected that the required geological information would be provided in the financial report.

Development plans and production schedules

25. As an input to an analyst valuation, information on development plans and production schedules was considered to be useful as a guide. Some analysts mentioned that they adjust the schedules according to their own expectations of the schedule. Analysts noted that project-specific schedule information is usually made available at the time of an investment decision or feasibility study. The analyst may use this information to assess whether they consider the proposed development schedule to be achievable, and accordingly may factor in their own amendments. If a company is producing, the analyst will also use past production data to assist in their forecasts of future production.

26. There was general agreement among users that disclosure of a development and production schedule for each mine or field would be voluminous. The preferred view of analysts was for the disclosure of narrative discussion of the timing of key events associated with development and production plans and/or the disclosure of a production schedule for a limited forecast period.

27. With respect to narrative disclosure, it was noted that a discussion of the timing of key events is often already provided in the management discussion & analysis section of the annual report.

28. With respect to disclosure of a production schedule, analysts indicated most support for the disclosure of up to a forecast period of 5 years. A longer period was considered to be less decision-useful due to the effect of discounting and concerns regarding the

greater potential that the predictions will be inaccurate. Analysts supporting such a disclosure generally indicated that it would have to be presented on a disaggregated basis to be useful.

Development costs and operating costs

29. Users generally seemed to view the disclosure of development and production cost assumptions as helpful, but not necessary, disclosure for the financial report. Analysts indicated they use their own cost assumptions when making investment decisions. Their assumptions are generally based on:

    (a) information from project approval announcements (e.g. feasibility studies) and other regulatory filings;

    (b) industry experience and trends in comparable projects; and

    (c) (in the longer term) historical cash flows for the project in question.

30. This suggests that actual cost data is an important disclosure. As noted above, this information is a useful input in identifying industry trends and trends in comparable projects as well as being useful to forecast future cash flows – especially for production costs – for the project being valued.

31. Some analysts indicated that the disclosure of development cost assumptions was more important as it is more uncertain. The uncertainty is understood to be a combination of uncertainty regarding the development effort (which is a project-specific factor) and cost environment (which is a market factor). Consequently, although industry experience and trends in comparable projects may help the analyst to better understand the cost environment, the disclosure of development cost assumptions may help the analyst to understand the development effort required. Disclosure of development cost assumptions may also enable the analyst to assess the reasonableness of the company's assumptions, especially if the project will be operating in a high-cost environment.

Commodity price, exchange rate and discount rate assumptions

32. Most of the user interviews focussed on which commodity price and, to a lesser extent, which discount rate assumptions should be used in estimating reserve and resource

values and volumes (noting that reserve volume estimates essentially represent economically recoverable reserves). Almost all users surveyed displayed a preference for either the use of long-term entity-specific assumptions or the use of standardised assumptions – for price assumptions, the generally preferred standardised price was based on an average price for a set historical reference period. The lack of depth and liquidity of the forward markets was raised as a concern with using market derived price assumptions, noting also that forward markets do not exist for all commodities. One analyst believed that the forward market for oil is significant for 18 months into the future but very small thereafter. Therefore, in the absence of a suitable market derived price assumption that is observable and objectively determined, the general preference that emerged was either that an entity-specific assumption or a standardised assumption should be used.

33. Reasons supporting the use of entity-specific assumptions included that it shows management's view of the future, and therefore management's view of its assets. Disclosure of those assumptions is critical if a current value estimate is to be of any use. To the extent that the price assumption used is an entity-specific assumption, it would also be independently useful by helping the analyst to assess if the company is being aggressive in its view of the future and also providing a guide as to the price the company may pay or accept in asset sales. Some analysts considered that entity-specific price assumptions would therefore be commercially sensitive and would not expect those assumptions to be freely disclosed. It was noted that any requirement for such disclosure might prejudice the company – and therefore its shareholders – when competing for projects (or customers) with other resources companies that operate outside capital markets. One mining analyst did not agree that commercial sensitivity should be a concern except perhaps for some less common minerals.

34. Standardised assumptions were favoured:

    (a) for pragmatic reasons, such as the analyst did not expect companies would disclose their planning price assumptions and/or that disclosure of all price assumptions could be voluminous as some price assumptions might be project-specific; or

    (b) because of concerns about the subjectivity of a forward looking estimate.

Standardised assumptions are seen as being objective, verifiable and would allow for comparisons between companies. It was acknowledged that standardised assumptions are imperfect, and that there is a trade-off between comparability and understanding how management views its assets. Nevertheless, the findings of this survey suggest that many analysts, on balance, prefer the use of standardised assumptions.

Taxation / royalty obligations

35. Users indicated that it is important for them to understand the effect of taxation and royalty obligations, including the effect of Production Sharing Contracts (PSCs), in any current value estimate. Users attempt to incorporate the affect of these obligations in their own valuation models.

36. Usually the taxation or royalty regime for each country is generally known. However, less information is available on the terms of PSCs, because it is claimed that host governments do not allow the terms of the agreements to be disclosed. Aside from confidentiality concerns, some analysts suggested that the number and complexity of some PSCs may make it difficult to meaningfully condense the relevant information into a disclosure. The absence of this information affects a user's analysis. For instance, one analyst mentioned that although he tries to model oil & gas companies on a field-by-field basis, he does not have enough information to estimate the PSC impact on that basis. Some information or analysis may nevertheless be disclosed on the effect of PSCs. For example, it was noted that some companies disclose that a given price increase will change future reserves entitlements by a particular percentage.

37. Disclosing the effect of taxation and royalty obligations – and particularly, PSCs – was identified as an area where there is need for improvement. This is considered to relate not only to what information is disclosed, but also how it is disclosed. Comparability was identified as a problem. For instance, it was noted that in accounting for various oil & gas royalty obligations (including Production Sharing Contracts), the effect is sometimes reflected in the total of entitlement barrels and sometimes in the corporate tax line.

Other disclosures

38. Other disclosures that users indicated would be useful include:

(a) a historical record of finding and development costs that have been incurred for projects – this type of disclosure is considered useful for determining performance measures such as the return of capital employed; and

(b) reconciliations of year-to-year changes in reserve volume estimates – a prototype reconciliation was proposed as part of the user survey and most users suggested that a reconciliation would be useful to understanding the reasons why the estimate changed during the financial year.