ACCT6007 Financial Accounting Regulation: Application and Theory Module 5

Week 9 Accounting for Extractive Industries

Chapter 20

Learning Objectives

You will be able to

- Understand the extractive industries and associated unique accounting issues of these industries
- Account for exploration and evaluation expenditures under the area-of-interest method, as prescribed by AASB 6 *Exploration for and Evaluation of Mineral Resources*
- Account for an abandon an area of interest
- Account for amortised expenditure carried forward by an entity in the extractive industries
- Account for any restoration costs that might be incurred as a result of an entity's operations
- Understand the disclosure requirements of AASB 6, and non-financial disclosures made by entities in the extractive industries

Extractive Industries Defined

- Extractive industries engage in the search for natural substances of commercial value such as minerals, oil and natural gas, and in extracting these substances from the ground
- Searching for deposits generally involves considerable expenditure on geological and other studies (e.g. exploratory drilling) to determine whether areas are suitable for commercial development
- Other expenditure (post-exploration) often required before production possible
- Often lengthy period between initial exploration of area and production, possible changes in demand for product, could become uneconomical or less profitable than expected
- Need to consider whether preproduction expenditure (exploration, evaluation and development) results in an asset having been acquired
- AASB 6 *Exploration for and Evaluation of Mineral Resources* only addresses exploration and evaluation phases

Extractive Industries - Phases

Five phases can be identified

1. Exploration
   – Search for mineral deposit or oil or gas field
2. Evaluation
   – Determination of technical feasibility and commercial viability of prospect

The following phases are not covered by AASB 6

3. Development
   – Establishment of access to deposit or field
4. Construction
   – Establishment and commissioning of facilities
5. Production
   – Day-to-day activities aimed at obtaining saleable product from the deposit or field on commercial scale

Accounting Standards

- AASB 6 only relates to accounting for the exploration for and evaluation of mineral resources.
- The subsequent stages of development and construction are covered by other standards, including:
  - AASB 116 *Property, Plant and Equipment*
  - AASB 138 *Intangible Assets*
  - AASB 102 *Inventories*
  - AASB 118 *Revenue*
  - AASB 136 *Impairment of Assets*
  - AASB 137 *Provisions, Contingent Liabilities and Contingent Assets*

Extractive Industries - Phases (except Exploration and Evaluation)

Phase of operation / transaction or event	***Relevant standards*** [1]
Activities that precede exploration for and evaluation of mineral resources[2]	*Conceptual Framework* AASB 116 *Property, Plant and Equipment* AASB 138 *Intangible Assets*
Development and construction costs	AASB 116 *Property, Plant and Equipment* AASB 138 *Intangible Assets*
Amortisation of capitalised costs	AASB 116 *Property, Plant and Equipment*
Inventories	AASB 102 *Inventories*
Revenue recognition	AASB 118 *Revenue*
Restoration costs	AASB 137 *Provisions, Contingent Liabilities and Contingent Assets* AASB 116 *Property, Plant and Equipment* UIG Interpretation 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities*

1. Some issues related to extractive activities are not specifically dealt with in other Australian Accounting Standards. Consequently, entities may need to refer to the AASB 108 *Accounting Policies, Changes in Accounting Estimates and Errors* hierarchy in determining their accounting policies in these cases.
2. Paragraphs BC10—BC13 of the Basis for Conclusions to IFRS 6 *Exploration for and Evaluation of Mineral Resources* provide some guidance on the treatment of expenditures incurred before the exploration for and evaluation of mineral resources.

Major Accounting Issue

- A major problem of accounting for extractive industries: How to account for costs incurred in exploration and evaluation
  - Are they part of preproduction costs?
  - Should they be recognised as an asset or an expense?

Economically Recoverable Reserves

- Economically recoverable reserves are defined in Appendix A of AASB 6 as: ‘The estimated quantity of product in an *area of interest* that can be expected to be profitably extracted, processed and sold under current and foreseeable economic conditions’
- They are the ultimate source of revenue for firms in extractive industries
- Costs are incurred in the exploration phase to discover reserves and in the evaluation phase to ‘prove’ reserves … BUT are these expenses **or** assets?
- It is the discovery of ‘economically recoverable reserves’ that enables an entity to treat exploration and evaluation expenditure as an asset

AASB 6 *Exploration for and Evaluation of Mineral Resources*

- According to paragraph 1 of AASB 6, the objective of the standard is:
  - *to specify the financial reporting for the exploration for and evaluation of mineral resources*
- In particular, the standard requires:
  - entities that recognise exploration and evaluation assets to assess such assets for impairment pursuant to AASB 138
  - disclosures to be made that identify and explain amounts arising from exploration and evaluation to assist users to understand the amount, timing and certainty of future cash flows from any exploration and evaluation

Accounting for Preproduction Costs

- Potentially five major alternative methods of accounting for preproduction expenditure in the extractive industries:

1. Costs-written-off method
   - All exploration and evaluation costs written off as incurred
2. Costs-written-off-and-reinstated method
   - Exploration and evaluation costs written off as incurred, and reinstated if economically recoverable reserves found
3. Successful-effort method
   - Only exploration and evaluation costs resulting in the discovery of economically recoverable reserves are carried forward
4. Full-cost method
   - Matches all exploration and evaluation costs incurred against revenue from the total economically recoverable reserves across all sites—one cost centre
5. Area-of-interest method
   - Area of interest is an individual geological area which is considered to constitute a favourable environment for the presence of a deposit or field
   - Will usually comprise a single mine or deposit, or a separate oil or gas field—each to be considered separately
   - Area of interest underpins AASB 6

Area-of-interest Method

- Exploration and evaluation costs shall be expensed as incurred except that they **may be** carried forward (capitalised), provided that rights of tenure of the area of interest are current, and one of the following two conditions are met (AASB 6, par. Aus 7.2):
  - such costs are expected to be recouped through successful development and exploitation of the area of interest or, alternatively, by its sale, or
  - exploration and/or evaluation activities have not yet reached a stage that permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations in, or in relation to, the area are continuing

Area-of-interest Method (cont'd)

- The option in AASB 6 of allowing an organisation to carry forward exploration and evaluation expenditure on the basis that

  "*activities in the area of interest have not at the end of the reporting period reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves*""

- The Conceptual Framework's recognition criteria for assets require that it be 'probable' at the end of the reporting period that the future economic benefits embodied in an asset will eventuate.
- It could perhaps be argued, and this would support the rule in AASB 6, that as the work is ongoing, management must consider it probable that future benefits will eventuate

Area-of-interest Method (cont'd)

- Because AASB 6 requires exploration and evaluation costs to be either expensed or partially or fully capitalised (subject to the tests in paragraph Aus7.2), the standard effectively provides management with a choice between the costs-written-off method and the area-of-interest method.
- Because 'area of interest' is fairly loosely defined in AASB 6, this further provides management with some latitude in determining whether to carry forward expenditure or to write it off.

Measurement at Recognition

- Exploration and evaluation assets shall be measured at cost
- However, once exploration and evaluation expenditure has been recognised initially at cost, an entity may subsequently choose to use either the 'cost model' or the 'revaluation model' to account for exploration and evaluation assets
- Such models can be applied to tangible and intangible assets
- If the exploration and evaluation assets are intangible assets, AASB 138 *Intangible Assets* requires the existence of an 'active market' for those intangible assets if they are to be revalued

Movement between Phases

- Where an entity has decided to develop a project beyond the exploration and evaluation phase, subsequent expenditures will not be covered by AASB 6 since AASB 6 confines its focus to exploration and evaluation expenditures

- Further, all exploration and evaluation expenditures incurred prior to the decision to develop the site will thereafter not subsequently be covered by AASB 6, but will rather be reclassified as part of project costs that are subject to either AASB 116 *Property, Plant and Equipment* or AASB 138 *Intangible Assets* and will be subject to impairment testing as required

Movement between Phases (cont'd)

- When moving from the exploration and evaluation phase to subsequent phases of operations, the reclassified costs would be labelled 'assets under construction' or something similar rather than continuing to be labelled exploration and evaluation assets.
- When subsequent development phases are complete and production commences, the development expenditure, which would also typically be classified 'assets under construction', together with previous exploration and evaluation expenditures, would be reclassified either as property, plant and equipment or as an intangible asset titled 'mineral assets', or something similar

Cost Determination

- Elements of cost of exploration and evaluation (AASB 6, par. 9)
  - Acquisition of rights to explore
  - Topographical and other studies
  - Exploratory drilling
  - Trenching
  - Sampling
  - Activities in relation to technical and commercial feasibility and viability of extracting a mineral resource
    - General and administration costs only if they can be related directly to operational activities of area of interest to which exploration and evaluation relates

Preproduction Phase Costs and Revenues

- Costs (both direct and indirect) arising from exploration and evaluation activities and specifically related to an area of interest should be allocated to that area of interest
- General and administrative costs must relate directly to operations in an area before they can be capitalised

Area of Interest

- If an area is abandoned, costs carried forward relating to that area should be expensed in the period in which the decision to abandon is made
- Although not specifically mentioned in AASB 6, this would necessarily occur with annual impairment testing, as the carrying value of costs carried forward would have no future economic benefit and would therefore be recognised as an impairment loss
- If some expenditures incurred in relation to an area of interest have alternative uses, e.g. machinery has been constructed which can be dismantled and used on other sites, such expenditure would not be expensed when an area is abandoned
- This is consistent with AASB 116 *Property, Plant and Equipment*, the useful life of the asset would not be tied to the life of the are of interest

Impairment and Amortisation

- Where direct and indirect costs for exploration, evaluation and development of a specific area of interest are carried forward, there is a general requirement for them to be amortised against revenue earned during the production phase
- During the exploration and evaluation phase there is typically no revenue against which capitalised costs can be amortised.
- Nevertheless, the carried-forward expenditure is required to be subject to regular impairment testing.
- This is because the capitalised exploration and evaluation expenditure has not generated an asset that is available for use, it would not be depreciated but it would need to be tested for impairment

Impairment and Amortisation (cont'd)

- Tests of impairment (par. 20 of AASB 6)
- One or more of the following facts and circumstances indicate that an entity should test exploration and evaluation assets for impairment (the list is not exhaustive):

(a) The period for which the entity has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed

(b) Substantive expenditure on further exploration for and evaluation of mineral resources in the specific area is neither budgeted nor planned

Impairment and Amortisation (cont'd)

Tests of impairment (par. 20 of AASB 6) (cont.)

(c) Exploration for and evaluation of mineral resources in the specific area have not led to the discovery of commercially viable quantities of mineral resources and the entity has decided to discontinue such activities in the specific area

(d) Sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale

In any such case, or similar cases, the entity shall perform an impairment test in accordance with AASB 136. Any impairment loss is recognised as an expense in accordance with AASB 136

Amortisation

- In relation to total costs carried forward to the production phase, the costs should generally be allocated over the life of the economically recoverable reserve in terms of *production output*
- In some cases, in terms of a *time period* such as a fixed period tenure of the area of interest
- Time would be appropriate as the basis of amortisation in cases such as when there is considered to be an abundance of reserves and the major limiting factor is the length of the mining right

Depreciation

- Tangible assets carried forward are subsequently to be accounted for in accordance with the requirements of AASB 116 *Property, Plant and Equipment*
- Consistent with AASB 116, the costs of facilities established, if they are depreciable assets, should be depreciated over the useful life of the area of interest for which they were acquired
- The exception to this is where the assets can be transferred to some other area of interest or can be of some further use not necessarily connected with any particular area of interest
- Assets that are portable, such as demountable buildings, should be depreciated over their own specific useful lives, which might be different from the life of the area of interest
- The amortisation charges are part of the cost of production, and as such they should ultimately form part of the cost of inventory

Restoration Costs

- May be either a legal or moral obligation to restore area after cessation of operations. Required:
  - Estimate total restoration costs at commencement of project
  - Provision for this cost throughout operations
    - Restoration costs are to form part of the cost of the respective phases of operations
  - Once production commences, restoration costs to be treated as cost of production
- Dealt with under:
  - AASB 137 *Provisions, Contingent Liabilities and Contingent Assets*
  - AASB 116 *Property, Plant and Equipment*

Obligations for Restoration

- Provisions, including provisions for restoration, are to be measured at present values. Specifically, paragraphs 36, 45 and 47 of AASB 137 require:

  36. The amount recognised as a provision shall be the best estimate of the expenditure required to settle the present obligation at the end of the reporting period

  45. Where the effect of the time value of money is material, the amount of a provision shall be the present value of the expenditures expected to be required to settle the obligation

  47. The discount rate (or rates) shall be a pre-tax rate (or rates) that reflect(s) current market assessments of the time value of money and the risks specific to the liability. The discount rate(s) shall not reflect risks for which future cash flow estimates have been adjusted

Provision for Restoration

- The reporting entity would be required periodically to reassess the amount provided for the restoration provision
- Issues to consider: changes in expected future costs, changes in expectations relating to the amount of disturbance being caused, changes in relevant laws and changes in technologies utilised to perform the restoration and rehabilitation works

Sales Revenue

- Sales revenue should not be brought to account until the product is in the form in which it is to be sold (i.e. requires no further processing by vendor) and legal title in the product has passed to the control of the purchaser

Inventory

- Resources must be actually extracted before being classed as inventory.
- Inventory to be classed as such at the stage when product can be measured with reliability and the quantities of materials can be determined by physical measurement or reliable estimate
- Dealt with under AASB 102 *Inventory*

Presentation

- Classification
  - Tangible or intangible, depending on nature of assets
- Reclassification
  - Where technical feasibility or commercial viability demonstrable
    - assessed for impairment and any impairment loss recognised before reclassification
- Impairment
  - Where facts and circumstances suggest carrying amount may exceed recoverable amount, impairment loss measured under AASB 136

Disclosure

- An entity shall disclose:
  - accounting policies for exploration and evaluation expenditures, including recognition of exploration and evaluation assets
  - amounts of assets, liabilities, income and expense and operating and investing cash flows arising from exploration and evaluation
  - explanation that recoverability of carrying amount is dependent on successful development and commercial exploitation or sale of respective areas of interest
- Exploration and evaluation assets shall be a separate class of assets

Compare Cost Methods

- Comparison of full-cost method and area-of-interest method
  - Refer to Worked Example 20.2 on pp. 723–724: Comparison of the full-cost method and the area-of-interest method
- Application of area-of-interest method
  - Refer to Worked Example 20.3 on pp. 725–727: Application of the area-of-interest method

Compare Cost Methods (cont'd)

- When resources are found the cost of assets shown would understate actual value of reserves
- Uncommon for Australian companies to revalue reserves to expected fair value
- Has implications for profit
  - Upward revaluation goes to revaluation surplus, not profits
- If revalued, cost of sales increases
  - Results in reduced profit
- Reasons for not recognising expected fair values of resources
  - Uncertainty regarding the value of reserves
  - Extractive companies subject to high levels of political scrutiny
  - Revaluation credit cannot go to income

Accounting for Preproduction Costs – Research Outcomes

- US proposal to permit only successful-effort method when previously it also allowed the use of full-cost method would have been likely to affect cash flows of firms, and impacted on covenants in contractual agreements
- Share price of firms using full-cost method fell following issue of exposure draft
- Emphasises how a change in rules by accounting regulators can create real changes in organisational behavior
- Great number lobbied against ED
- Suggested that, in Australia, considerations of political costs influence how firms account for preproduction costs

Other Reporting Developments

- Many mineral and energy companies presently making disclosures about their social and environmental performance
- Public social and environmental performance reporting subject to limited statutory regulation (reasons?)
- Guidance documents released by international industry associations
  - For example, GRI Guidelines
- Australian Minerals Code for Environmental Management released in 1997 (Minerals Council)
  - Revised and reissued in 2000, with further changes in 2005
  - Now known as Enduring Value: The Australian Minerals Industry Framework for Sustainable Development

Accounting Standard Development

- In 2004 the IASB set up an international project team to research accounting for the extractive activities.
- The ultimate intention is to develop a new accounting standard to replace AASB 6, i.e. the standard on which this chapter is based, and which was actually developed as an 'interim standard'.
- A Discussion Paper was released by the IASB in April 2010.
- However, it is anticipated that a new IFRS would not be issued before 2015, and it may even be some time later than that.

Accounting Standard Development (cont’d)

According to IASB (2010), the financial reporting issues that need to be considered in developing a new accounting standard for the extractive activities include:

(a) *definitions of reserves and resources for use in the accounting for, and disclosure of, extractive activities;*

(b) *the assets related to extractive activities that should be recognised in financial statements and when they should be recognised;*

(c) *how those assets should be measured on initial recognition—alternatives include the historical cost of acquisition or discovery and fair value or some other current value basis;*

(d) *how those assets should be measured in reporting periods after initial recognition, including issues such as re-measurement, impairment and depreciation; and*

(e) *the information about extractive activities, including reserves and resources information, that should be disclosed in financial statements.*

Workshop Questions

Chapter 20

Review Questions: 1, 6, 7, 9, 12, 14

Challenging Questions: 16, 17