ADVANCED FINANCIAL ACCOUNTING

ACF3100

Semester 2 - 2017

Importance of the industry

- One of the biggest industries in Australia
- 5% of GDP
- exports 35% of total receipts

Pre-production phase

Phase	Definition	Costs
Exploration	Includes the topographical, geological, geochemical and geophysical studies that are usually made over a wide area	Surveys, salaries, supplies, use of equipment, payment to property owners for access
Evaluation	Work is undertaken to determine the technical feasibility and commercial viability of the prospect	Salaries and wages, supplies, transport, depreciation, rentals etc.
Development	Activities involved in the establishment of access to the deposit or field and other preparation for commercial production	Wages and salaries, supplies, depreciation, payments to contractors
Construction	Includes the establishment of the facilities for extraction, treatment and transportation from the deposit or field	Infrastructure, buildings, plant and equipment
Production	Activities involved in extracting output from the deposit or field on a commercial scale, as well as any relevant processing before the sale of the output	Amortisation, depreciation, labour overheads, restoration, royalties etc.

Various accounting methods

Approach	Description	Arguments for
Expense (or cost written-off) method	Recognises the costs as expenses in the period they are incurred in	• Usually a *low probability* that the costs incurred in exploring and evaluating a prospect will lead to the discovery of a commercial deposit • Companies that are already producing from existing reserves are *more likely to expense* pre-production costs than companies that are only in the exploration stage • Exploration and evaluation costs *should be recognised as expenses* to be matched with the current period's sales revenue
Expense and **reinstate** method	Recognises the costs as expenses in the period they are incurred; but Reinstates them as *assets* if the costs subsequently give rise to economically recoverable reserves	• It defers the recognition of an asset until the future economic benefits are probable • It provides an entity with the opportunity of matching the pre-production costs with the associated revenues
Full cost method	Recognises the costs as an asset irrespective of the	• All exploration and evaluation costs are part of an overall effort to discover reserves and therefore should be recognised as assets

	likely success of the exploration program	• Provides amounts in the statement of financial position closer to the 'true worth' of the deposit
Successful efforts method	Limits asset recognition to those costs *likely to result in the discovery* of economically recoverable reserves	• If the early results of an exploration program in a particular area seem to be favourable, or are uncertain, the costs would be recognised as an asset • Used in Australia
	Three possible outcomes from an exploration program: • Results of the exploration program in a *particular area* may be *unsuccessful* • If the *early results* of an exploration program in a particular area seem to be favourable, or are uncertain, the costs would be recognised as an *asset* • If the results of the exploration program are *successful*, all the costs for that area are recognised as an asset	

Area of interest

- Is a special case of successful effort method
- Define: an individual geological area which is considered to constitute a favourable environment for the presence of a mineral deposit or an oil or natural gas field, or has been proved to contain such a deposit or field

Accounting for exploration and evaluation costs

For each area of interest, exploration and evaluation costs must be either:

1. Expensed as incurred, or
2. Partially or fully capitalised as an asset if *Aus 7.2* is satisfied

Aus 7.2

Exploration and evaluation costs for an area of interest may be carried forward as an asset if:

1. Rights to tenure of the area are *current*; and
2. At least one of the following is also met:
    a. Exploration and evaluation costs are *expected to be recouped*; and
    b. Exploration and evaluation has *not yet reached a stage* permitting a reasonable assessment of the *existence of reserves*, and active and significant operations are ongoing

Changes in accounting policies

Entity may change accounting policies for exploration and evaluation if the change makes the financial statements *more relevant, no less reliable, more reliable or no less relevant.*

Lecture illustration

#2

Fraser Island Ltd commences operations on 1 January 2015. During 2015, Fraser Island explores two areas and incurs the following costs.

Other information

- *In 2016, oil is discovered at Site B. Site A is abandoned owing to the failure to prove the existence of economically recoverable resources, and an impairment loss is recognised in relation to Site A. Of the $8 million incurred at Site B, $5 million relates to tangible assets and*

$3 million relates to intangible assets. At Site A, $12 million of the expenditure related to tangible assets and $5 million related to intangible assets.

- *Development costs of **$20 million** are incurred at Site B (to be written off on a production basis) in 2016. The development costs include **$12 million** in property, plant and equipment and **$8 million** in intangibles. This expenditure will be depreciated/amortised on a production basis.*
- *Development at Site B concludes at the end of 2016, and production commences at Site B at the start of 2017.*
- *It is estimated that the amount of oil at Site B is eight million barrels. The current sale price is **$30** per barrel.*
- *In 2017, Fraser Island Ltd extracts **1.2 million barrels** at a production cost of **$3.6 million** and sells **1.1 million barrels**.*

Exploration and evaluation expenditure	($m)
A	17
B	8
	25

Required

Provide the necessary journal entries using: ***The area-of-interest method***

2015		$m	$m
Dr	Exploration and evaluation assets - Site A	17	
Dr	Exploration and evaluation assets - Site B	8	
Cr	Cash/Payables etc.		25
	(account for initial exploration and evaluation)		
2016			
Dr	Assets under construction - *prop., plant and equip*	5	
Dr	Assets under construction - *intangible assets*	3	
Cr	Exploration and evaluation assets - **Site B**		8
	(reclassify to assets under construction)		
Dr	Impairment loss - exploration & evaluation assets	17	
Cr	Exploration & evaluation assets - **Site A**		17
	(impairment loss)		
Dr	Assets under construction - prop, plant and equip.	12	
Dr	Assets under construction - intangible assets	8	
Cr	Cash/Payables/Provision for depreciation etc.		20
	(recognise development costs) (site B)		
2017		**$m**	**$m**
Dr	Property, plant and equipment - Site B **(12+5)**	17	
Dr	Intangible mineral assets **(3+8)**	11	
Cr	Assets under construction - prop, plant and equip.		17
Cr	Assets under construction - intangible assets		11
	(to reclassify preproduction to production)		
Dr	Inventory of crude oil	4.2	
Cr	Accum depreciation-prop., plant and equip - Site B		2.55
Cr	Accum amortisation-intangible mineral assets		1.65

($28m/8m barrels = $3.50, then 1.2 x 3.50 = 4.2)

$28m = 17 + 11

Depreciation worked out as a % - PPE of 17 is 60% of 28. So 4.2 x 60% = 2.55

Dr	Inventory of crude oil	3.6	
Cr	Cash/Payables/Provision for depn etc.		3.6
	(to recognise production costs as a cost of inventory)		

Dr	Cash/Receivables	33	
Cr	Sales revenue		33
	(1.1m x $30)		
Dr	Cost of goods sold	7.15	
Cr	Inventory of crude oil		7.15
	((3.6m + 4.2m)/1.2) x 1.1		

Worked example 20.1 – Accounting for restoration

During the reporting period ending 30 June 2018, Nichol Ltd erected an oil rig in Noosa River. The cost of the rig and associated technology amounted to $99 500 000.

The oil rig commenced production on 1 July 2018. At the end of the rig's useful life, which is expected to be five years, Nichol Ltd is required by its resource consent to dismantle the oil rig, remove it, and return the site to its original condition. After consulting its own engineers and environmentalists, Nichol Ltd estimates that if such work was required to be done at the present time it would cost $15 000 000. Anticipating that inflation will average 3 per cent over the next five years, the adjusted cost is expected to be $15 000 000 × $(1.03)^5$, which equals $17 389 111. If we accept that the rate on five-year government bonds reflects the relevant time value of money, and if the rate is 4 per cent, then the present value of the restoration provision would be $17 389 111 ÷ $(1.04)^5$, which equals $14 292 582.

Required

Prepare the journal entries necessary to account for the establishment of the rig and the changing balance of the restoration provision for the years ended 30 June 2018, 30 June 2019 and 30 June 2020. Ignore depreciation.

June 30 2018

DR	Oil Rig	113,792,582	
CR	Cash/account payable		99,500,000
CR	Provision for restoration costs		14,292,582

Note: discounting the future obligation for restoration creates interest costs for future years. Thus, the borrowings (interest) costs are allocated to specific years:

Date	Opening balance	Interest at 4%	Balance of site restoration costs
1 July 2018	-	-	14,292,582
30 June 2019	14,292,582	571,703	14,864,285
30 June 2020	14,864,285	594,572	15,458,857
30 June 2021	15,458,857	618,354	16,077,211
30 June 2022	16,077,211	643,088	16,720,299
30 June 2023	16,720,299	668,812	17,389,111

Journal entries to recognise periodic interest charges are:

June 30 2019

DR	Interest expense	571,703	
CR	Provision for restoration costs		571,703

During the year ended 30 June 2016, the Dimbulah Mining Company acquired three areas – ***North Western***, ***East Western*** **and** ***Western*.** The details of the costs incurred in undertaking exploration and evaluation in these areas during the past year are as follows:

Site	Acquisition costs	Exploration	Evaluation
North Western	$6 000 000	$12 000 000	$4 000 000
East Western	$12 000 000	$8 000 000	$0
Western	$6 000 000	$14 000 000	$3 500 000

On 29 March 2016 ore is discovered at the ***North Western*** site. Company geologists estimate that 100 000 tonnes of ore are located at the site, which exceeds the company's minimum benchmark of 50 000 tonnes of ore to proceed with the development of an area of interest.

The ***Eastern*** site has also been identified by conservation groups as the only mainland Australian habitat for a rare and endangered marsupial. Recent Australian Commonwealth legislation regarding rare and endangered Australian marsupials imposes an unconditional ban on any development in habitat areas.

Exploration at the ***Western*** site is still preliminary and company geologists expect to have access to core drilling data in early 2017, which will assist in assessing the viability of the area of interest.

Determine the amount of exploration and evaluation assets recognised by Dimbulah Mining Company for the year ended 30 June 2016 in accordance with the requirements of AASB 6 'Exploration for and Evaluation of Mineral Resources'.

AASB 6 requires that the decision to expense or capitalise exploration and evaluation costs is made for each area of interest - in this case, the **North Western, East Western and Western** areas of interest.

North Western area of interest - The $22 000 000 in exploration and evaluation costs ($6m + $12m + $4m) can be capitalised as exploration and evaluation assets in accordance with paragraph Aus7.1(b) of *AASB6* because the conditions of paragraph Aus7.2 are met. That is:

a) There is no evidence to suggest any impediments to the current rights to tenure of the area of interest; and
b) The exploration and evaluation costs are expected to be recouped through successful development and exploitation of the area. The estimated reserve of 100 000 tonnes of ore exceeds the company's minimum commercial viability benchmark of 50 000 tonnes of ore.

East Western area of interest

The $20 000 000 in exploration costs ($12 000 000+$8 000 000) would be recognised as an expense in accordance with paragraph Aus7.1(a) of *AASB6* because the conditions of paragraph Aus7.2 are not satisfied. That is:

a) The current rights to tenure of the area of interest will likely be negated by the Commonwealth legislation that bans all development – for i.e. In the habitats of rare and endangered Australian marsupials; and
b) This ban makes the recoupment of the exploration costs through successful development of the area unlikely.

Western area of interest

The $23 500 000 in exploration and evaluation costs ($6 000 000+$14 000 000+$3 500 000) can be capitalised as exploration and evaluation assets in accordance with paragraph Aus7.1(b) of *AASB6* because the conditions of paragraph Aus7.2 are met. That is:

a) There is no evidence to suggest any impediments to the current rights to tenure of the area of interest; and
b) The exploration and evaluation costs have not reached a stage that permits a reasonable assessment of the existence or otherwise for economically recoverable reserves, with significant evaluation activities (e.g. core drilling) continuing at least into early 2017.