Sensitive: Legal



Your Ref:

My Ref: T01 201801001

Kiri Mattes (Principal Solicitor) **Tel:** (02) 8093-5538

Fax: (02) 9224-5222 crownsol@cso.nsw.gov.au

29 July 2019

Ms Georgina Woods Lock the Gate Alliance Limited PO Box 290 NEWCASTLE NSW 2300

By email: georgewoods79@gmail.com

Dear Ms Woods

Shenhua Watermark Coal v Department of Planning & Environment - NCAT proceedings 2018/87555

I refer to my previous correspondence of 18 April 2018, by which I informed you of the above-named proceedings, and of the right of Lock the Gate Alliance to appear and be heard. I note that the Alliance did not go on to play an active role in the proceedings.

On 17 June 2019, the Tribunal handed down its decision in these proceedings: *Shenhua Watermark Coal Pty Limited v Department of Planning and Environment* [2019] NSWCATAD 119. The Tribunal made orders varying the Department's decision to provide for the redaction of certain personal information from the documents in issue, but otherwise affirming the Department's decision to release information in response to your application.

Accordingly, please now find enclosed the documents that remained in issue in these proceedings, which are provided to you in response to your access application under the *Government Information (Public Access) Act 2009* of 18 July 2017.

Please do not hesitate to contact Kiri Mattes on (02) 8093-5538 if you have any queries in relation to this matter.

Yours faithfully

Kiri Mattes

Principal Solicitor

for Crown Solicitor

Encl.

Schedule of Documents

No.	Description of record	Location of record in agency	Decision	Objection by third party
1.	Application to renew EL7223	Resources & Geoscience	Partial Release 3(a)(b)	Y - partial
2.	Email between Shenhua and Department 2/6/17	Resources & Geoscience	Partial Release 3(a)	Y - partial
3.	Email between Shenhua and Department 29/6/17	Resources & Geoscience	Partial Release 3(a)	Y - partial
4.	Мар	Resources & Geoscience	Release	Y- partial
5,	Coordinates	Resources & Geoscience	Refused 4(c)(d)	Y – whole document
6.	Renewal Justification Statement September 2016	Resources & Geoscience	Partial Release 4(c)(d)	Y- partial
7.	Prospecting Work Program	Resources & Geoscience	Refused 4(c)(d)	Y – whole document
8.	Email between Shenhua and Department 30/6/17	Resources & Geoscience	Partial Release 3(a)(b)	Y-whole document
9.	Email between Shenhua and Department 30/6/17	Resources & Geoscience	Partial Release 3(a)(b)	Y - partial
10.	Email between Shenhua and Department 29/6/17	Resources & Geoscience	Partial Release 3(a)(b)	Y - whole document
11.	Prospecting Title Work Program	Resources & Geoscience	Refused 4(c)(d)	Y – whole document
12.	Email between Shenhua and Department 3/5/17	Resources & Geoscience	Partial Release 3(a)	Y - partial
13.	Statements of Corporate Compliance, Environmental Performance History and Financial Capability	Resources & Geoscience	Partial Release 3(a)	Y - partial
14.	Rehabilitation Cost Estimate Tool	Resources & Geoscience	Partial Release 4(c)(d)	Y - partial

15.	Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate	Resources & Geoscience	Partial Release 3(a)(b), 4(c)(d)	Y - partial
16.	Attachment A – Summary of exploration activities and rehabilitation status June 2017	Resources & Geoscience	Refused 4(c)(d)	Y – whole document
17.	Attachment B Rehabilitation Objectives and Completion Criteria June 2017	Resources & Geoscience	Release	Y – whole document
18.	Letter from Department to Shenhua 16/1/17	Resources & Geoscience	Release	Y - partial
19.	Map – Completed boreholes by stage	Resources & Geoscience	Refuse 4(c)(d)	Y – whole document
20.	Email between Shenhua and Department 25.7.17	Resources & Geoscience	Release	Y - partial
21.	Email between Shenhua and Department 31/5/17	Resources & Geoscience	Release	Y - partial
22.	Email between Shenhua and Department 31/5/17	Resources & Geoscience	Release	Y - partial



DOCUMENT 1

Form EL5 Application to renew an EL

Further redactions required





Form EL5

Application to renew an exploration licence

Mining Act 1992

April 2017 | v4.7

More information

For help with lodging this application, or for more information about authorisations in New South Wales, contact:

Division of Resources and Geoscience

Titles Customer Assistance Line Phone +61 2 4931 6500

titles.services@industry.nsw.gov.au

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The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Planning and Environment or the user's independent advisor.

Privacy statement

This information is collected by the NSW Department of Planning and Environment for the purposes of assessing an application for an authorisation or associated with an authority as required by the Mining Act 1992 or Mining Regulation 2016.

This information may also be used by the department to confirm applicant details in the event that subsequent applications are made, and may also be used to establish and maintain databases to assist the department with its work generally.

Except for purposes required by law, the information will not be accessed by any third parties in a way that would identify the person without the consent of that person.

You may apply to the department to access and correct any information the department holds if that information is inaccurate, incomplete, not relevant or out of date.

When to use this form

Complete this form if you are applying to renew an exploration licence under the *Mining Act* 1992 in New South Wales.

This form has been prepared in accordance with <u>Section 113</u> of the <u>Mining Act 1992</u> and <u>Clause 18</u> of the <u>Mining Regulation 2016</u>. The form and associated templates are approved in accordance with <u>Section 382</u> of the <u>Mining Act 1992</u>. The information requested in this form may not be specifically referenced in the <u>Mining Act 1992</u> or the <u>Mining Regulation 2016</u> however its inclusion in the approved form validates the authority of the NSW Department of Planning and Environment (the department) to request it.

If you require more information regarding exploration licences, refer to the <u>Industry guidelines: exploration licences for</u> groups 1-8, 9A 10 and 11 (non-coal minerals).

If there is insufficient room in any of the fields please provide the information as an attachment.

Important notes

Any information or template that is required to accompany this application should be lodged within 10 business days of the lodgement date. Failure to supply the information within this timeframe may be considered as grounds for refusing the application according to Schedule 18, Clause 6(d) of the Mining Act 1992.

If this application is lodged by any party other than the applicant/s (ie. an agent), the department may seek confirmation of that authority and any limits of that authority given to that other party by the applicant (Section 163F of the *Mining Act 1992* and Clause 97 of the *Mining Regulation 2016*). The agent will need to complete the declaration at the end of this form and supply evidence of their appointment, if not already supplied to the department.

You must lodge your renewal application within the period of two months prior up to midnight on the expiry date of the exploration licence.

How to submit this form

- By email: Send an electronic copy of the form including any attachments and proof of payment to titles.services@industry.nsw.gov.au
- By mail: Mail your form, any attachments and proof of payment to Division of Resources and Geoscience, Titles Services, PO Box 344, Hunter Region Mail Centre NSW 2310.
- In person: Submit your application in person at the Division of Resources and Geoscience's Titles Services
 office, 516 High Street, Maitland, New South Wales. Office hours are 9.30am to 4.30pm.

How this application will be processed

Once your application has been registered and checked, it will be assessed by the department. The Minister for Resources (or their delegate) will consider the department's recommendation and all relevant information, and may propose to grant or refuse the application.

The target processing time for applications for renewals is 45 business days.

1 Explora	tion licence details
EL number	7223 Act Mining Act 1992
Licence expiry date	22/2/2016
2 Term fo	r which licence is sought
Years sought	Note the maximum term is six (6) years.
-	tion licence holder details e of authority holder/s and if applicable, the ACN or ARBN (for foreign
Name	Shenhua Watermark Coal Pty Ltd
ACN / ARBN	133264230
Registered street addre	ess 368-370 Conadilly Street Gunnedah NSW
Postal address	Same as above Enter here if different
Name	
ACN / ARBN	
Registered street addre	ess
Postal address	Same as above Enter here if different
Name	
ACN / ARBN	
Registered street addre	ess
Postal address	Same as above Enter here if different
Additional author	ority holders
	e, ACN or ARBN (for foreign companies), registered street address and is of additional holders.

4 Licence holders seeking renewal

Information about licence holders and renewal applications can be found in <u>Section 116</u> of the *Mining Act 1992*.

4.1	Where the exploration licence is held by more than one holder, are all holders seeking renewal?
	Yes
	No. Provide written confirmation from the party who is not seeking renewal. Check the box below to indicate you have attached this confirmation to your application
	☐ I have attached confirmation from the party who is not seeking renewal.
5	Contact for this application
Any co	rrespondence in relation to this application will be sent to this person.
Contact	name
Position	n held
Compa	ny
Postal a	address
Phone	(inc. area code)
Mobile	
Email	
Your	preferred contact method
\boxtimes	Email (For companies – provide a generic company email address which is regularly

monitored rather than an individual employee's email address.)

Mail

6 Groups of mineral/s

Are v	ou see	eking renewal for all of the groups you currently hold?			
	Yes.		Note that any group 9 exploration licences granted before 18 December 2015 will continue to include groups 9 and		
\boxtimes	No.	If no, select the group/s you wish to retain.	9A unless requested by the exploration licence holder/s.		
		Group 1 (Metallic minerals)			
		Group 2 (Non-metallic minerals)			
		Group 3 (Semi-precious stones)			
		Group 4 (Marine aggregate)			
		Group 5 (Clay minerals)			
		Group 6 (Corundum, diamond, ruby and sapphire)			
		Group 7 (Opal)			
		Group 8 (Geothermal energy)			
	\boxtimes	Group 9 (Coal)			
		Group 9A (Oil shale)			
		Group 10 (Mineral sands)			
		Group 11 (Uranium and thorium)			

Proposed area for renewal

This help text relates to Questions 7-12.

You need to identify the land to be renewed. Note that:

- you can only renew up to half of the existing exploration licence area, unless you can justify that there are <u>special circumstances</u> supporting renewal over a larger area
- the maximum number of parts of an exploration area you can apply to renew is five (5)
- you can only apply to renew an area of land held at the time this renewal application was lodged (you cannot apply for area you did not hold prior to the expiry date).

For details on the area that can be renewed read the department's licence renewal policy and see Part 7 Division 1 of the Mining Act 1992 and Clause 18 of the Mining Regulation 2016.

For more information on special circumstances read the department's <u>Policy on renewal of exploration licences for minerals</u> and <u>Policy on renewal of exploration licences for coal.</u>

7 Percentage of area to be renewed

You can only renew up to half of the existing exploration licence area, unless you can justify that there are <u>special circumstances</u> existing to support renewal over a larger area.

Indicate the portion of area you are applying to renew.

⋈ I am applying to renew 50% or less of the licence area.

Provide justification for renewal by completing a <u>renewal justification statement</u> (Question 11) and identify the renewal area:

- For groups 1-8, 10-11 ▶ Go to Question 8
- For group 9 (coal) ▶ Go to Question 9
- For group 9A (oil shale) ➤ Go to Question 10
- I am applying to renew more than 50% and less than 100% of the licence area.

Provide justification for renewal and special circumstances by completing a <u>renewal</u> justification statement (Question 11) and identify the renewal area:

- For groups 1-8, 10-11 ➤ Go to Question 8
- For group 9 (coal) ➤ Go to Question 9
- For group 9A (oil shale) ▶ Go to Question 10
- l am applying to renew 100% of the licence area.

Provide justification for renewal and special circumstances by completing a <u>renewal justification statement</u>. **Go to Question 11**

8 Proposed area for part renewal – for mineral groups 1-8 and 10-11 only

Complete this question if you are applying to renew **part** of the licence area. You **do not** need to provide a standard map.

For groups 1-8, 10 or 11 minerals, identify the name of the 1:1,000,000 map sheet (e.g. Sydney), the block number and unit references as described in <u>Schedule 4</u> of the *Mining Regulation 2016*.

Use **Option A** (the free text field) or **Option B** (the table) below to identify the proposed exploration area.

	Option A: Ide applying for.	entify the	e map sheet, block number, unit and t	total number of units you a	are
E.g. 8	Sydney, 2222, abo	dxyz tota	al units=7		
					_
	Option B: En	ter data	in the table, as shown in the example	e below.	
	Name of	ter data	in the table, as shown in the example Unit letter/s applied for (list from a to z except 'I')	e below. Total units per block	
		Block	Unit letter's applied for (list from a to z except 'l')	Total units per block 7	
	Name of map sheet	Block number	Unit letter/s applied for (list from a to z except 'l')	Total units	

Name of map sheet	Block number	Unit letter/s applied for (list from a to z except 'i')	Total units per block
Total numb	er of units a	applied for	

9 Proposed area for part renewal – for mineral group 9 only (coal)

9.1 Standard map for mineral group 9 (coal)

Provide a standard map, as described in <u>Clause 9</u> of the *Mining Regulation 2016*, which shows the alignment of the proposed licence boundaries relative to the Map Grid of Australia, showing co-ordinates of all the points where there is a change in direction of the boundaries of the land.

Indicate whether you have inserted your map in the field below or attached it separately.

\boxtimes	I have att	ached a standa	rd map.				
	I have ins	erted my stand	ard map below.				
0.2	Co. 01	dinatas of th	ne proposed exp	loration	2102		
9.2			parate document in				
			ordinates to this ap		illat.		
\boxtimes	i nave a	allached the co					
Tota	l area	9500	☐ m²	🛚 ha	☐ km²		
Surfa	ace area	9500	☐ m²	🛚 ha	☐ km²	à	
9.3	Denth	of surface (exception in me	tres			
_	-		d soil below the surfa		oplied for		
mak	cate the area	a UI SUIIACE AIII	_ soil below the sum	acc not ap	phica for.		
	Whole area		metres				
	Part (must b	e shown on the	map)				
	Various part	s (must be show	n on the map)				
\boxtimes	Nil						

9.4 Depth restriction sought

Indicate the depth to which you require the licence to extend. Note that for group 9 the maximum depth that any licence will be granted is 900 metres below zero Australian Height Datum.

	of Planning and Environment orenew an exploration licence
Whole are	ea 900 metres
Part (mus	t be shown on the map)
] Various pa	arts (must be shown on the map)
] Nil	
0 Pro	posed area for part renewal of the licence area –
for	mineral group 9A (oil shale)
0.1 Star	ndard map for mineral group 9A (oil shale)
ne alignment	ndard map, as described in <u>Clause 9</u> of the <i>Mining Regulation 2016</i> , which shows of the proposed licence boundaries relative to the Map Grid of Australia, showing of all the points where there is a change in direction of the boundaries of the land.
ndicate wheth	her you have attached your map or inserted it into the field below.
☐ I hav	ve attached a standard map.
☐ I hav	ve inserted my standard map below.
	ordinates of the proposed exploration area co-ordinates below or attach the co-ordinates as a separate document in a CSV
	ve attached the co-ordinates to this application
	ve entered the co-ordinates in the field below.
] I hav	
I hav	☐ m² ☐ ha ☐ km²

10.3 Depth of surface exception in metres
Indicate the area of surface and soil below the surface not applied for.
☐ Whole area metres
☐ Part (must be shown on the map)
☐ Various parts (must be shown on the map)
□ Nil
10.4 Depth restriction sought
Indicate the depth to which you require the licence to extend.
☐ Whole area metres
☐ Part (must be shown on the map)
☐ Various parts (must be shown on the map)
□ Nil
11 Renewal justification statement
Complete and attach a <u>renewal justification statement</u> , as described in <u>Clause 18(1)I</u> of the <u>Mining Regulation 2016</u> . Before completing the template, read the <u>Guide to completing a renewal justification statement</u> . Check the box below to indicate you have attached it to this application.
Yes, I have attached a renewal justification statement.
12 Prospecting title work program
Complete and attach a <u>Prospecting title work program</u> (note that it is mandatory to use this for available on the Division of Resources and Geoscience website). Before completing the form, read the <u>Exploration guideline</u> : work programs for prospecting titles. Check the box below to indicate you have attached it to this application.
Yes, I have attached a prospecting title work program using the approved form.

13 Technical advice

Nominate an exploration technical manager who will be responsible for supervising prospecting operations and (geoscientific) exploration reporting.

The person is expected to be a geoscientist or mining engineer with relevant experience in exploration.

You must provide the person's contact details and confirmation of their acceptance of the role. Note that this does not make the person liable for any other matters relating to this application.

You ca	n attach the contact details and acceptance as a letter or enter the information below.
	I have attached documentation with the exploration technical manager details and acceptance of the role.
OR	
\boxtimes	I have entered the exploration technical manager details and authorisation below.
	Contact details
	Name
	Position
	Company
	Phone
	Email
	Professional associations: Provide the name and member number of any relevant professional associations (e.g. AusIMM, AIG) to which the technical manager belongs, or list relevant qualifications and experience.
	Signature: Provide the signature of the nominated exploration technical manager to support
	their acceptance of the role.

Statements of corporate compliance, environmental 14 performance history and financial capability

The applicant must provide Statements of corporate compliance, environmental performance history and financial capability. Complete and attach the Statements template and check the box below to indicate you have attached it to this application.

Yes, I have attached the statements of corporate compliance, environmental performance history and financial capability.

15 Activity approvals

15.1 Approved Category 2, Category 3 or 'Assessable prospecting operations'

Any prospecting operations which are **not** defined as 'Exempt Development' under <u>Clause 10</u> of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 require approval before they commence. Refer to the guideline <u>ESG5</u>: <u>Assessment requirements for exploration activities</u> for more information on activities.

15.1.1	Are there any Category 2, Category 3 or 'Assessable prospecting operations' that
	have been approved and are continuing into the new term of the authorisation?

	approved and are continuing in numbers below).	ategory 3 or 'Assessable prospecting operations' that have been ato the new term of the authorisation. (Enter the activity approval
	Approved activity numbers	
Ø	No	

16 Rehabilitation cost estimate

All authority holders must provide an estimate of rehabilitation costs. This estimate will be considered by the department when determining the <u>security deposit</u> amount.

Before answering the following questions, read the Rehabilitation cost estimate guidelines.

16.1 What is the total rehabilitation cost estimate across the entire authorisation?

The estimate should cover the rehabilitation for **all** prospecting operations.

Total rehabilitation cost estimate

\$ 13	30,	69	5.	7	8
-------	-----	----	----	---	---

The department is responsible for ensuring that the people of NSW do not incur a financial liability as a result of coal, mineral and petroleum exploration and production activities. All authority holders engaged in these activities are, therefore, required to lodge a security deposit.

The security deposit must cover the Government's full costs for rehabilitation in the event of default by the authority holder.

The rehabilitation cost estimate is an estimate of all rehabilitation liabilities which currently exist on the authority, including approved prospecting operations and those prospecting operations defined as exempt development.

16.1.1 What method have you used to calculate the rehabilitation cost estimate? Attach your cost calculation to this application.

Department's rehabilitation cost calculation tool.

	cation to renew an exploration I		
	Other – attach your cald you have used.	culations or use the f	ield below to describe the tool or cost guide
16.1.2	What approvals/plans	have you based th	e rehabilitation cost estimate on?
Provide	date of approval letter(s) or reference where	possible
	Exploration Activity App	provals	
	EL 7223 Shenhua Water Note: Activity Approvals a yet been granted.	mark for the activities propos	sed during the proposed renewal term have not
	Mining Project Approva	l/Development Cons	ent
П	Mining Operations Plan	/Rehabilitation Mana	gement Plan
	Willing Operations Flam		
applicat		maximum disturband Note: under section Guidelines, the Depa 'snapshot' of all curre or liabilities for the til maximum disturband following the comple	ce 'snapshot' at the end of 2017 3.2 of ESG1: Rehabilitation Cost Estimate artment will accept a RCE calculated as a ent liability for the title at the date of application, the as a snapshot at a time in the future. The ce for the EL renewal will occur at the end of 2017 tion of 31 boreholes.
Period o	covered by the Estimation	insert date	Insert date
16.3	What security is c	urrently held by	the department?
Current	security held by the depart	ment	
\$ 250,0	000		
16.4	Does this rehabilit		ate propose a reduced risation?
	ehabilitation has been co on in the security deposit		lity has been reduced, you may claim for a
	Yes. Ensure you have	completed Question	17.
\boxtimes	No.		

17 Completion of rehabilitation

17.1 Has rehabilitation been completed and/or deemed satisfactory?

Rehabilitation of prospecting operations is deemed 'satisfactory' when:

	a <u>Form ESF2 – Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate</u> is submitted to the department by the authority holder, and
• t	the department has formally notified the authority holder that the rehabilitation is satisfactory.
	Has rehabilitation (including any progressive/partial rehabilitation) already been completed and deemed satisfactory by the department?
	Provide details of correspondence including department references below
	Has rehabilitation been completed and you would like to seek formal confirmation from the department that rehabilitation has been successful, without seeking a reduction in the security deposit?
	If yes , ensure you have completed and attached <u>Form ESF2 – Rehabilitation Completion</u> and/or Review of Rehabilitation Cost <u>Estimate</u> to this application.
	Has rehabilitation been completed and you would like to seek formal confirmation from the department that rehabilitation has been successful, and you are seeking a reduction in the security deposit?
	If yes , ensure you have completed and <u>Form ESF2 – Rehabilitation Completion and/or</u> <u>Review of Rehabilitation Cost Estimate</u> to this application.
□ 18	Review of Rehabilitation Cost Estimate to this application. Rehabilitation has not been completed. Environmental and rehabilitation reporting
Dep Reh an E Reh auth	Review of Rehabilitation Cost Estimate to this application. Rehabilitation has not been completed.
Dep Reh an E Reh auth	Review of Rehabilitation Cost Estimate to this application. Rehabilitation has not been completed. Environmental and rehabilitation reporting bending on the authority conditions, you may need to submit an Environmental and habilitation Compliance Report prepared in accordance with ESG4: Guideline for preparing Environmental and Rehabilitation Compliance Report for exploration. An 'Environmental and habilitation Compliance Report to using varying terms depending upon the mority conditions and includes: Environmental Management Report; Environmental and habilitation Report; Compliance and Rehabilitation Report; Environmental and Rehabilitation mapliance Report.
Dep Reh an E Reh auth Reh Con	Review of Rehabilitation Cost Estimate to this application. Rehabilitation has not been completed. Environmental and rehabilitation reporting pending on the authority conditions, you may need to submit an Environmental and abilitation Compliance Report prepared in accordance with ESG4: Guideline for preparing Environmental and Rehabilitation Compliance Report for exploration. An 'Environmental and abilitation Compliance Report' is referred to using varying terms depending upon the nority conditions and includes: Environmental Management Report; Environmental and abilitation Report; Compliance and Rehabilitation Report; Environmental and Rehabilitation impliance Report. 1 Do the authority conditions require an Environmental and

19 Fee payment

Payment, proof of payment or details that allow the payment to be made must accompany this application form. Refer to <u>Schedule 9</u> of the *Mining Regulation 2016* for a list of legislated fees.

Fees and fee calculation

- The application fee amount is \$2,000.
- The area fee is \$12.50 per unit per year for the first group; \$6.25 per unit per year for additional groups; or \$2.00 per hectare or part hectare per year for group 9 and 9A. Note that group 9 was split into two groups on 18 December 2015. Group 9 includes coal only and group 9A includes oil shale only. If you are renewing an exploration licence for group 9 you also retain the rights to explore for group 9A, however you only need to pay the area fee for one group.

Below are sample calculations.

EXAMPLE 1

The area is 5 units and the term is 6 years. Application fee \$2,000.00 Unit fee: 5 units @ \$12.50 each x 6 years 375.00 Additional unit fee: 5 units @ \$6.25 x 6 years \$187.50 Total fee \$2,562.50

You have applied for two groups e.g. Groups 1 and 2.

EXAMPLE 2

You have applied for one group only – Group 9A. The area is 2.3 hectares and the term is 6 years.

 Application fee
 \$2,000.00

 Area fee: 2.4 hectares* @ \$2.00 each x 6 years
 \$36.00

 Total fee
 \$2,036.00

Select your payment method

Account name: DPT Planning & Environment – Resources & Energy BSB: 032001 Account number: 180732 Reference: REN [authority identifier and number] (e.g. REN EL 1234) Direct deposits will require a copy of the deposit receipt issued by the banking authority as evidence to accompany the application form. Cheque made payable to 'DPT Planning & Environment – Resources & Energy' Credit card (enter details below) Payment amount \$ Type of card Select card type Cardholder's name: Card number: Expiry date (mm/yy): mm / yy	\sqcup	Direct deposit	
Reference: REN [authority identifier and number] (e.g. REN EL 1234) Direct deposits will require a copy of the deposit receipt issued by the banking authority as evidence to accompany the application form. Cheque made payable to 'DPT Planning & Environment – Resources & Energy' Credit card (enter details below) Payment amount \$ Type of card Select card type Cardholder's name: Card number:		BSB:	032001
evidence to accompany the application form. Cheque made payable to 'DPT Planning & Environment – Resources & Energy' Credit card (enter details below) Payment amount Type of card Select card type Cardholder's name: Card number:			
Credit card (enter details below) Payment amount \$ Type of card Select card type Cardholder's name: Card number:			
Payment amount \$ Type of card Select card type Cardholder's name: Card number:		Cheque made payal	ole to 'DPT Planning & Environment – Resources & Energy'
Type of card Select card type Cardholder's name: Card number:		Credit card (enter d	etails below)
Cardholder's name: Card number:		Payment amount	\$
Card number:		Type of card	Select card type
		Cardholder's name	
Expiry date (mm/yy): mm / yy		Card number:	
		Expiry date (mm/yy): mm / yy

^{*}Note figure is rounded up

20 Checklist of items to be included with this application

Item			Reference
Written co	onfirmation from licence holder not seeking renewal (if applicable)		Question 4
For group (if applica	s 9 or 9A applications only – co-ordinates of the exploration area ble)	\boxtimes	Question 9 Question 10
	os 9 or 9A applications only – a standard map of the proposed on area (if applicable)	\boxtimes	Question 9 Question 10
Renewal	justification statement	\boxtimes	Question 11
Prospecti	ng title work program	\boxtimes	Question 12
Technica	advice support documentation		Question 13
	its of corporate compliance, environmental performance history cial capability	\boxtimes	Question 14
	ation cost estimate (attach calculations to evidence how the tion cost estimate is derived)	\boxtimes	Question 16
	F2 – Rehabilitation Completion and/or Review of Rehabilitation mate (if applicable)	\boxtimes	Question 17
Environm	ental and Rehabilitation Compliance Report (if applicable)	\boxtimes	Question 18
For paym	nents made by direct deposit – proof of payment		Question 19
For agen previous	ts only – evidence of appointment as agent, if this has not been y supplied to the department		Question 21
20.1	Have you lodged all the required information with	h this fo	orm?
\boxtimes	Yes		
	No. I will provide outstanding information within 10 business dapplication.	lays of lo	dging this

21 Declaration

This form should be signed by the applicant/s (in the case of a company a duly authorised officer) or an agent authorised to act on behalf of the applicant/s.

I/We declare that the information provided in this application is true and correct. I/We understand that under Part 5A of the Crimes Act 1900, knowingly giving false or misleading information is a serious offence; and under Section 378C of the Mining Act 1992 any person who provides information that the person knows to be false or misleading is guilty of an offence, for which they may be subject to prosecution.

Applicant/s

Name Position/title	
Date	29/6/2017
Signature	
Name	
Position/title	
Date	
Signature	
Name	7
Position/title	
Date	
Signature	

Agent authorised to act for this applicant/s

Evidence of appointment is required if this has not been previously supplied to the department.

OR

Name	
Position/title	
Date	
Signature	

Office use only

Application receive	ed:		
Time:		Date:	
Application fee am	ount: \$2000 (per authority)		
Fee amount	\$	☐ NREM3095-1 Coal or Oil Shale ☐ NREM3096-3 Minerals	GL: Z4014
	area Fee is \$12.50/unit/year foart hectare for group 9 or 9	or the first group, \$6.25/unit/year for add	ditional groups
Area fee amount	\$	☐ FINM46-1 Coal or Oil Shale ☐ FINM46-3 Minerals	GL: Z4010
Total amount	\$	Receipt number:	
Received unde	er delegation from the	e Secretary	
Name			
Signature			

For credit cards

Following confirmation of payment, remove the first eight (8) digits of the credit card number from this form. Ensure that any saved copy does not include full credit card details.

Document control

Authorised by: Director Titles Services

RM8 Reference: PUB16/101 INT16/16102 (V15/5289#12)

Amendment schedule

Date	Version#	Amendment
01 March 2016	4.0	Legislation update, new template
06 March 2016	4.1	Hyperlinks updated, minor edits
31 March 2016	4.2	Minor edits
10 June 2016	4.3	Added note to 'fee payment' re group 9/9A
02 December 2016	4.4	Amendments to address the requirements for the statements of corporate compliance, environmental performance history and financial capability, rehabilitation and coordinates
17 March 2017	4.5	Minor formatting fixes
1 April 2017	4.6	Update bank details, project codes, dept name, map format (csv only)

26 April 2017

4.7 Update Division name, minor administrative changes.



DOCUMENT 8

Email providing 5-year work program

_

Objection to release of whole document

Chris Berry

From:

Sent:

Subject:

Friday, 30 June 2017 8:48 AM

To:

adrian delany

Cc:

Re: Re: Shenhua Watermark Coal Pty Ltd - Application to Renew an Exploration

Licence (final version)

Attachments:

f) Question 12_Mineral-Prospecting-Title-Work-Program-Form - EL7223pdf.pdf

Hi Adrian,

The Five year work program attached as you required.

The applied five period of the title is from 23 February 2016. From this July there is only 4 years left (3.5 year) for Shenhua to conduct its exploration activities so there is no Year 5 for Shenhua to execute its prospecting activities.

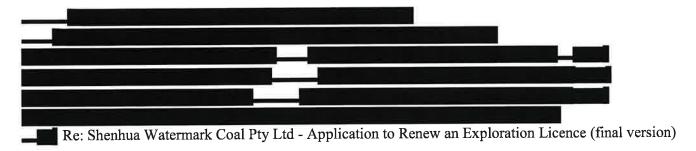
We change the work program by shift some of activites of Year 2 to the Year 5 and that fully consistent with the 5 year term we applied.

Please do not hesitate to contact us if you have any questions.



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All

The attached f) Question 12_Mineral-Prospecting-Title-Work-Program-Form - EL7223pdf document has been revised following comments from DRG, but I note that no work program has been provided for year 5. Given Shenhua is seeking a 5 year renewal a work program consistent with the term is required.

Regards

Adrian Delany

Manager Strategic Services Division of Resources and Mining 516 High Street Maitland NSW| 2320 T 02 4931 6437 M 0438 175 240





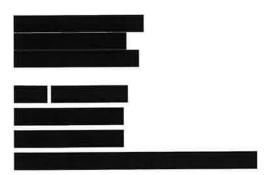
On 29 June 2017 at 17:12, wrote:

Hi there,

Please find attached final version of Shenhua Watermark Coal Pty Ltd's Application to Renew an Exploration Licence.

Please do not hesitate to contact us if you have any questions.

Kind regards,



368-370 Conadilly Street Gunnedah NSW, 2380 Australia www.shenhuaaustralia.com

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.

DOCUMENT 10

Email requesting 5-year work program

Objection to release of whole document

Chris Berry

From: Adrian Delany

Sent: Thursday, 29 June 2017 9:54 PM

To: Cc:

Titles Services;

Subject:

Re: Shenhua Watermark Coal Pty Ltd - Application to Renew an Exploration Licence

(final version)

Attachments:

f) Question 12_Mineral-Prospecting-Title-Work-Program-Form - EL7223pdf.pdf

All

The attached f) Question 12_Mineral-Prospecting-Title-Work-Program-Form - EL7223pdf document has been revised following comments from DRG, but I note that no work program has been provided for year 5. Given Shenhua is seeking a 5 year renewal a work program consistent with the term is required.

Regards

Adrian Delany

Manager Strategic Services Division of Resources and Mining 516 High Street Maitland NSW| 2320 T 02 4931 6437 M 0438 175 240





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DOCUMENT 14

Rehabilitation Cost Estimation Tool RCE Tool June 2017 – EL7223

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Further redactions required



The Mining Act 1992 and the Petroleum (Onshore) Act 1991 allow the Minister for Resources (or delegate) to impose and vary a security deposit condition on authorisations or titles granted under these Acts. The security deposit is required for the fulfilment of obligations under the authorisation or title (hereon in referred to as an authority), including those related to rehabilitation, and obligations that may arise in the future. Authority holders are required to submit a Rehabilitation Cost Estimate (RCE) whenever a potential change in rehabilitation liability occurs and at other key points throughout the tenure of an authority. The RCE is used by the NSW Department of Planning and Environment, Division of Resources and Geoscience (DRG) to assist in determining the amount of the security deposit required for an authority.

The objective of the Rehabilitation Cost Estimation Tool (the RCE Tool) is to provide exploration, mining and petroleum operators with guidance on calculating an appropriate RCE for their operations by assisting in the assessment and quantification of rehabilitation risks and liabilities pursuant to the *Mining Act 1992 and Petroleum (Onshore) Act 1991*.

Please Note: The RCE Tool does not apply to the sealing of petroleum wells associated with exploration and production activities under the Petroleum (Onshore) Act 1991. Petroleum title holders can use the RCE Tool for guidance on calculating an appropriate RCE for disturbance associated with their activities. However, it is the expectation that a separate estimate is submitted for the sealing of petroleum wells, with the RCE prepared by a suitably qualified expert in consideration of the scale, nature, risks and age associated with petroleum wells specific to the petroleum title. For petroleum production use the Open Cut Button. For petroleum exploration use the Exploration

Prior to calculating a RCE, authority holders using the RCE Tool should refer to the *Rehabilitation Cost Estimate Tool Handbook* which provides guidance information about, and step by step instructions on how to use, the RCE Tool. The Handbook is available at the following location on the Department's website: http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/rules-and-forms/pgf

Calculating a RCE

The framework of the RCE Tool has been developed in accordance with a tiered risk-based approach to calculating rehabilitation costs whereby the outcome of the estimation will be based on the nature, size, scale and complexity of the operation. While the authority holder has the opportunity to nominate unit rates* which are not the same as those in the RCE Tool, any other unit rate proposed by the authority holder must be based on a third party cost as it is assumed that if the authority holder defaults on their responsibility to rehabilitate the mine or exploration operation(s), a contractor will be engaged by the Government to carry out the required rehabilitation works.

Select Type of Mining/Exploration Operations from Buttons Below

By selecting the relevant type of mining/petroleum/exploration operation (below), followed by the ENTER button, the worksheet

*Note: DRG may regularly make changes and updates to the spreadsheet as necessary. All authorisation holders are encouraged to use the most recent version of the spreadsheet, available on the DRG website.

Site Registra	LIVII		Date	June	20
Complete the following	fields prior to calculating the security deposit.				
Exploration Authorisation Number	EL 7223				
Exploration Authorisation Holder Name	Shenua Watermark Coal Pty Ltd				
Expiry of Authorisation	22/2/2016			y. In	1 7
Current Security	\$250,000	Date of last Se	ecurity Deposit review	N-V	1/02
RCE Contact		The Telephone		V	
Position	Environment Manager - Shenhua Watermark Coa	I Pty Ltd	1 12 22	1,000	
Address	368-370 Conadilly Street Günnedah NSW, 2380				
Phone		Email Email		İ	
Site Descript The following site spec	ion	ound information in the conf	text of calculating the	security dec	oosit.
Summary of Explor			•	,	
Authorisation area (ha):	:	Hectares	19,500		
Exploration Activity (As references for activities to the satisfaction* of the	ssessable Prospecting Operations) Approval swhich have not been rehabilitated ne Department.	1 09/3485 App 2 09/3485-2 E 3 11/2521 App	xtension of §		
		4 OUT12/1323	32 Approval		
*Rehabilitation of prosper	nting operations is deemed selistactory when				



Exploration Summary Rehabilitation Cost Estimation

ote: Sections of this page a	re automatically filled in from the regist	tration page	
xploration	EL 7223		
uthorisation Number			
kploration	Shenua Watermark Coal Pty Ltd		
uthorisation Holder	Sherida Watermark Oddir ty Exc		
ame			
expiry of Authorisation	22/02/2016		
Current Security	\$250,000	Date of Last Security Deposit F	Review 1/02/2016
RCE Contact			
osition			
ddress			
Phone		Email	
	Domain		Security Deposit
xploration 1			\$113,649
unia-ration O			
Exploration 3			
xploration 3	Sundry Items)	100	\$113,648.5i
xploration 3 ubtotal (Domains and Sontingency		10%	\$113,648.5(\$11,364.8(\$5,682.4
xploration 3 ubtotal (Domains and sontingency post Closure Environmen	tal Monitoring	5%	\$11,364.89 \$5,682.41
xploration 3 ubtotal (Domains and sontingency post Closure Environmen		5%	\$11,364.8
xploration 3 ubtotal (Domains and strongency ost Closure Environmen otal Security Depo	tal Monitoring	5%	\$11,364.84 \$5,682.43 \$130,695.7 8
ubtotal (Domains and sontingency ost Closure Environmen otal Security Depo	tal Monitoring sit for the Project (excl. of	f GST) of rehabilitation security deposits requi	\$11,364.84 \$5,682.45 \$130,695.76 red by the Department.
xploration 3 ubtotal (Domains and sontingency ost Closure Environmen otal Security Depo ote: GST is not included i	tal Monitoring sit for the Project (excl. of in the above calculation or as part of en made to unit prices within this spre	f GST) of rehabilitation security deposits required the seadsheet. (Attach a separate sheet provice)	\$11,364.8t \$5,682.4: \$130,695.76 red by the Department. ling details of changes).
xploration 3 subtotal (Domains and sontingency rost Closure Environmen otal Security Depo ote: GST is not included i	tal Monitoring sit for the Project (excl. of in the above calculation or as part of en made to unit prices within this spre	f GST) of rehabilitation security deposits requi	\$11,364.8t \$5,682.4: \$130,695.76 red by the Department. ling details of changes).
xploration 3 subtotal (Domains and strontingency rost Closure Environmen otal Security Depo rote: GST is not included in the latest and the	tal Monitoring sit for the Project (excl. of in the above calculation or as part of en made to unit prices within this spre	f GST) of rehabilitation security deposits requive adsheet. (Attach a separate sheet provides are to be printed and attached as an	\$11,364.8t \$5,682.4: \$130,695.76 red by the Department. ling details of changes).
xploration 3 subtotal (Domains and strontingency rost Closure Environmen otal Security Depo ote: GST is not included in Alterations have been his Registration Form, Suthis security calculation has	tal Monitoring sit for the Project (excl. of in the above calculation or as part of en made to unit prices within this spre mmary Report and calculation page been estimated using the best available	f GST) of rehabilitation security deposits requive adsheet. (Attach a separate sheet provides are to be printed and attached as an	\$11,364.8t \$5,682.4: \$130,695.76 red by the Department. ling details of changes). appendix to the RCE.
Subtotal (Domains and Scontingency Post Closure Environmen Fotal Security Depo Lote: GST is not included i Alterations have been a Registration Form, Su This security calculation has	tal Monitoring sit for the Project (excl. of in the above calculation or as part of en made to unit prices within this spre mmary Report and calculation page been estimated using the best available	f GST) of rehabilitation security deposits required adsheet. (Attach a separate sheet provides are to be printed and attached as an alle information at the time.	\$11,364.8t \$5,682.4: \$130,695.76 red by the Department. ling details of changes). appendix to the RCE.
Exploration 3 Subtotal (Domains and strongency Post Closure Environmen Fotal Security Depo Lote: GST is not included i Alterations have been in Registration Form, Such is a true and accurate reflection in the security calculation has a size a true and accurate reflection in the security calculation is a true and accurate reflection.	tal Monitoring Sit for the Project (excl. of in the above calculation or as part of the made to unit prices within this spreammary Report and calculation page been estimated using the best available ction of the total rehabilitation liability has been estimated.	f GST) of rehabilitation security deposits required adsheet. (Attach a separate sheet provides are to be printed and attached as an alle information at the time.	\$11,364.84 \$5,682.45 \$130,695.76 red by the Department. ling details of changes). appendix to the RCE. sploration authorisation/s concerned.
Exploration 3 Subtotal (Domains and security Deport Closure Environment Fotal Security Deport Alterations have been a Registration Form, Such as a true and accurate reflections and security calculation has a true and accurate reflections.	tal Monitoring Sit for the Project (excl. of in the above calculation or as part of the made to unit prices within this spreammary Report and calculation page been estimated using the best available ction of the total rehabilitation liability has been estimated.	f GST) of rehabilitation security deposits required adsheet. (Attach a separate sheet provides are to be printed and attached as an alle information at the time.	\$11,364.8t \$5,682.4: \$130,695.76 red by the Department. ling details of changes). appendix to the RCE.
Exploration 3 Subtotal (Domains and strongency Post Closure Environmen Fotal Security Depo Lote: GST is not included i Alterations have been in Registration Form, Such is a true and accurate reflection in the security calculation has a size a true and accurate reflection in the security calculation is a true and accurate reflection.	tal Monitoring Sit for the Project (excl. of in the above calculation or as part of the made to unit prices within this spreammary Report and calculation page been estimated using the best available ction of the total rehabilitation liability has been estimated.	f GST) of rehabilitation security deposits required adsheet. (Attach a separate sheet provides are to be printed and attached as an alle information at the time.	\$11,364.84 \$5,682.45 \$130,695.76 red by the Department. ling details of changes). appendix to the RCE. sploration authorisation/s concerned.
Note: GST is not included i Alterations have be This Registration Form, Su This security calculation has	tal Monitoring Sit for the Project (excl. of in the above calculation or as part of the made to unit prices within this spreammary Report and calculation page been estimated using the best available ction of the total rehabilitation liability has been estimated.	f GST) of rehabilitation security deposits required adsheet. (Attach a separate sheet provides are to be printed and attached as an alle information at the time.	\$11,364.84 \$5,682.45 \$130,695.76 red by the Department. ling details of changes). appendix to the RCE. sploration authorisation/s concerned.
wbtotal (Domains and sontingency ost Closure Environmen otal Security Depo ote: GST is not included i Alterations have be his Registration Form, Su his security calculation has is a true and accurate reflectation Repres	tal Monitoring Sit for the Project (excl. of in the above calculation or as part of the made to unit prices within this spreammary Report and calculation page been estimated using the best available ction of the total rehabilitation liability has been estimated.	of rehabilitation security deposits required adsheet. (Attach a separate sheet provides are to be printed and attached as an all information at the time, held by the authorisation holder/s for the expense of the second	\$11,364.84 \$5,682.45 \$130,695.76 red by the Department. ling details of changes). appendix to the RCE. sploration authorisation/s concerned.

\$113,649

Additional Assumptions: Record any relevant assumptions to this domain below.

Domain 1a: All Rehabilitation Activities

Assumes maximum disturbance at the end of 2017 of 1.875 hectares (following the completion of 50 boreholes for a total metreage of 3325 metres)		
Assumes the only ground disturbance will be associated with drilling activities (i.e. no additional formed accesses, hardslands, etc.)	Total Landform Establishment:	1,68
Disjurbance area per borehole assumed to be 0 0375ha (375m2)	Total Growth Media Development:	
Section in the polytonia and p	Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Aternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Termination of Services and Demolition Works	Oscorrect and terminate services at remite areas (i.e. pump stallons, remote workshops, sewage treatment plant etc.)	N		allow	\$6,500				Used for infrastructure remote from primary consection. Can also be used for small mines / quartes that not have dedicated supplies from supply authority.
	Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the	N		km	\$15,000				Applies to power lines on stoble, concrete or sim onles
	erles - does not include the removal of substations Demolish and/or remove substations (assumes they are in a closed building). Dispose of waste material on-	N		m2	\$600.00				Simple structure to demalish. Assumes single to building and segregation of contents for scrap at
	Demoish and remove switchyard Dispose of waste	N		m2	\$56.00				applicable includes demolition and removal of all switchges and transformers etc. and segregation of confer
	material on-site/locally Demoish and remove demountable structures on concrete stumps. Assumes not being re-used	N		m2	\$40.00				for scrap as applicable Chib hists, temporary offices and other 'non permanent' structures. Does not include transp
	Demoish and remove small buildings/tanks (airmin buildings, single story accommodation etc) and	N		m2	\$65.00				regional disposal facility or equivalent Simple structure to demolish, assumes no great than 2 stones high. Does not include transport to
	disposal on-site/locally Demolish and remove light industrial buildings and disposal on-site/locally	N		m2/floor	\$115.00				regional disposal facility or equivalent Needs to be calculated per foor/fevel (Assume floor/fevel = 3-4 m). Ones not include transport if
	Remove small underground pipe and disposal on- site/locally	N		m	\$25.00				regional disposal facility or equivalent For example: 300 mm pipes - 0.5 m deep, does include transport to regional disposal facility or
	Remove medium underground pipe and disposal on- site/locally	N		m	\$60.00				For example, 500 mm pipes - 1 m deep, does r mediate transport to regional disposal facility or requivalent
	Remove large underground pipe and disposal on-	N		m	\$165.00				For example: 1 m pipes - 2 m deep
	Remove above ground pipe (supported) and disposal on-site/locally	N		m	\$12,00				~300 mm pipes and assumes pipes are in close proximity to infrastructure areas. Does not inclu- transport to regional disposal facility or equivale
	on-site/locally Remove surface pipelines (unsupported) and disposa on-site/locally	N		m	\$16.00				-300 mm pipes and assumes pipes are used to water transfer between pts (or similar) and rem located. Does not include transport to regional disposal facility or equivalent Scale bourner and stabilised material. General
	Remove bitumen (car park and access roads) and dispose on-site/locally	N		m2	\$10,00				Scale bitumen and stabilised material. General hautage rates will be \$0.60 - \$1.20 / km, depen on fruck fleet, loaders etc. For off-site disposal alternate rate option and add \$0.90 / km for transport.
	Remove concrete pads & footings (<300 mm thickness) and disposal on-site/locally	N		m2	\$37,00				Breaking up sale and disposal or for conversion aggregate. Generally haulage rates will be \$0.61 \$1.20 / km, depending on truck fleet, badders et For off-site disposal use alternate rate option an add \$0.90 / km for transport. Does not include naulage of materials - assume
	Crush concrete to make road aggregate - 75 mm	N		tonne	\$17.00				crushing plant is readily available
	Crush concrete to make road aggregate - 50 mm	N		tonne	\$20,00				Does not include houlage of materials - assume crushing plant is readily available. Does not include heulage of materials - assume
	Crush concrete to make road aggregate - 30 mm	N		tonne	\$22.00				crushing plant is readily available
	Remove fence (cyclonelwire fence) and disposal on- site/locally	N		m	\$20.00				Roll up fence and remove posts.
Contaminated Materials		Terminat	ion of Servic	es and D	emolition We	orks Subtotal	\$0		The preliminary investigation would include at
	Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are dustered. If there are multiple cluster areas on site, multiple studies may be required.	N		Cluster	\$16,000				Measure (NEPM) Phase 1 sasessment (EP A. Socian 399 (2) for similar approved and recognised assessment method. A cluster may include: - Mera infrastructuria (i. e., "self / chemical store, workshop, vehicle wasth-down, severage treatme etc.) - Processing plants (i.e., ore and product stora mine waste storage and disposal, rail load-out - Remota pot-dop facilities (ii. y vehicle re-fulley, sewage treatment, secondary workshop, chem
	Removal and disposal of contaminated water from	N		1	\$0.36				cost for recent sump clean-up from resource
	tanks, bunded areas and sumps Load, cart and dispose of High Level contaminated	_	_	L.					activity - requires specialists to treat Includes load, hauf and dump fees to a licensed
	maleral off site to a licensed landfil. Assumes cartage to a located dardfil. Load, cart and disposal of Low Level contaminated	N		m3	\$700.00				facility. Includes load, haul and dump fees to a licensed
	material off site to a licensed landfil. Add \$50/m3 for cartage to regional landfill.	N		m3	\$200.00			Select Volume Here	facility.
manual land farming (Select Volume from Mobilisation of cement stabilisation plant equipment for hydrocarbon (i.e., PAH, for	Onsite remediation of hydrocarbon contaminated soils manual land farming (Select Volume from List)	N		m3	Select from List				Spreading of contaminated soils on a prepared surface and stimulation of aerobic microbial ac within the soils through aeration and/or the add of miserals, nutrients and moisture to promote aerobic degradation of organic chemicals - time frame of up to 24 months.
	Mobination of cement stabilisation plant and equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment.	N		llem	\$150,000				Required if treatment of hydrocarbon contamin is required to be fast tracked.
	On-site remediation of hydrocarbon contaminated solit using a mobile treatment unit	N		m3	\$165.00				Additional cost as the freatment process is fast tracked Where an assessment/estimation has been ma
	Remove and dispose of asbestos (<750 m2)	N		m2	\$60,00				confirm the volume of asbesios to be removed
	terrore and dispose of aspessos (-roo me)	_							Assumes ASS is treatable via neutralisation and does not require capping and isolation.
	Treatment of known Acid Suitate Soils	N		ha	\$2,580				Descriptional error for existing comme comme business
		N N		m2	\$1.00				Provisional sum for cutting using ripping tyres on-site disposal of the finer.
	Treatment of known Acid Suifate Solis Removal and disposal of plastic liner (i.e. dam, leach	-		m2	\$1.00	rials Subtota	\$0		Provisional sum for cutting using ripping tyres on-site disposal of the finer.
Boreholes	Treatment of known Acid Suifate Solis Removal and disposal of plastic liner (i.e. dam, leach	-	2115	m2	\$1.00	rials Subtota	\$0 \$84,800		Provisional sum for cutting using ripping types on-set disposal of the finer Where multiple boreholds exist, this is the rate the total cumulative depth of all boveholds (e.g., boreholds at 100m depth each in 200m). Assure or matter deling age of ~5150° in of which ~3 30% is for mhabitation which may include as of works (i.e., cut casing and install cap, inata page to facilitate bock-diring; grout preparation, grouting and capping, inshaping / inpping the diag, amelioration / seeding dict.
Boreholes	Treatment of known Acid Sulfate Soils Removal and disposal of plastic liner (i.e. dam, leach ladd, sump etc.) Option 1 Exploration boreholes – rehabilitate boreholes and drift	N	2115	m2 Contan	\$1.00 ninated Mate	rials Subtota			Provisional sum for cutting using roping tyres co-set disposal of the finet Where multiple boreholds exist, this is the rate the total cumulative depth of all boreholds (e.g. boreholds at 100m depth each = 200m). Assur- sor instead and a set of \$150 m of which ~2 30% is for rinhabitation which may include as will where (e.g. cut casing and estatt cap, instal pipe to facilitate boek-filming, grout preparation, grouting and capping, inshaping or piping the de-

				_					Essere and the second
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor works including deep rip and frim Unsealed roads / access tracks / vehicle park-up	N.		ha	\$980.00				D7 Rip at ~\$205 / hr, 12 hr day, ~2 5 ha / day
	areas with windrows and/or small earthen bunds - minor earthworks and deep rip and frim	N		ha	\$1,500				D7 Rip at ~\$205 / hr, 12 hr day, ~1,6 ha / day
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep np and seed (pasture	N		ha	\$3,698				D7 Dozer @ \$205 per hour and Grader @ \$212 hour (50% utilisation) - pasture grass seed
	Unsealed roads / venicle park-up areas - Minor earthworks, final frim and deep rip, amelorate and	N		ha	\$4,486				D7 Dozer @ \$205 per hour and Grader @ \$212 hour (50% utleaston) - tree/shrub seed.
	seed (native tree/shrub/grass) Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds - Minor earthwests, final trim and deep rip, ameliorate and	N		ha	\$3,820				D7 Dozer @ \$205 per hour and Grader @ \$212 hour (50% utilisation) - pasture grass seed.
	sood (pasture grass) Unsealed roads / haur roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor	N		ha	\$4,595				D7 Dozer @ \$205 per hour and Grader @ \$212 hour (50% utilisation) - tree/shrub seed.
	earthworks, final Irim and deep np, ameliorate and reed (native tree/shrub/grass)							Select Haul Distance Here	Tital (30 % diligation) * (180 sili do 360 d
	Remove stabilised material (blue metal, aggregate atc.) from roadways and disposal on-site/locally (Select Haut Distance from list)	9N-∂		m3	Select from List				This item includes the scraping and removal of tryolume of stabilised material from the rised, layde or other surface using an excavator, dozer and grader to enable the establishment of renabilitation.
				R	oads and Tra	cks Subtotal	\$0		D7 Dozer @ \$205 per hour and Grader @ \$212
Earthworks / Structural Works (Landform Establishment)	Minor reshaping and pushing - this may include backfilling coaleans, buck samples, camp areas etc. Shuctural works, benks, waterways - contour parks, strainage channels and other soil conservation.	N		ha ha	\$3,900				hour (50% utilisation) Combination of dozer and excavator work. Smar dozer (D6 or similar) @ ~\$200 per hour plus gra
	measures Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	N		m3	Select from			Select Haul Distance Here	69 \$212 per hour for ~4 hours each per ha This Zern includes the volume of material require backfit using an excivator and scraper to fif the void and enable the establishment of rehabilitatio
	Trim, rock rake & deep rip (includes levelling (N		ha	\$960.00				Grader @ \$212 per hour - ripping in 1 direction
	landscaping and rip in 1 direction) Deep rip hard stand / lay down areas	N		ha	\$360.00				D7 Rip at ~\$205 / hr, 12 hr day, ~2.5 ha / day
ind Preparation and Revegetation	Earthw	orks / Struct	ural Works (I	andforn	n Establishm	ent) Subtotal	\$0	Select Haul Distance Here	
Growth Media Development and Ecosystem Establishment)	Source, carl and spread growth media (Select Haul Distance from List)	N		m3	Select from List			7	This item includes the volume of material required and haul using an excavator, truck and dogerable the establishment of rehabilitation.
	Planting mature trees (>15 cm)	N.		allow	\$20.00				4 m centres.
	Pianling lube slock (<15 cm)	N		allow	\$1,240				4 m centres. Rate can fluctuate nowever trus is a suitable
	Direct seeding / fertiliser (pasture grass species)	N		ha	\$1,240				standard rate Rate can fluctuate nowever this is a suitable
	Direct seeding / fertiliser (tree or native grass species)	N			1.0				standard rate Rate can fluctuate however this is a suitable
	Hydro-seeding with straw mulching and bitumen lack Single application of fertiliser (pasture)	N		m2 ha	\$1.80 \$420.00				standard rate. Assumes 250 kg / ha. These rates have fluctur over the last few years however in light of curre conditions (lower fuel prices; reduced demand
	Single application of fertiliser (trees)	N		ha	\$140.00				this is a suitable standard rure. These rates have fluctuated over the last few y however in light of current conditions (lower fue prices, reduced demand etc) this is a suitable.
	, , , , , , , , , , , , , , , , , , ,								standard rate
	Spoil amelioration (adding time / gypsum etc.)	N		ha	\$890,00				Assumes 2.5 t / he as an average application of Recent experience with agronomy projects.
	growth media amelicration with biosolids Construct no-climb stock fence around renabilitated	N N		ha m	\$1,015				Slandard rate for no-climb stock fencing
	Construct standard stock fence around renabilitated	N N		m	\$4.00				Standard rate for standard stock fencing
	areas Purchase and erect warning signs	N		allow	\$250,00				Compliance with AS 1319-1994 - Safety signs
	Land Preparation and Revegetation (Growth N		nment and F	conveter	n Fatabilahm	enti Subtotal	\$0		the occupational environment - installed every 2
Water Management		N		m3	\$180.00				Rate based on capacity of sump developed for
	Exploration sump decommissioning	N		ms	\$ 180,00				borehole, includes filling of sump. Disposal of non-contaminated sediments remo-
	Water / mud disposal from sump	N		L	\$0.30				from sumo. Provisional sum for earthworks and revegetalk required to rehabilitate dam batters etc suitable
	Clean water dams to be retained after decommissioning – make safe and minor earthworks.	N.		allow	\$2,600			Select Haul Distance Here	re-use by an atternate land-user - D5 Dozer (or similar) & ~\$200 per hour and pastice scans
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	N		m3	Select from List				This item includes the volume of contaminated sediment inquiring removal using an excavator truck and dozer to clean out the dam.
Saintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegelation has been successful	Y	1,155	ha	\$900,00	nent Subtotal	\$0 \$1,049	Assumed disturbance area of 0.0375ha per borehole (31 boreholes proposed during	Rehabitation maintenance might include re- seeding, watering, fertilising, minor re-shaping, erosion control, inspections/audits - does not in
	Existing rehabilitation repair - minor	N		ha	\$1,200			2017)	major repair works Areas requiring minor repair - ritis, minor growt media replacement
	Existing rehabililation repair - moderate	N		ha	\$1,700				Areas requiring moderate repair - rills, significal growth media replacement
	Existing rehabilitation repair - major	N		ha	\$2,600				Areas requiring major repair - rilis, guilles, grov media replacement, some level of additional su water management
	Existing rehabilitation repair - total failure of landform	N		ha	\$40,000	reas Subtotal	\$1,049		Areas that require extensive rehabilitation repaidesign and re-construction of landform.
Maintenance of Other Land	Pest management on buffer lands, non-disturbed, and	N	maintonar	ha ha	\$150.00	- Subjoin	\$1,040		Feral animal baking programs if required and vi materials required to be removed
	rehabilitated areas tand management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	N		ha	6400,00				Undisturbed areas within the least boundary to require land management activities.
			N	allow	Use alternate	and Subtotal	\$0		nem for the redistribution of Aboriginal artefact preservation of European herizage terms or a
Heritage Tems	The restoration and core and maintenance of forms	N							combination of activities
Heritage Tems	The restoration and care and maintenance of terms that have heritage significance	N				ems Subtotal	\$0		The second secon
Heritage flems Sundry flems	hal have hertage significance DRG tender preparation and assessment, stakeholder consultation, risk assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, occument	N N		allow		ems Subtota	\$0		disposal, earthworks, environmental managemeto) manage stakeholders and establish permi
	that have heritage significance DRG tender preparation and assessment, stakeholder consultation, risk assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, document and data management. Additional fees for accessing State, Crown or other			allow	Use alternate rate cell		\$0.		prepare tender documentation (i.e. demolition, disposal, earthworks, environmental managem
	hal have hertage significance DRG tender preparation and assessment, stakeholder consultation, raik assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, document and data management	N			Use alternate rate cell Use alternate rate cell				prepare tender documentation (i.e. demotion, disposal, earthworks, environmental management of manage stakeholders and establish permand compliance requirements for closure. Provisional sure:
	that have heritage significance DRG tender preparation and assessment, stakeholder consultation, risk assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, document and data management. Additional fees for accessing State, Crown or other	N N	4		Use alternate rate cell Use alternate rate cell			Based on 31 boreholes proposed during 2017	prepare lender documentation (il a demoticia, deposita, entreforental management of manage stakeholders and establish permand compliance requirements for closure. Provisional sum: Assumes an exploration program of 10 or fever holes and local confractions within 250 km are evaluable to undertake relabilitation of distribution companies.
Sundry Rems	Inal, have hertage significance DRG tender preparation and assessment, etakeholder consultation, raik assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, occument and data management. Additional fees for accessing State, Crown or other public lahds for rehabilitation/remodation activities.	N N		allow	Use alternate rate cell Use alternate rate cell Use alternate rate cell Sundry it		\$0 \$28,000		prepare lender documentation (il a demotizion, de demotizion, desposale, earthwids, environmental managemento) manage stakeholders and establish permiand compliance requirements for closure. Provisional sum: Assumes an exploration program of 10 or flows holdes and local contractors within 250 km are available to understake rehabilitation of disturbance of contractors are contractors of disturbance of contractors are contractors of disturbances and contractors within 250 km are available to understake rehabilitation of disturbances are contractors of contractors are contractors.
Sundry Rems	Inal, have hertage significance DRG tender preparation and assessment, etakeholder consultation, raik assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, occument and data management. Additional fees for accessing State, Crown or other public lahds for rehabilitation/remodation activities.	N N		allow	Use alternate rate cell Use alternate rate cell Use alternate rate cell Sundry it	ems Subtota	\$0 \$28,000		prepare lender documentation (il e demotisor, desposale, earthwiste, environmental management of manage etakeholders and establish permiand compliance requirements for closure. Provisional sum: Assumes an exploration program of 10 or fever holes and local confractions within 250 km are evaluable to undertake rehabilitation of disturbance and confractions within 250 km are evaluable to undertake rehabilitation of disturbance and confractions within 250 km are evaluable to undertake rehabilitation of disturbance and confractions within 250 km are evaluable to undertake rehabilitation or disturbance and confractions within 250 km are evaluable to undertake rehabilitation or disturbance.

Other 3 <insert></insert>	N	left blank		This eem includes < <to added="" by="" the<br="" tie="">operator>></to>	
		Additional Items Subtotal	\$0		
Total Cost	for all Rehabilitati	on Activities	\$113,649		

Total Cost for all Rehabilitation Activities

¢0

Additional Assumptions: Record any relevant essumptions to this domain below:

Key Rehabilitation Area Data for Domain

Total Landform Establishment:

Total Growth Media Development

Total Ecosystem Establishment:

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Termination of Services and Demolition Works	Disconnect and terminate services at remote areas (i.e. pump stations, remote workshops, sewage treatment plant etc.)	N		allow	\$5,500				Used for infrastructure remote from primary connection. Can also be used for small mines / quarries that do not have dedicated supplies from supply authorities such as chief lattice power lines.
	Removal of lowlinedum voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations	N		km	\$15,000				Applies to power lines on stable, concrete or similar poles
	Demolish and/or remove substations (assumes they are in a closed building). Dispose of waste material on- site/locally	N		m2	\$600,00				Simple structure to demolish. Assumes single story building and segregation of contents for scrap as applicable includes demolish and removal of
	Demolish and remove switchyard. Dispose of waste material on-site/locally	N		m2	\$55,00				all switchgear and transformers etc. and segregation of contents for scrap as applicable
	Demoish and remow demountable structures on concrete stumps. Assumes not being re-used	2		m2	\$40.00				Or b huts, temporary offices and other 'non permanent' structures Does not include transport to regional disposal facility or equivalent
	Demolish and remove small buildings/flanks (admin buildings, single story accommodation etc.) and disposal on-site/locally	N		m2	\$65,00				Simple structure to demolish, assumes no greater than 2 stories high. Does not include transport to regional disposal facility or equivalent
	Demoksh and remove light industrial buildings and disposal on-site/locally	N		m2/floor	\$116,00				Needs to be calculated per l'oor/leve (Assume 1 floor/level = 3-4 m) Does not include transport to regional disposal facility or equivalent
	Remove small underground pipe and disposal on- site/locally	N		m	\$25.00				For example: 300 mm pipes - 0.5 m deep, does not include transport to regional disposal facility or equivalen
	Remove medium underground pipe and disposal on- site/locally	N		m	\$80.00				For example: 500 mm pipes - 1 m deep, does not include transport to regional disposal facility or equivalen
	Remove large underground pipe and disposal on- storiocally	N		m	\$165.00				For example: 1 m pipes - 2 m deep
	Remove above ground pipe (supported) and disposal on-site/locally	N		m	\$12.00				-300 mm pipes and assumes pipes are in close proximity to infrastructure areas. Does not include transport to regional disposal facility or equivalent
	Remove surface pipelines (unsupported) and disposal on-site/focally	N		m	\$15,00				-300 mm pipes and assumes pipes are used for water transfer between pits (or similar) and remotely located Does not include transport to regional disposal facility or equivalen
	Remove bitumen (car park and access roads) and dispose on-site/focally	N		m2	\$10.00				Scalp bitumen and stabilised material. Generally haulage rates with the \$0.60 - \$1.20 / km, depending of truck fleet, loaders etc. For off-site disposal use attempts rate option and add \$0.90 / km for transport.
	Remove concrete pads & footngs (<300 mm thickness) and disposal on-site/focally	N		m2	\$37.00				Breaking up slab and disposal or for conversion to aggregate. Generally haulinge rates will be \$0.60 - \$1,20 / km, depending on truck fleet, loader etc. For off-site disposal use alternate rate option and add \$0.90 km for transport.
	Crush concrete to make road aggregate - 75 mm	N		tonne	\$17.00				Does not include havinge of materials - assumes crushing plant i readily available
	Crush concrete to make road aggregate - 50 mm	N		tonne	\$20,00				Does not include haulage of materials - assumes crushing plant i readily available
	Crush concrete to make road aggregate - 30 mm	N		tonne	\$22.00				Does not include haulage of malanals - assumes crushing plant i readily available
	Remove fence (cyclone/wire fence) and disposal on- uto/locally	N		m	\$20.00	7-0-1-01	**		Roll up fence and remove posts
Contaminated Materials		I ermina	tion of Servi	ces and t	remoinion W	orks Subtotal	\$0		The preliminary investigation would
	Undertake a preliminary site investgaton (Phase 1)								include at minimum a desktop assessment of the area and ste history, incidents, etc. as per the National Environmental Protection (Ste Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) (w)) or smilar approved and recognised
	This accounts for current and historical locations where areas of disturbance are clustered. If there are mulpple cluster areas on site, multiple studies may be required.	N		Cluster	\$15,000				assessment mothod. A cluster may include: - Mine infrastructure (i.e., fuel / chemical stare, workshop, whicle wash-down, sowage treatment etc.) - Processing plants (i.e., ore and product storage, mine waste storag and disposal, ral load out etc.) - Remole pit-top facilities (i.e., vehici re-fuel, sewage treatment, seconda
	Removal and disposal of contaminated water from	N		L	\$0,36				workshop, chemical storage etc.) Cost for recent sump clean-up from resource activity - requires specialis
	lanks, bunded areas and sumps Load, cart and dispose of High Level contaminated material off site to a licensed landfill. Assumes cartage	N		m3	\$700.00				Includes load, haul and dump fees a licensed facility.
	to a trensed tandfill Load, cart and disposal of Low Level contaminated material off size to a licensed landfill Add \$50/m3 for	N		m3	\$200.00				Includes load, haul and dump fees a licensed facility.
	cartage to regional landfill		1	1				Select Volume Here	1

1									
		1	1	1	-/-		i		Spreading of contaminated soils on a prepared surface and stimulation of
			- 1	- 1	1000				serobic microbial sotivity within the
Į.	Onsite remediation of hydrocarbon contaminated soils	N	- 1	m3	Salect from				so its through aeration and/or the add ton of minerals, nutrients and
ľ	manual land farming (Select Volume from List)	1.577	- 1	- 1	List				moisture to promote the aerobic
	i i		1	- 1					degradation of organic chemicals - time frame of up to 24 months
				- 4					
	Mobilisation of coment stabilisation plant and								Required if treatment of hydrocarbon contamination is required to be fast
	equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	N		Item	\$150,000				tracked
1	On-site remediation of hydrocarbon contaminated soils	N		m3	\$165.00				Additional cost as the treatment process is fast tracked
	- using a mobile treatment unit			_					Where an assessment/estimation
	Remove and dispose of asbestos (<750 m2)	N		m2	\$50,00				has been made to confirm the volume of asbestos to be removed
									Assumes ASS is treatable via
	Treatment of known Acid Sulfate Soils	N		ha	\$2,580				neutralisation and does not require capping and isolation
İ	Removal and disposal of plastic liner (i.e., dam, leach				64.00				Provisional sum for cutting using ripping types and on-site disposal of
	pad, sump etc.)	N		m2	\$1,00				the iner
				Contam	inated Materi	als Subtotal	\$0		
Boreholes									Where multiple boreholes exist, this is the rate for the total cumulative
									depth of all boreholes (e.g. two
									boreholes at 100m depth each = 200m). Assumes a per metre drilling
	Option 1			doub					rate of ~\$150 / m of which ~25 -
	Exploration boreholes – rehabilitate boreholes and dnil	N		depth (m)	\$40.00				30% is for rehabilitation which may include a vanety of works (i.e., cul.
	pads as required (all inclusive rate)			3676					casing and install cap, install poly
			1						pipe to facilitate back-filling, grout preparation, grouting and capping,
									reshaping / ripping the drill pad, amelioration / seeding etc.)
									Includes grouting and capping 100
	Option 2 Exploration boreholes – grout and cap open bore holes	N	0	allow	\$7,950				200 m exploration boreholes to mee
	(all inclusive rate)								the requirements of EDG01. May include cutting of casing,
	Option 3								installation of a casing cap, and/or manually backfilling the hole with dri
	Exploration boreholes – backfill open bore holes with	N		allow	\$300				cuttings Does not include reshapin
	cuttings				إعسارا				I ripping the drill pad, amelioration I
				- 72 -	Boreho	les Subtotal	\$0		LINCOLD AND
Roads and Tracks	Unsealed roads / vehicle park-up areas - minor works	N		ha	\$960.00				D7 Rip at ~\$205 / hr, 12 hr day, ~2 he / day
Ostata Settler Control (including deep no and trim. Unsealed roads / access tracks / vehicle park-up areas.								D7 Rip at ~S205 / hr, 12 hr day, -1
	with windrows and/or small earthen bunds - minor	N		ha	\$1,800				ha / day
	earmworks and deep no and firm Unsealed roads / vehicle park-up areas - Minor				10.				D7 Dozer @ \$205 per hour and
	earthworks, final trim and deep rip and seed (pasture	N		ha	\$3,600				Grader @ \$212 per hour (50% utilisation) - pasture grass seed
	grass) Unscaled roads / vehicle park-up areas - Minor								D7 Dozer @ \$205 per hour and
	earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	N		ha	\$4,485				Grader @ \$212 per hour (50% utilisation) - tree-shrub seed
	Unsealed roads / haul roads / vehicle park-up areas								D7 Dozer @ \$205 per hour and
	with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and	N		ha	\$3,820				Grader @ \$212 per hour (50% ublisation) - pasture grass seed
	seed (nasture grass)								
	Unsealed reads / hauf reads / vehicle park-up areas with windrows and/or small earthen bunds – Minor	N		ha	\$4,595				D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50%
	earthworks, final trim and deep rip, ameliorate and	14		ila i	44,400				utilisation) - tree/shrub seed
	seed (native tree/shrub/grass)								
								Select Haul Distance Here	This item includes the scraping and
								Select Haul Distance Here	removal of the volume of stabilised
	Remove stabilised material (blue metal, aggregate etc.)	N		m3	Salect from			Select Haul Distance Here	This item includes the scraping and temoval of the volume of stabilised material from the road, laydown or other surface using an excavator,
		N		m3	Select from List			Select Haul Distance Here	removal of the volume of stabilised material from the road, laydown or other surface using an excavator, dozer and grader to enable the
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-skellocally (Select Haul	N		m3				Select Haul Distance Here	removal of the volume of stabilised material from the road, laydown or other surface using an excavator,
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-skellocally (Select Haul	Ñ				cks Subtotal	\$0	Select Haul Distance Here	removal of the volume of stabilised material from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation
Earthworks / Structural Works	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-steficially (Select Haul Distance from list) Minor reshaping and pushing - this may include			R	List	cks Subtotal	\$0	Select Haul Distance Here	removal of the volume of stabilised material from the road, laydown or other surface using an excavator, dozer and grader to enable the
Earthworks / Structural Works (Landform Establishment)	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-steflocally (Select Haul Distance from list)	N			List	cks Subtotal	\$0	Select Haul Distance Here	removal of the volume of stabilistic material from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% utilisation).
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sterfocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costeans, bulk samples, camp areas etc.			R	List	cks Subtotal	\$0	Select Haul Distance Here	removal of the volume of stabilised material from the road, slydown or other surface using an excavator, dozor and grader to enable the establishment of rehabilitation. D7 Dozor @ \$205 per hour and Grader @ \$212 per hour (50% usliesstan). Combination of dozor and excavalt
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sterfocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costnans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, dramage channels and other soil conservation.			R	List	cks Subtotal	\$0	Select Haul Distance Here	removal of the volume of stabilised material from the road, sydown or other surface using an excavator, dezer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (80% utilisation). Combination of dozer and excavaltwork, Small dozer (D6 or similar) \$27500 per hour plus grader @ \$27500 per hour plus grader
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-steficially (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks,	N		R ha	Clet cods and Tra \$3,900	cks Subtotal	\$0		removal of the volume of stabilised material from the read, slydown or other surface using an excavator, dozor and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (80% utilisation). Combination of dozer and excavativors, Small dozer (D6 or similar) ex200 per hour plus grader @ \$2*
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sterilocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, deranage channels and other soil conservation metalsures.	N		R ha	Clet cods and Tra \$3,900	cks Subtotal	\$0	Select Haul Distance Here Select Haul Distance Here	removal of the volume of stabilised material from the read, stydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% utilization). Combination of dozer and excavations. Similarly (~5200 per hour plus grader @ \$25 per hour for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 4 hours each 4 hours each per har for 5 hours each 4 hours each 5 hours each 5 hours each 5 hours each 5 hours each 5 hours each 5 hours each 5 hours each 5 hours each 5 hours each 5 hours each 6
	Remove stabilised material (blue motal, aggregate etc.) from roadways and disposal on-steflocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures.	N		ha ha	Liet cods and Tra \$3,900 \$1,800 Select from	cks Subtotal	\$0		removal of the volume of stabilison and manial from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% utilization). Combination of dozer and excavations, work, Small dozer (D8 or similar) (~\$200 per hour plus grader @ \$2 per hour for 4 hours each per ha. This item includes the volume of material requiring backful using an excavator and scraper for lift he vo
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sterilocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, deranage channels and other soil conservation metalsures.	N		R ha	Clet \$3,800 \$1,800	cks Subtotal	\$0		removal of the volume of stabilishms or material from the read, stydown or other surface using an excavator, dozor and grader to enable the establishment of rehabilitation. 107 Dozor @ \$205 per hour and Grader @ \$210 per hour (50% utilisation). Combination of dozor and excavativers, Small dozor (DG or similar) (~5200 per hour plus grader @ \$2 per hour for ~4 hours each per has them includes the volume of material requiring backfill using an excavator and scraper to fill the volume of and enable the establishment of
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sete/locally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costsans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, drainage channels and other sol conservation measures. Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	N		ha ha	Liet cods and Tra \$3,900 \$1,800 Select from	cks Subtotal	\$0		removal of the volume of stabilised material from the read, sydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% uslimister). Combination of dozer and excavativors. Small dozer (D6 or similar) (52 per hour for -4 hours each per ha. This term includes the volume of material requiring backful using an excavator and scraper to fill the volume of the combination of the combi
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(Landform Establishment) and Preparation and Revegetation (Growth Media Development and	Remove stabilised material (blue motal, aggregate etc.) from roadways and disposal on-steflocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures. Fill dams, voids etc Source local material, cart and spread to cap or backfill cap thickness determined by approval / perms (Select Haul Distance from List) Tim, rock rate & deep np (includes leveling / tandscaping and rig in 1 deciden). Deep np hard stand / lay down areas Earth Source, cart and spread growth media (Select Haul Distance from List) Planting mature trees (>15 cm) Planting tube stock (<15 cm) Direct seeding / fertiliser (tree or native grass species) Hydro-seeding with straw mulching and bitumen tack	N N N N N N N N N N N N N N N N N N N	tural Works (ha ha ha ha ha ha ha ha ha ha ha ha ha h	Liet \$3,900 \$1,800 \$1,800 \$1,800 Select from List \$860.00 ### Select from List \$2,000 \$1,200 \$1,240 \$2,095 \$1,80 \$420.00			Select Hauf Distance Here	removal of the volume of stableson or inter surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% utilisation). Combination of dozer and excavator, the stableshment of rehabilitation. Combination of dozer and excavator, the stableshment of rehabilitation. This item includes the volume of material requiring backfill using an excavator and scraper to fill the volume of rehabilitation. Grader @ \$212 per hour - nppng 1 direction only. D7 Rip at -\$205 f hr, 12 hr day, ha / day in the volume of material requiring load and haul using an excavator, truck and doz to enable the establishment of rehabilitation. This item includes the volume of material requiring load and haul using an excavator, truck and doz to enable the stableshment of rehabilitation. 4 m centrus. 4 m centrus. Rate can fluctuate however this is usuable standard rate. Rate can fluctuate however this is usuable standard rate. Rate can fluctuate however this is usuable standard over the last few years however in light of current conditions (fower fuel prices, reduced demand etc) this is a suitable. These rates have fluctuated over
(Landform Establishment) and Preparation and Revegetation (Growth Media Development and	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sterfocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costsans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, drainage channels and ether soll conservation measures. Fill dams, voids etc Source local material, cart and screed to cap or backfill (cap thickness determined by appreval / permit (Select Haul Distance from List) Time, rock rake & deep no (include) levelling / transcaping and rip in 1 direction). Deep nip hard stand / lay down areas Earth Source, cart and spread growth media (Select Haul Distance from List) Planting table stock (<15 cm) Direct seeding / fertiliser (tree or native grass species) Hydro-seeding with straw mulching and bitumen tack Single application of fertiliser (pasture)	N N N N N N N N N N N N N N N N N N N	tural Works (ha ha m3 m3 allow slow ha ha m2 ha	Liet \$3,900 \$1,800 \$1,800 Salect from List \$860.00 \$960.00 n Establishm Select from List \$2,000 \$1,240 \$2,005 \$1,80 \$440.00			Select Hauf Distance Here	removal of the volume of stabilised material from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (60% utilisation). Combination of dozer and excavator, the stabilishment of rehabilitation. Combination of dozer and excavators, small dozer (D6 or similar) 1-5200 per hour plus grader @ \$20 per hour for -4 hours each per ha fast and onable the establishment of rehabilitation. Grader @ \$212 per hour - nppng 1 direction only D7 Rip at -\$205 / hr, 12 hr day, -ha / day This item includes the volume of material requiring load and haul using an excavator, truck and doz to enable the stabilishment of rehabilitation. This item includes the volume of rehabilitation. 4 m centres. 4 m centres. 4 m centres. Rate can fluctuate however this is quitable standard rate. Rate can fluctuate however this is quitable standard rate. Rate can fluctuate however this is quitable standard rate. These rates have fluctuated over the last few years however in light of current conditions (fower fuel prices, reductioned demand etc) this is a suitable. These rates have fluctuated over the last few years however in light of current conditions (fower fuel prices, reductioned mander) this is a suitable. These rates have fluctuated over the last few years however in light of current conditions (fower fuel prices, reductioned mander) this is a suitable.
(Landform Establishment) and Preparation and Revegetation (Growth Media Development and	Remove stabilised material (blue motal, aggregate etc.) from roadways and disposal on-steficially (Select Haul Distance from list) Minor reshaping and pushing - this may include backfiling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures. Fill dams, voids etc Source local material, cart and spread to cap or backfill (cap thickness determined by approval) permit (Select Haul Distance from List) Timm, rock rake & deep rip (includes leveling / tandscapring and pin 1. direction). Deep rip hard stand / lay down areas Earth Source, cart and spread growth media (Select Haul Distance from List) Planting mature trees (>15 cm) Planting mature trees (>15 cm) Direct seeding / fertiliser (pasture grass species) Hydro-seeding with straw mulching and bitumen tack Single application of fertiliser (pasture)	N N N N N N N N N N N N N N N N N N N	tural Works (ha ha m3 m3 m3 m3 m3 m3 m3 m3 m3 m3 m4 m4 m4 m2 m4 m2 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4	Liet \$3,900 \$1,800 \$1,800 Salect from List \$860.00 \$660.00 **Establishm** \$1,200 \$1,240 \$2,005 \$1,80 \$420.00 \$140.00 \$860.00			Select Hauf Distance Here	removal of the volume of stabilised material from the read, laydown or other surface using an excavator, dezer and grader to enable the establishment of rehabilitation. D7 Dozer © \$205 per hour and Grader @ \$212 per hour (60% usinesstan). Combination of dozer and excavator, deserting the stabilishment of rehabilitation. This stem includes the volume of material requiring backful using an excavator and scraper to fill the volume of material requiring backful using an excavator and scraper to fill the volume of material requiring backful using an excavator and scraper to fill the volume of material requiring backful using an excavator and scraper to fill the volume of material requiring load and half using an excavator, truck and doz to enable the establishment of rehabilitation of the stabilishment of rehabilitation of the stabilishment of rehabilitation. 4 m centres. Rate can fuctuate however this is suitable standard rate. Rate can fuctuate however this is suitable standard rate. These rate have fluctuated over last few years however in light of current conditions (over fuel prices, red unitable standard rate. These rates have fluctuated over last few years however in light of current conditions (over fuel prices, red unitable standard rate. These rates have fluctuated over last few years however in light of current conditions (over fuel prices, red unitable standard rate. These rates have fluctuated over last few years however in light of current conditions (over fuel prices, red unitable standard rate. These rates have fluctuated over last few years however in light of current conditions (over fuel prices, red over
(Landform Establishment) and Preparation and Revegetation (Growth Media Development and	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sete/locally (Select Haul Distance from list) Million reshaping and pushing - this may include backfilling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, dramage channels and other soil conservation measures. Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approved in permit (Select Haul Distance from List) Time, rock rake & deep np (includes leveling / tandscaping and rip in 1 direction). Deep np hard stand / lay down areas Farth Source, cart and spread growth media (Select Haul Distance from List) Planting hube stock (<15 cm) Planting hube stock (<15 cm) Oricct seeding / fertiliser (pasture grass species) Hydro-seeding with straw mulching and bitumen tack Single application of fertiliser (pasture) Single application of fertiliser (pasture)	N N N N N N N N N N N N N N N N N N N	tural Works (ha ha m3 m3 allow slow ha ha m2 ha	Liet \$3,900 \$1,800 \$1,800 Salect from List \$860.00 \$960.00 n Establishm Select from List \$2,000 \$1,240 \$2,005 \$1,80 \$440.00			Select Hauf Distance Here	removal of the volume of stabilisation material from the road, sydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% usinestan) Combination of dozer and excavation, dozer and excavation work. Small dozer (D8 or similar) (5-200 per hour plus grader @ \$22 per hour for -4 hours each per ha this stabilitation of dozer and excavator and excavator and scraper to the theory of material requiring backful using an excavator and scraper to the theory of material requiring backful using an excavator and scraper to the theory of the excavator and scraper to the theory of the excavator and scraper to the theory of the excavator, the excavator and scraper to the theory of the excavator, truck and dozen and the the establishment of rehabilitation. 4 m centres. Rate can fuctuate however this a suitable standard rate. These rate have fuctuated over 1 last few years however in light of current conditions (over fuel price, red priced over the last few years however in light of current conditions (over fuel price, red priced over the priced over the stabilishment of the years however in light of current conditions (over fuel price, red priced over the stabilishment of the years however in light of current conditions (over fuel price, red priced over the stabilishment of the years however in light of current conditions (over fuel price, red priced over the stabilishment of the years however in light of current conditions (over fuel price, red priced over the priced over the stabilishment of the years however in light of current conditions (over fuel price, red priced over the priced over t
(Landform Establishment) and Preparation and Revegetation (Growth Media Development and	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-sterfocally (Select Haul Distance from list) Minor reshaping and pushing - this may include backfilling costeans, bulk samples, camp areas etc. Structural works, banks, waterways - contour banks, drainage channels and either self conservation measures. Fill dams, voids etc Source local material, cart and screed to cap or backfill cap thickness determined by appreval / permit (Select Haul Distance from List) Time, rock rake & deep no (inclusione from List) Time, rock rake & deep no (inclusione from List) Deep nip hand stand / lay down areas Earth Source, cart and spread growth media (Select Haul Distance from List) Planting mature trees (>155 cm) Direct seeding / fertiliser (tree or native grass species) Hydro-seeding with straw mulching and bitumen tack Single application of fertiliser (pasture) Single application of fertiliser (trees)	N N N N N N N N N N N N N N N N N N N	tural Works (ha ha m3 m3 m3 m3 m3 m3 m3 m3 m3 m3 m4 m4 m4 m2 m4 m2 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4 m4	Liet \$3,900 \$1,800 \$1,800 Salect from List \$860.00 \$660.00 **Establishm** \$1,200 \$1,240 \$2,005 \$1,80 \$420.00 \$140.00 \$860.00			Select Hauf Distance Here	removal of the volume of stabilised material from the read, laydon or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (60% utilisation). Combination of dozer and excavat work. Small dozer (D6 or similar) (*-2500 per hour plus grader §25 per hour for ~4 hours each per ha *-7500 per hour plus grader §25 per hour for ~4 hours each per ha *-7500 per hour for ~4 hours each per ha *-7500 per hour for ~4 hours each per ha and each the stablishment of rehabilitation. Grader @ \$212 per hour - nppng 1 direction only 0.7 Rip at ~5205 f hr, 12 hr day, ~ha / day — ha / day

Ì	Purchase and erect warning signs	N	allow	\$280.00				Compliance with AS 1319-1994 - Safety signs for the occupational environment - installed every 25 m
	Land Preparation and Revegetation (Growth	Media Dovelo	poment and Ecosyste	m Establishm	ent) Subtotal	\$0		DINVIOREMENT - VISIBLES EVENT CO. III
Water Management	Cand Preparation and Revegoration (Growth							Rate based on capacity of sump
viana managamana	Exploration sump decommissioning	N	m3	\$180,00				developed for borehole includes
8	Water / mud disposal from sump	N	L	\$0.30				Disposal of non-contaminated sediments removed from sump
1								Provisional sum for earthworks at
	SELF C. SE CONTROL MAD			- Y				revegetation required to rehabilital
	Clean water dams to be retained after decommissioning – make safe and minor earthworks	N	allow	\$2,500				an alternate land-user - D6 Doze
	decommissioning - make sale and minor earthworks							similar) @ ~\$200 per hour and
							Select Haul Distance Here	pasture grass
	Remove sediments from the floor of the dam to enable							This item includes the volume of contaminated sediment requiring
	it to be converted into clean water structure (Select	N	m3	Select from List				removal using an excavator, truc
	Haul Ostance from list)	10001		List				and dozer to clean out the dam
				total Mariana	cont Cubtotal	\$0		100 100 1
ntenance of Rehabilitated Areas				leter Manager	nent Subtotal	- 80		Rehabitation maintenance migh
Attendance of Renabilitated Areas			1 1				l .	include re-seeding, watering,
	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	N	ha	\$900.00				fertilising, minor re-shaping, eros control, inspections/audits - does
	second and revigestati has been soccessed		1 1					include major repair works
ĭ i				04 000				Areas requiring minor repair - rill
	Existing rehabilitation repair - minor	N	ha	\$1,200				minor growth media replacemen
		N	ha	\$1,700				Areas requiring moderate repair rils, significant growth media
	Existing rehabilitation repair - moderate	"	1,0	o i prac				roplacement
								Areas requiring major repair - rifi gullies, growth media replaceme
//	Existing rehabilitation repair - major	N	ha	\$2,500			1	some level of additional surface
								management
			ha	\$40,000				Areas that require extensive rehabilitation repair - re-design a
	Existing rehabilitation repair - total failure of landform	N	na	\$40,000				construction of langform
			Maintenance of R	ohabilitated A	reas Subtotal	\$0		
Maintenance of Other Land	Pest management on buffer lands, non-disturbed, and	2000	ha	\$150.00				Feral animal bating programs if required and waste materials
	rehabilitated areas	N	l na	\$100.00				required to be removed.
								Undisturbed areas within the lea
	i,and management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	N	ha	\$400.00				poundary that require land management activities
	THE RESERVE OF THE PARTY OF THE	100	Maintena	nce of Other I	and Subtotal	\$0		
Heritage Items								item for the redistribution of
2	The restoration and care and maintenance of items	:N:	allow	Use alternate				Abonginal artefacts, preservation European hentage items or a
	that have heritage significance			late cell				combination of activities
				Heritage II	ems Subtotal	\$0		
Sundry Items								Provisional sum for the NSW Government to prepare tender
	DRG lender preparation and assessment, stakeholder							documentation (i.e. damolition,
	consultation, risk assessment facilitation and	N N	allow	Use alternate				disposal, earthworks, environment
	management, statutory reporting and instruments, permitting and compliance requirements, document	N	anow	rate cell				management etc.) manage
	and data management	1	1 1					stakeholders and establish perr and compliance requirements for
								closum
	Additional fees for accessing State, Crown or other			Use atternate				Provisional sum
	public lands for rehabilitation/remediation activities	N	allow	rate cell				I TOVISIONAL SUTT
				Sundry I	ems Subtotal	\$0		
nird Party Project Management								Assumes an exploration progra 10 or fewer holes and local
			1 1					contractors within 250 km are
	Mobilisation & Demobilisation for exploration programs	N	Item	\$7,000				available to undertake rehabilita
								of disturbance generated by dedicated exploration companion
								Apply once per exploration paid
			Third Party Pr	oject Manage	nent Subtota	\$0		
	Other 1 <insert></insert>	N		This is				This dem includes < <to add<br="" be="">by the operator>></to>
Additional items								This item includes << to be add
Additional Items				deliberately			II.	by the operator>>
Additional Items	Other 2 <insert></insert>	N	1 1					
Additional items			-					This item includes << to be add
Additional Items	Other 3 <insert></insert>	N		left blank				
Additional items		N		left blank Additional I	tems Subtota	\$0	\$0	This item includes << to be add

Total Cost for all Rehabilitation Activities

\$0

Additional Assumptions: Record any relevant assumptions to this domain below:

Key Rehabilitation Area Data for Domain
Total Landform Establishment
Total Growth Media Development
Total Ecosystem Establishment

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Aiternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Nates:
Termination of Services and Demolition Works	Disconnect and terminate services at remote areas (j.e., pump stations, remote workshops, sewage treatment plant etc.)	N		allow	\$5,500				Used for infrastructure remote from primary connection. Can also be used for small mines / quarties that do not have dedicated supplies from supply authorities such as sited lattice power lines.
	Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations	N		km	\$15,000				Applies to power lines on stoble, concrete or similar poles
	Demolish and/or remove substations (assumes they are in a closed building). Dispose of waste material on- site/locally	N		m2	\$600,00				Simple structure to demolish. Assumes single story building and segregation of contents for scrap as applicable includes demoliton and removal of
	Demolish and remove switchyard, Dispose of waste material on starfocally	N		m2	\$55.00				all switchgear and transformers etc and segregation of contents for scrap as applicable
	Demolish and remove demountable structures on concrete stumps. Assumes not being re-used	N		m2	\$40.00				Cr b huts, temporary offices and other 'non permanent' structures Does not include transport to regional disposal facility or equivalent
	Demolish and remove small buildings/tanks (admin buildings, single story accommodation etc.) and disposal on-site/locally	N		m2	\$85,00				Simple structure to demolish, assumes no greater than 2 stories high. Does not include transport to regional disposal facility or equivalent
	Demolish and remove light industrial buildings and disposal on-stellocally	N		m2/floor	\$115,00				Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Remove small underground pipe and disposal on- steflocally	N		п	\$25.00				For example, 300 mm pipes - 0.5 m deep, does not include transport to regional disposal facility or equivalent
	Remove medium underground pipe and disposal on- ste/locally	N		ш	\$60,00				For example: 500 mm pipes - 1 m deep, does not include transport to regional disposal facility or equivalent
19	Remove large underground pipe and disposal en- sits/locally	N		m	\$165,00				For example 1 m pipes - 2 m deep
	Remove above ground pipe (supported) and disposal en-site/locally	N		m	\$12.00				~300 mm pipes and assumes pipes are in close proximity to infrastructure areas. Does not include transport to regional disposal facility or equivalent
	Remove surface pipelines (unsupported) and disposal on-site/focally	N		îm	\$15.00				~300 mm pipes and assumes pipes are used for water transfer between pits (or similar) and remotely located Does not include transport to regional disposal facility or equivalent
	Remove bilumen (car park and access roads) and dispose on-sto/locally	N		m2	\$10.00				Scalp bitumen and stabilised material Generally haulage rates will be \$0.60 - \$1,20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
	Remove concrete pads & footings (<300 mm thickness) and disposal on-site/focally	N		m2	\$37.00				Breaking up slab and disposal or for conversion to signingate. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-ette disposal use alternate rate option and add \$0.90 / km for transport.
	Crush concrete to make road aggregate - 75 mm	N		lonne	\$17.00				Does not include haviage of materials - assumes crushing plant is readily available
	Crush concrete to make road aggregate - 50 mm	N		tonne	\$20,00				Opes not include haulage of materials - assumes crushing plant is readily available
	Crush concrete to make road aggregate - 30 mm	N		tonne	\$22.00				Does not include haulage of materials - assumes crushing plant is readily available.
	Remove fence (cyclone/wire fence) and disposal on-	N		m	\$20.00				Roll up fence and remove posts
Contaminated Materials		Termina	tion of Servi	ces and E	Pernolition W	orks Subtotal	\$0		
									The preliminary investigation would include at minimum a desktop assessment of the area and side history, incidents, etc. as per the National Environmental Protection (Size Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) (w)) or similar approved and recognised
	Undertake a prekminary stib investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple studies may be required.			Christon	\$15,000				asponses and recognised asponses as assessment method. - duter may include: - duter may include: - duter may include: - duter may include: - duter may include may be made a special store, workshop, which wash-down, swange treatment etc.) - Processing plants (i.e., ore and product storage, mine waste storage and disposal, rail load-out etc.) - Remote pit-bip facilities (i.e., which re-fuel, sewage treatment, secondar workshop, chemical storage etc.)
	Removal and disposal of contaminated water from tanks, bunded areas and sumps	N		L	\$0.35				Cost for recent sump clean-up from resource activity - requires specialist
	Load, cart and dispose of High Level contaminated material off site to a licensed landfill. Assumes cartage	N		m3	\$700,00				Includes load, hauf and dump lees to a licensed facility.
	to a keensed landfill Load, cart and disposal of Low Level contaminated material off site to a keensed landfill. Add \$50/m3 for	N		m3	\$200.00				Includes load, haul and dump fees to a licensed facility.
	cartage to regional landfil		_	+	-			Select Volume Here	

	() (i)								
		1	1	1			1		Spreading of contaminated soils on
				- 1	-				prepared surface and stimulation of semblic microbial activity within the
	Onete remediation of hydrocarbon contaminated soils	360	- 1		Select from				so through aeration and/or the
	manual land farming (Select Volume from List)	N	- 1	m3	List))		addition of minerals, nutrients and moisture to promote the aerobic
J.		1 1	- 1		DOM: N				degradation of organic chemicals -
					The Control				time frame of up to 24 months
ï	Mobilisation of cement stabilisation plant and	N		Item	\$150,000				Required if treatment of hydrocarbo contamination is required to be fast
	equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	N		ILLETTI	2100,000				tracked
	On-site remediation of hydrocarbon contaminated soils	N		m3	\$165.00				Additional cost as the treatment process in fact tracked
	- using a mobile treatment unit								Where an assessment/estmation
	Remove and dispose of asbestos (<750 m2)	N		m2	\$50.00				has been made to confirm the volume of asbestos to be removed.
									Assumes ASS is treatable via
	Treatment of known Acid Sulfate Soils	N		ha	\$2,580				neutralisation and does not require
					1				capping and isolation Provisional sum for cutting using
	Removal and disposal of plastic liner (i.e. dam, leach pad, sump etc.)	N		m2	\$1.00				ripping tynes and on-sile disposal o
	pac, samp otery			Contarr	inated Mater	als Subtotal	\$0		the stat
Boreholes				Connan	mates mate	MIT SHPITMI			Where multiple boreholes exist, this
Cotenoies									is the rate for the total cumulative
					100				depth of all boreholes (e.g. two boreholes at 100m depth each =
					700				200m) Assumes a per metre drillir
	Option 1	910		depth	0.40.00				rate of ~\$150 / m of which ~25 - 30% is for rehabilitation which may
	Exploration boreholes – rehabilitate boreholes and drill pads as required (all inclusive rate)	N		(m)	\$40.00				include a vanety of works (i.e., cut
	pade as required (an inclusive rate)								casing and install cap, install poly
	ľ.				12 July 1		1		pipe to facilitate back-filling, grout preparation, grouting and capping.
					1 TO 1				reshaping / npping the drill pad,
									amelioration / seeding etc.)
	Option 2	N		allow	\$7,950				includes grouting and capping 100 200 m exploration boreholes to me
	Exploration boreholes – grout and cap open bore holes (all inclusive rate)	N		essw.	e7,000				the requirements of EDG01
									May include cutting of casing installation of a casing cap, and/or
	Option 3			all-:	2200				manually backfilling the hole with d
	Exploration boreholes – backfill open bore holes with cuttings	N		allow	\$300				cuttings Does not include reshap
	heratig ₂								/ ripping the drill pad, amelioration seeding etc
					Boreho	les Subtotal	\$0		
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor works	N		ha	\$980.00				D7 Rip at ~\$205 / hr, 12 hr day, ~? ha / day
	including deep rip and frim Unsealed roads / access tracks / vehicle park-up areas								D7 Rip at ~\$205 / hr, 12 hr day, ~
	with windrows and/or small earthen bunds - minor	N		he	\$1,500		l l		ha / day
	earthworks and deep np and trim Unscaled roads / whicle park-up areas - Minor								D7 Dozer @ \$205 per hour and
	earthworks, foal from and deep rip and seed (pasture	N		ha	\$3,698				Grader @ \$212 per hour (50%
	grase)								utisation) - pasture grass seed D7 Dozer @ \$205 per nour and
	Unsealed roads / vehicle park-up areas - Minor earthworks, final tim and deep rip, ameliorate and	N		ha	\$4,485				Grader @ \$212 per hour (50%
	send (native tree/shrub/grass)			_					utilisation) - treelshrub seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor	Date.			62.000				D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50%
	earthworks, final trim and deep rip, ameliorate and	N		ha	\$3,820		'		ublisation) - pasture grass seed
	seed (pasture grass) Unsealed roads / haul roads / vehicle park-up areas								D7 Dozer @ \$205 per hour and
	with windrows and/or small earthen bunds - Minor	N		ha	\$4,595				Grader @ \$212 per hour (50%
	earthworks, final trim and deep rip, ameliorate and				1				utilisation) - tree/shrub seed
	earthworks, final firm and deep rip, ameliorate and seed (native bee/shrub/grass)			114	0-1,000			Select Haul Distance Here	utilisation) - tree/shrub seed
				112				Select Haul Distance Here	utilisation) - tree/shrub seed This item includes the scraping an
	seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.)				Select from			Select Haul Distance Here	ublisation) - tree/shrub seed. This item includes the scraping an removal of the volume of stabilised material from the road, laydown or
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	seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.)				Select from			Select Haul Distance Here	ublisation) - tree/shrub seed. This item includes the scraping an removal of the volume of stabilised material from the road, laydown or
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Earthworks / Structural Works (Landform Establishment)	seed (native tree/shrub/grass) Remove stablised material (blue metal, aggregate etc.) from roadways and disposal on-site/ocally (Select Haul Distance from list)	N		m3	Select from List	icks Subtotal	\$0	Select Haul Distance Here	ublisation) - tree/shrub seed. This item includes the scraping an removal of the volume of stablese materials are the read, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D7 Dozer @ \$205 per hour and Grader @ \$212 per hour (50% ublisation).
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	Purchase and erect warning signs	N	alk	× \$260.0	0			Compliance with AS 1319-1994 - Safety signs for the occupational environment - installed every 25 m
	Land Preparation and Revegetation (Growth)	Media Devok	nment and Ecosy	tern Establi	hment) Subtot	al \$0		Techyzoninecs - Francisco Osery 25 in
Water Management	Land Preparation and Revegetation (Growth							Rate based on capacity of sump
Viater management	Exploration sump decommissioning	N	m	\$180.0	0			developed for barehole, includes filing of sumo. Disposal of non-contaminated
	Water / mud disposal from sump	N	l l	\$0.30				sediments removed from sump
								Provisional sum for earthworks and revegetation required to rehabilitate
	Clean water dams to be retained after			w \$2,60				dam batters etc suitable for re-use
	decommissioning – make safe and minor earthworks	N	alk	32,00			1	an alternate land-user - D6 Dozer (
								similar) @ ~\$200 per hour and pasture grass
							Select Haul Distance Here	
	Remove sediments from the floor of the dam to enable			Select fr				This imm includes the volume of contaminated sediment requiring
	it to be converted into clean water structure (Select	N	m	List	om		1	removel using an excavator, truck
	Haul Distance from list)	0.00	1 1	List				and dozer to clean out the dam
				Water Man	gement Subtot	al \$0		
intenance of Rehabilitated Areas				vyator man	generit oubtou	ai 60		Rehabitation maintenance might
untenance of Renadilitated Areas	to the state of th		1 1	Maria III			UI)	include re-seeding, watering,
	Maintenance of areas that have been shaped and seeded and revegetation has been successful	14	h	\$900.0	0		1	fertileing, minor re-shaping, erosio
	seeded and revegousters risk been accessed			179, 0			1	control, inspections/audits - does r include major repair works
				-			+	Areas requiring minor repair - rills
	Existing rehabilitation repair - minor	N	l h	\$1,20				minor growth media replacement
								Areas requiring moderate repair -
	Existing rehabilitation repair - moderate	N	h	\$1,70	'			rills, significant growth media replacement.
							1	Areas requiring major repair - nils,
	No. 1 and 1 and 1 and 1	N	h	\$2,50	,		1	guties, growth media replacement
	Existing rehabilitation repair - major		1 "	\$2,00			1	some level of additional surface wa
				-			1	management Areas that require extensive
	Existing rehabilitation repair - total failure of landform	N	l h	\$40,00				rehabitation repair - re-design and
	Existing renabilitation repair - was railed or landienin			a distribution			.1	construction of landform.
			Maintenance o	Rehabilitate	d Areas Subtot	al \$0		-
Maintenance of Other Land	Pest management on buffer lands, non-disturbed, and	N	Ь	\$160.0				Feral animal baiting programs & required and waste malerials
	rehabilitated areas	N	l l "	\$100.0	°			required to be removed
								Undeturbed areas within the lease
	Land management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	N	h	\$400.0	0			boundary that require land management activities.
			Mainte	nance of Ott	er Land Subtot	al \$0		The all to the second
Heritage Items			T					item for the redistribution of
5770000000000000	The restoration and care and maintenance of items	N.	all	W Use alto				Abonginal artefacts, preservation of European heritage items or a
	that have heritage significance			rate o	all			combination of activities
				Herita	e Items Subtot	al \$0		
Sundry Items								Provisional sum for the NSW
oundry terms	DRG lender preparation and assessment, stakeholder	l .	1 1			1		Government to prepare tender documentation (i.e. demolition, wa
	consultation, risk assessment facilitation and		1 1	Use alter				disposal, earthworks, environment
	management, statutory reporting and instruments,	N	alt	w rate c				management etc.) manage
	permitting and compliance requirements, document	l	1 1	late C	"			stakeholders and establish permit
	and data management	l						and compliance requirements for
								closure
	Additional fees for accessing State, Crown or other	N	ali	w rate c				Provisional sum
	public lands for rehabilitation/remediation activities			17	ry Items Subtot	tal \$0		
Third Party Project Management			f T	ounc	., 555101	-		Assumes an exploration program
inna raity riojest management		l	1 1					10 or fewer holes and local
	I		1 1	AT 0.0				contractors within 250 km are available to undertake rehabilitate
	Mobilisation & Demobilisation for exploration programs	N	l tu	т \$7,00	0			of disturbance generated by
				1745				dedicated exploration companies
								Apply once per exploration pad
The second second			Third Party		gement Subto	tal \$0		This form includes << to be added
Additional items	Other 1 <insert></insert>	N		This	9			by the operator>
	242	N		deliben	halv			This item includes << to be added
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	au a durat	N		left bis	nk			This item includes << to be added by the operator>>
								THE THE ODERATOR
	Other 3 <insert></insert>		1	Addition	al Itama Subtat	tal 50		
	Total Cost for al	100			al Items Subto	tal \$0	\$0	

Assumptions and rehabilitation requirements
List or record any assumptions made when completing this tool:
Assumes maximum disturbance at the end of 2017 of 1.1625 hectares (following the completion of 31 boreholes Assumes the only ground disturbance will be associated with drilling activities (i.e. no additional formed Disturbance area per borehole assumed to be 0.0375ha (375m2)
Disturbance area per horehole assumed to be 0.0375ha (375m2)
Disturbance area per borenole assumed to be occorona (or sinz)



Justification for Change of Rates in the DRG's Rehabilitation Cost Estimation Tool

Justification							
Adopted Rates							
DRG unit/rate							
Activity	Y						
Domain							

In completing the Rehabilitation Cost Estimation, we are seeking an adjustment to the rates currently utilised in the DRG Rehabilitation Cost Estimation Tool. A justification for the rate change by a third party has been included and I confirm that only the rates identified in the above table Signature Date Authorisation Representatives Role / Responsibility have been altered in the Rehabilitation Cost Estimation Tool. **Authrorisation Representatives Name**



Definitions for the DRG Rehabilitation Cost Estimation Tool

Term	Meaning
adit	Entrance to an underground mine which is horizontal or nearly horizontal, by which
adit	the mine can be entered, drained of water and ventilated
amelioration	Addition of materials to change physical or chemical properties or soil, tailings, or
arrienoration	other materials.
aquifer	Has the same meaning as it has in the Water Management Act 2000.
armouring	Application of a self-sustaining mechanism for erosion control typically utilising rock.
authority	Means an exploration licence, an assessment lease or a mining lease granted under the Mining Act 1992.
authorisation	Means an authority, a small-scale title or an environmental assessment permit granted under section 252 in force under the <i>Mining Act 1992</i> .
backfill	The act of placing material to refill an excavation or void (such as an open cut or dam).
ballast (rail)	A free draining coarse aggregate or metallurgical slag used to support railway tracks and allow for drainage.
batters	Slopes manufactured during mining and/or excavation activities.
borehole	A hole made by drilling or boring, but excludes sampling and coring using hand held equipment; and petroleum wells.
capillary break	A layer of coarse material placed between finer-textured materials to prevent the vertical movement of water (and associated salts) by surface tension from the lower finer-textured material into the upper finer-textured material (such as topsoil or growth media). It can also function to limit root penetration into the underlying seal and more than one capillary break can be present within a cover design.
capping / sealing	The act of applying material (such as clay) in a usually engineered design to seal off underlying material (such as waste, contaminated soil or spoil) in order to prevent exposure of this material to the environment and outside conditions.
CHPP	Coal Handling and Processing Plant - A plant used to upgrade the quality of coal including crushing, sizing washing and drying.
Clearing of vegetation	 Any one or more of the following: cutting down, felling, thinning, lopping, logging or removing vegetation killing, destroying, poisoning, ringbarking, uprooting or burning vegetation.
contaminated	Condition or state where there is/are potentially hazardous substance(s) at concentrations above background or recommended land use levels and where assessment shows it poses, or is likely to pose, an immediate or long-term hazard to human health or the environment.
contour banks	Earthen structures constructed across cultivated slopes.
crusher/crushing plant	Equipment that crushes ore or rock - also referred to as a mill
demountable	A transportable prefabricated structure/building produced off site and transported to site, designed to be movable rather than permanently located.
Department	The Division of Resources and Geosciences within the NSW Department of Planning and Environment.
desiccation	Process of removing moisture or extreme drying.
de-water	Removal or draining groundwater or surface water from a structure by pumping or evaporation.
diversion	A drain or channel that diverts stormwater runoff around a site or landform.
earthworks	Equipment activity involving the placement and working of large amounts of earth to engineering or other design specification (such as cut and fill operations for roads, dams, landforms, etc.).
evaporation fans	Fans used to evaporate water as an alternative to discharging water off-site.
excavation	The removal of the surface layer of land to a depth greater than 500 mm from the natural surface level of that land.

exploration	Has the same meaning as it has in the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.
	A method of reducing the in-situ gas content of the seam to within acceptable limits
gas drainage	by drilling holes into the seam or surrounding strata ahead of mining.
goaf	The space remaining following extraction of the mineral.
groundwater	Water that occurs beneath the ground surface in the saturated zone
hardstand	A hard-surfaced area on which heavy vehicles can be parked and equipment can be stored.
haul road	Roads used to transport mine materials (product and waste).
HAZMAT	Anything that, when produced, stored, moved, used or otherwise dealt with without adequate safeguards to prevent it from escaping, may cause injury or death or damage to life, property or the environment.
Item of heritage significance	Means: • any heritage items listed in one or more of the following: — the Commonwealth Heritage List — the World Heritage List — the National Heritage List — the State Heritage Register — an Environmental Planning Instrument • any relic (being any deposit, object or material evidence which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and which is 50 or more years old) • within State Conservation Areas: — items that are listed on the DECC Historic Heritage Information Management System — in all other circumstances, any deposit, object or material evidence relating to the settlement or occupation of New South Wales or a part of New South Wales (not being Aboriginal settlement or occupation) if the deposit, object or material evidence is more than 25 years old at the date of the interference or removal. Dissolution and removal of a soluble substance from a substrate.
leach mine subsidence	Movement of strata resulting from the extraction of coal, metals or minerals and incorporates vertical ground movement (strain) and differential vertical movement (tilt).
open cut	Open-cut mining occurs where mineral deposits are close to the surface and typically involves blasting and removing surface layers of soil and rock to reach the mineral deposit. Also referred to as open-pit, or open-cast mining.
overburden	Top soil/strata overlying a coal seam.
petroleum title	means an exploration licence, assessment lease, production lease or special prospecting authority in force under the <i>Petroleum (Onshore) Act 1991</i> .
petroleum well	Means a hole made by drilling or boring in connection with prospecting for petroleum or operations for the recovery of petroleum, but excludes: • sampling and coring using hand held equipment • a hole constructed and operated for the following purposes where the operation of that hole does not involve fracture stimulation or the recovery of petroleum: — stratigraphic definition — seismic (for example shot holes, geophone, tilt meters bores)

DRG Schedule of Rehabilitation Costs

Reference Data V4



Item	Activity Description	Unit	Un	it Prices	Justification and Assumptions for Proposed Rates
ermin	ation of Services and Demolition Works		_		For disconnection of all services, at building boundaries, physical cut at the
1_01	Disconnect and terminate all services (Water, electricity, gas etc at point of attachment to site)	allow	\$	35,000	point of attachment or distribution location. If infrastructure is not consolidated (i.e., administration, camp and workshops are in separate places), consider multiple disconnection fees. Used for infrastructure remote from primary connection.
1.02	Disconnect and terminate services at remote areas (i.e. pump stations, remote workshops, sewage treatment plant etc.)	allow	\$	5,500	Can also be used for small mines / quarries that do not have dedicated supplies from supply authorities such as steel lattice power lines.
1.03	Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations	km	\$	15,000	Applies to power lines on stobie, concrete or similar poles.
1.04	Removal of power lines on tower or lattice structures (this includes disconnection, rolling up the wires and removing the structures) - does not include the removal of substations	km	\$	100,000	Applies to power lines on steel tower and steel lattice structures assuming 3 towers / km.
1.05	Remove significant rail, road, water course overpass - manage potential interuptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material on-site/locally	ltern	\$	350,000	Major structures constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent,
1.06	Demolish and/or remove substations (assumes they are in a closed building). Dispose of waste material on-site/locally	m²	\$	600.00	Simple structure to demolish. Assumes single story building and segregation of contents for scrap as applicable.
1.07	Demolish and remove switchyard, Dispose of waste material on-site/locally	m²	\$	55.00	Includes demolition and removal of all switchgear and transformers etc. and segregation of contents for scrap as applicable.
1.08	Demolish and remove demountable structures on concrete stumps, Assumes not being re-used	m²	\$	40,00	Crib huts, temporary offices and other 'non permanent' structures. Does no include transport to regional disposal facility or equivalent.
1.09	Demolish and remove small buildings/tanks (admin buildings, single story accommodation etc) and disposal on-site/locally	m²	\$	65,00	Simple structure to demolish, assumes no greater than 2 stories high. Doe not include transport to regional disposal facility or equivalent.
1.10	Demolish and remove light industrial buildings and disposal on-site/locally	m²/floor	\$	115,00	Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
1.11	Demolish and remove industrial buildings (workshops tyre change and servicing area etc not CHPP/process plant) and disposal on-site/locally	m²/floor	\$	180.00	Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
1_12	Demolish and remove CHPP/process plant (include the area of each floor of the structure) and disposal on-site/locally	rn²/floor	\$	265.00	Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m), Does not include transport to regional disposal facility or equivalent.
1.13	Collapse, demolish and remove washery, crushers, hoppers, mills, furnaces, agglomeration, electrowinning, floatation, sizing stations, rotary breakers, etc (include the area of each floor of the structure) and disposal on-site/locally	m²/floor	\$	265.00	Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
1.14	Collapse, demolish and remove stacker OR reclaimer (radial or luffing etc. with maneuverability for stockpile control) and disposal on-site/locally	allow	\$	1,000,000	Cost for removal of stacker or reclaim unit only. Does not include terminate services, remove rails and ballast etc. Does not include transport to regional disposal facility or equivalent.
1.15	Collapse, demolish and remove bucket wheel stacker/reclaimer and disposal on- site/locally	allow	\$:	2,500,000	Cost for just removal of the bucket wheel stacker/reclaim units. Does not include terminate services, remove rails and ballast etc. Does not include transport to regional disposal facility or equivalent.
1.16	Remove stacker/reclaimer rails and ballast and demolish and remove concrete footings etc and disposal on-site/locally	m	\$	75.00	Includes both rails, does not include the conveyor system. Does not include transport to regional disposal facility or equivalent.
1.17	Collapse, Cut and Remove 5000T coal silo and disposal on-site/locally	allow	\$	100,000	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
1,18	Collapse, Cut and Remove 3000 T coal silo and disposal on-site/locally	allow	\$	85,000	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
1.19	Collapse, Cut and Remove 1250 T coal silo and disposal on-site/locally	allow	\$	65,000	Collapse structure and remove, Does not include transport to regional disposal facility or equivalent.
1.20	Collapse, Cut and Remove rail loading bins and disposal on-site/locally	allow	\$	65,000	Collapse structure and remove, Does not include transport to regional disposal facility or equivalent.
1.21	Demolish and remove onground conveyors, transfer stations & gantries (scrap only – does not include dismantling for reuse at another site) and disposal on-site/locally	m	\$	210,00	Estimate for on-ground conveyor including anything up to 10 m off the ground. Does not include transport to regional disposal facility or equivalent.
1,22	Demolish and remove elevated conveyors, transfer stations & gantries (scrap only, does not include dismantling for reuse at another site) and disposal on-site/locally	m	\$	370.00	Estimate for elevated conveyor up to ~10 m off the ground. Does not include transport to regional disposal facility or equivalent.
1.23	Demolish and remove overhead conveyors, transfer stations & gantries (scrap only, does not include dismantling for reuse at another site) and disposal on-site/locally. This may include small scale fixed material stacking infrastructure	m	\$	1,200	Estimate for overhead conveyor including conveyors that are >10 m off the ground that require a crane to remove. Does not include transport to regional disposal facility or equivalent.
1.24	Demolish reclaim tunnel, cut reo and expose reclaim conveyor, then collapse into the reclaim tunnel void (Does not include excavation to expose reclaim tunnel, removal of conveyor or backfilling void)	m²	\$	80.00	Does not include conveyor removal or backfill.
1,25	Remove and demolish conveyor from reclaim tunnel (Does not include excavation and demolition of reclaim tunnel roof)	m	\$	150.00	Due to no canopy or infrastructure attached.
1,26	Demolition of reclaim tunnel concrete (Assumes complete removal and dumping in mine pit void)	m	\$	950.00	Assumes this area will be used for another land-use that requires the structure to be dug up and re-buried somewhere else.
1.27	Demolition and removal of vent raise fans, electrical substation and winch and disposal on-site/locally	allow	\$	25,000	Does not include filling and capping the shaft. Does not include transport regional disposal facility or equivalent.
1.28	Demolish and remove small tank clean (Thickener etc 3 - 9 m diameter) and disposal on-site/locally	allow	\$	10,000	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
1,29	Demolish and remove medium lank clean (Thickener etc 10 - 15 m diameter) and disposal on-site/locally	allow	\$	30,000	regional disposal facility or equivalent.
1.30	Demolish and remove large tank clean (Thickener etc 15 - 30 m diameter) and disposal on-site/locally	allow	\$	45,000	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
1.31	Demolish and remove extra large tank clean (Thickener etc >30 m diameter) and disposal on-site/locally	allow	\$	85,000	regional disposal facility or equivalent.
1.32	Demolish and remove tank clean (Thickener etc) >50 m diameter and disposal on- site/locally	allow	\$	100,000	transport to regional disposal facility or equivalent.
1.33	Removal of UG tank <5000 L - including pipes, bunds etc. and disposal on-site/locally	allow	\$	21,000	Assume tank is clean (contents removed), does not include transport to regional disposal facility or equivalent.
_	Removal of UG tank 5000 L - 15000 L - including pipes, bunds etc. and disposal on-	allow	\$	30,000	Assume tank is clean (contents removed), does not include transport to regional disposal facility or equivalent.
1.34	site/locally				For example: 300 mm pipes - 0.5 m deep, does not include transport to

Item	Activity Description	Unit	Unit	Prices	Justification and Assumptions for Proposed Rates
1.36	Remove medium underground pipe and disposal on-site/locally	m	\$	60.00	For example: 500 mm pipes - 1 m deep, does not include transport to regional disposal facility or equivalent.
1.37	Remove large underground pipe and disposal on-site/locally	m	\$	165,00	For example: 1 m pipes - 2 m deep.

Item	Activity Description	Unit	Unit Pr	rices	Justification and Assumptions for Proposed Rates
1.38	Remove above ground pipe (supported) and disposal on-site/locally	m	\$	12.00	~300 mm pipes and assumes pipes are in close proximity to infrastructure
	Remove surface pipelines (unsupported) and disposal on-site/locally	m	\$	15.00	areas. Does not include transport to regional disposal facility or equivalent. -300 mm pipes and assumes pipes are used for water transfer between pits (or similar) and remotely located. Does not include transport to regional
1.40	Remove pump and pontoon from a lake or dam including pipes and electrical supply or diesel tank/s and disposal on-site/locally	allow	\$ 150	0,000	disposal facility or equivalent. Assumes infrastructure is moored and requires barge mobilisation to sever the mooring and / or is a significant fixed structure for controlled release of
1_41	Remove bitumen (car park and access roads) and dispose on-site/locally	m²	\$	10.00	water. Does not include transport to regional disposal facility or equivalent. Scalp bitumen and stabilised material. Generally haulage rates will be \$0.60 - \$1,20 / km, depending on truck fleet, loaders etc. For off-site
		_2	\$ 2		disposel use alternate rate option and add \$0.90 / km for transport. Scalp bitumen and stabilised material. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site
1.42	Remove bitumen (airstrip) and dispose on-site/locally	m²	\$ 4		disposal use alternate rate option and add \$0.90 / km for transport. Breaking up slab and disposal or for conversion to aggregate. Generally
1,43	Remove concrete pads & footings (<300 mm thickness) and disposal on-site/locally	m²	\$	37.00	haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
1.44	Remove concrete pads & footings (>300 mm thickness) and disposal on-site/locally	m²	\$	75.00	Breaking up slab and disposal or for conversion to aggregate. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0,90 / km for transport.
1.45	Crush concrete to make road aggregate - 75 mm	tonne	\$	17.00	Does not include haulage of materials - assumes crushing plant is readily available.
1.46	Crush concrete to make road aggregate - 50 mm	lonne	\$:	20.00	Does not include haulage of materials - assumes crushing plant is readily available.
1_47	Crush concrete to make road aggregate - 30 mm	tonne		22,00	Does not include haulage of materials - assumes crushing plant is readily available.
	Remove fence (cyclone/wire fence) and disposal on-site/locally	m	\$:	20.00	Roll up fence and remove posts.
2.01	Remove rail loop and spur, ballast etc. and disposal on-site/locally	m	\$		Remove all materials to allow area to be reshaped and rehabilitated - does not include transport to regional disposal facility or equivalent.
2.02	Remove train loading facilities and disposal on-site/locally	m²	\$ 2	65.00	Remove rail load point infrastructure including gantries and control structures, Does not include transport to regional disposal facility or equivalent.
2.03	Reshape rail spur and load out areas. Does not include growth media and revegetation	ha	s :		D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour (50% utilisation).
Contar	ninated Materials				The preliminary investigation would include at minimum a desktop
3.01a	Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple studies may be required.	Cluster	\$ 1	5,000	assessment of the area and site history, incidents, etc. as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. A cluster may include: - Mine infrastructure (i.e., fuel / chemical store, workshop, vehicle washdown, sewage treatment etc.) - Processing plants (i.e., ore and product storage, mine waste storage and disposal, rail load-out etc.) - Remote pit-top facilities (i.e., vehicle re-fuel, sewage treatment, secondary workshop, chemical storage etc.)
3.01b	Undertake an intrusive site investigation. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Cluster	\$ 10	0,000	The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e. underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation.
3.02	Removal and disposal of contaminated water from tanks, bunded areas and sumps	L	\$	0.35	Cost for recent sump clean-up from resource activity - requires specialists to treat.
3.03-	Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (Select Haul Distance from list)	m³	Select List	from	This item includes scraping and removal of the volume of carbonaceous material using dozer, grader etc. to make safe an area and enable the establishment of rehabilitation.
3.03a	Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (haul distance < 1km)	m³	\$	3,90	D10 Rip and push into void at \$270/hr, 0.2ha/hr, 150mm deep, 657 Scrapers cut to spoil at \$430/hr, 150BCM/hr/machine, Ancillary watercart and grader at \$0.75c/m3
3.03b	Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (haul distance >1 km but <2 km)	m ³	\$	5.31	D10 Rip and push into void at \$270/hr, 0.2ha/hr, 150mm deep. 657 Scrapers cut to spoil at \$430/hr, 130BCM/hr/machine, Ancillary watercart and grader at \$0.75c/m3
3,03c	Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (haul distance >2 km but <5 km)	m ³	\$	6,67	D10 Rip and push into stockpile at \$270/hr, 0.2ha/hr, 150mm deep. Excavator (\$220/hr) load Artic Trucks (90c/km)
3.03d	Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (haul distance >5 km)	m³	\$	8,92	As above, generally overhaul rates will be 60c-\$1.2, depending on truck fleet, loaders etc assumed 7.5 km. If haul distance is greater than 7.5 km, alternate rate option should be used - \$8.92 + additional km x \$0.90.
3.04	Load, cart and dispose of High Level contaminated material off site to a licensed landfill. Assumes cartage to a licensed landfill	m ³	\$ 7	700.00	Includes load, haul and dump fees to a licensed facility.
3.05	Load, cart and disposal of Low Level contaminated material off site to a licensed landfill. Add \$50/m³ for cartage to regional landfill	m ³	\$ 2	200,00	Includes load, haul and dump fees to a licensed facility.
3.06-	Onsite remediation of hydrocarbon contaminated soils manual land farming (Select Volume from List)	m³	Select List	from	Spreading of contaminated soils on a prepared surface and stimulation of aerobic microbial activity within the soils through aeration and/or the addition of minerals, nutrients and moisture to promote the aerobic degradation of organic chemicals - time frame of up to 24 months.
3.06a	Onsite remediation of hydrocarbon contaminated soils (<50 m³) - manual land farming	m³	\$	55,00	Current rates still adequate and recommend continue to allow for economies of scale.
3.06b	Onsite remediation of hydrocarbon contaminated soils (>50 m³ but <100 m³) - manual land farming	m ³	\$	44.00	Current rates still adequate and recommend continue to allow for economies of scale.
3.06c	Onsite remediation of hydrocarbon contaminated soils (>100 m ³ but <500 m ³) - manual land farming	m ³	\$	33.00	Current rates still adequate and recommend continue to allow for economies of scale.
3.06d	Onsite remediation of hydrocarbon contaminated soils (>500 m³) - manual land farming	m³	\$	30.00	Current rates still adequate and recommend continue to allow for economies of scale.
3.07	Mobilisation of cement stabilisation plant and equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	Item	\$ 15	50,000	Required if treatment of hydrocarbon contamination is required to be fast tracked.
3.08	On-site remediation of hydrocarbon contaminated soils - using a mobile treatment unit	m³	\$ 1	165.00	Additional cost as the treatment process is fast tracked.

Item	Activity Description	Unit	Uni	Prices	Justification and Assumptions for Proposed Rates
3,09	Remove and dispose of asbestos (<750 m ²)	m²	\$	50,00	asbestos to be removed.
3.10	Remove and dispose of asbestos (>750 m²)	m ²	\$	40.00	asbestos to be removed.
3.11	Remove and dispose of asbestos	tonne	\$	2,400	6 mm asbestos sheet approx. 15 kg / m² = ~70 m² per ton. Allowing \$20 / m² for removal, 4 hours trucking @\$125 and \$100 / t disposal plus 20% OHP = \$2,400 / t.
3.12	Treatment of known Acid Sulfate Soils	ha	\$	2.5H(1	Assumes ASS is treatable via neutralisation and does not require capping and isolation.
3.13	Removal and disposal of plastic liner (i.e. dam, leach pad, sump etc.)	m ²	\$	1.00	Provisional sum for cutting using ripping tynes and on-site disposal of the liner.

Item	Activity Description	Unit	Uni	t Prices	Justification and Assumptions for Proposed Rates
Vents, S	shafts and Boreholes				
4.01	Seal portals / drifts (width >3 m) – backfill the access for at least 50 m against a concrete bulk head with drainage slots. The rate includes some reshaping of batters around the adit entrance. If concrete bulk head not required, reduce rate by 25%	allow	\$	250,000	Cost estimated from planned and executed works programs in NSW from multiple sites. Rate accounts for a range of factors including variations in depth and size, accessability limitations, requirements for extra roof and/or rib support, equipment transport into the underground etc.
4.02	Seal small adits (width <3 m) – install 0.5 concrete plug 3 m back from adit and backfill with appropriate material. The rate includes some reshaping of the batter around the entrance of the adit	allow	\$	25,000	Cost estimated from planned and executed works programs in NSW from multiple sites. Rate assumes standard works program with suitable access, and additional roof and rib stabilisation works etc. is not required.
4.03	Seal and rehabilitate ventilation fans shafts - allows for works in a remote location	allow	\$	150,000	Cost estimated from planned and executed works programs in NSW from multiple sites. Rate accounts for a range of factors including variations in depth and size, accessability limitations, equipment transport to the shaft etc.
4.04	Maintenance and monitoring of sealed adits/portals and shafts (for a total of 5 years)	allow	\$	25,000	Estimate to undertake periodic inspections by a qualified person and provide a completions report for DRG sign-off.
4.05 I	install gate or grill over the adit (Where site might be used by bats)	Item	\$	200,000	Rate accounts for a range of factors including establishing clear access, and/or working in remote locations without services, and/or stabilisation works to prevent the entry collapsing and compromising the gate etc. Where multiple boreholes exist, this is the rate for the total cumulative
4.06a I	Exploration boreholes – rehabilitate boreholes and drill pads as required	depth (m)	\$	40.00	depth of all boreholes (e.g. two boreholes at 100m depth each = 200m), Assumes a per metre drilling rate of ~\$150 / m of which ~25 - 30% is for rehabilitation which may include a variety of works (i.e., cut casing and install cap, install poly pipe to facilitate back-filling, grout preparation, grouting and capping, reshaping / ripping the drill pad, amelioration / seeding etc.)
4.06b	Exploration boreholes – backfill open bore holes with cuttings	allow	\$		May include cutting of casing, installation of a casing cap, and/or manually backfilling the hole with drill cuttings. Does not include reshaping / ripping the drill pad, amelioration / seeding etc. Includes grouting and capping 100 - 200 m exploration boreholes to meet
4.07	Exploration boreholes – grout and cap open bore holes	allow	\$	7,950	Holes deeper than 100 m - includes cutting steel collar 6 m below surface,
	Boreholes cap and seal open bore holes with steel casing (i.e., goaf drainage etc.)	allow	\$	6,960	grouting and capping
4.09	Boreholes – cap and seal open bore holes - surface-to-in-seam gas drainage Boreholes – cap and seal open bore holes - vertical gas drainage	allow	\$		Surface-to-in-seam gas drainage boreholes. Vertical gas drainage boreholes.
4.11	Boreholes – grout (with concrete) cap and seal bore holes (i.e. where sealing aquifers)	allow	\$	35,000	Includes multi skin sleaves to prevent aquifer mixing.
	Boreholes – cap and seal service boreholes for UG operations	allow	\$	45,000	Includes large diameter boreholes used for supplying electricity (66kV), compressed air, water, solsenic etc.
5.01	Unsealed roads / vehicle park-up areas - minor works including deep rip and trim Unsealed roads / access tracks / vehicle park-up areas with windrows and/or small	ha	S		Assumes ~6 m road width - 16H Grader @ \$212 per hour.
5.02	earthen bunds – minor earthworks and deep rip and trim	ha	\$	1,500	Assumes ~20 m road width - D10 Dozer @ \$332 per hour. D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour (50%
5.03	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip and seed (pasture grass)	ha	\$	3,698	utilisation) - pasture grass seed.
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	ha	\$	4,485	D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour (50% utilisation) - tree/shrub seed.
5,05	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	ha	\$	3,820	D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour (50% utilisation) - pasture grass seed.
5,06	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds — Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	ha	\$	4,595	D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour (50% utilisation) - tree/shrub seed. This item includes the scraping and removal of the volume of stabilised
5.07-	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on- site/locally (Select Haul Distance from list)	m ³	Sel List	ecl from	material from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation. D10 Rip and push into void at \$270/hr, 0.2ha/hr, 150mm deep. 657
5,07a	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on- site/locally (haul distance < 1km) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-	m ³	\$		Scrapers cut to spoil at \$430/hr, 150BCM/hr/machine, Ancillary watercart and grader at \$0.75c/m3 D10 Rip and push into void at \$270/hr, 0.2ha/hr, 150mm deep. 657
5.076	site/locally (haul distance >1 km but <2 km)	m ³	\$	5,64	Scrapers cut to spoil at \$430/hr, 130BCM/hr/machine, Ancillary watercart and grader at \$0.75c/m3
5.07c	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on- site/locally (haul distance >2 km but <5 km)	m³	\$	7,20	D10 Rip and push into stockpile at \$270/hr, 0.2ha/hr, 150mm deep. Excavator (\$220/hr) load Artic Trucks (90c/km)
5.07u	Remove stabilised material (blue metal, aggregate etc.) from roadways and dump in a void on-site (haul distance >5 km)	m³	\$	9.45	Generally overhaul rates will be 60c-\$1.2, depending on truck fleet, loaders etc assumed 7.5 km. If haul distance is greater than 7.5 km, alternate rate option should be used - \$9.45 + additional km x \$0.90.
Open C 6.01	Active pit area – benches blasted and doze to acceptable grade	Lm	Is	1.70	Blasting at 90c/m3, D11 push at \$350 and 375 bcm/hr (80c/m3).
	Drill & blast faces to make safe	m³	\$	0.90	Bulk Drilling say 8*9 pattern, assuming a stem height of 6 m, charge length of 19 m, explosive density of 0.9, cliameter of 229 mm, explosives at 665.3 kg/hole with a powder factor of 0.37 with an approximate bench height of 25 m will allow drilling and blasting at \$0.90/bcm.
6,03	High wall treatment – (trench and safety berm)	m	\$	90,00	D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour including revegetation with pasture grass.
Earthw	orks / Structural Works Major bulk pushing to achieve grades nominated in the approval/permit - Select Push		Sel	ect from	
7.01-	Length	m ³	List	oct from	Major bulk pushing to achieve grades nominated in the approval/permit
7.01a	Major bulk pushing to achieve grades nominated in the approval/permit – 50 m push length	m ³	\$	0,80	D11 push at \$350 and 400 bcm/hr
7.01b	Major bulk pushing to achieve grades nominated in the approval/permit – 50 m-75 m push length	m ³	\$	1.14	D11 push at \$350 and 375 bcm/hr
7.01c	Major bulk pushing to achieve grades nominated in the approval/permit – 75 m-100 m push length)	m ³	\$	1.42	D11 push at \$350 and 250 bcm/hr
7.01d	Major bulk pushing to achieve grades nominated in the approval/permit – 150 m push length)	m ³	\$	1,89	D11 push at \$350 and 175 bcm/hr
7.02	Minor reshaping and pushing	ha	\$	3,900	D10 Dozer @ \$332 per hour and 16H Grader @ \$212 per hour (50% utilisation).
7,03	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	ha	\$	1,600	Combination of dozer and excavator work. Small dozer (D6 or similar) @ -\$200 per hour plus grader @ \$212 per hour for ~4 hours each per ha.
7.04	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	m²	\$	35.00	Installation of on-site rock material (rip-rap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available).
Mine W		1		NI D	This includes sourcing, carting, spreading, moisture conditioning and
8.01	Reshaping, capping / sealing of a structure unlikely to present difficulties due to chemistry – reactive materials (ARD / AMD / PAF / NMD / carbonaceous / saline), and physical properties (i.e., shear strength, etc.) - where the mine waste stream is geochemically benign and / or the strength condition within the upper 4 - 6 m meets the target shear strength profile.	ha	\$	81,000	compaction of a suitable volume material with the appropriate chemical and physical properties. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness of approximately 1 m including growth media. Water quality from runoff, seepage etc. meets site-specific environment water quality values.
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality	allow	Us	e mate rate	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric /

ltem:	Activity Description	Unit	Unit Prices	Justification and Assumptions for Proposed Rates
8,01b	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc., meeting site-specific environment water quality values.	allow	Use alternate rate cell	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
8.02	Reshaping, capping / sealing of structure likely to present moderate difficulties due to chemistry – reactive materials (ARD / AMD / PAF / NMD / carbonaceous / saline), or physical properties – shear strength, etc, limiting equipment choice.	ha	\$ 108,000	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities where the tailings or rejects base is at a strength that enables economically efficient construction methods with small plant. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness of approximately 2 m including growth media. This may require additional materials (such as capillary breaks, geofabric, etc.), specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised materials must be added separately if required.
8,02a	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	allow	cell	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.)
8,02b	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	allow	Use alternate rate cell	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
8,03	Reshaping, capping / sealing of structure likely to present considerable difficulties due to reactive materials (ARD / AMD / PAF / NMD / carbonaceous / saline), and / or physical properties (low shear strength greatly limiting equipment selection for material placement etc.)	ha	\$ 170,000	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities of high geochemical risk, and / or low sheer strength that prohibits economically efficient construction methods. This rate assumes suitable capping material/s are available on site within 10 km, and an average cap thickness of approximately 2.5 m including growth media. This may require additional materials (i.e., capillary breaks, geofabric, etc.), specific material types (e.g., acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised materials must be added separately if required.
8,03a	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	allow	Use alternate rate cell	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
8.03b	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	allow	Use alternate rate cell	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).

Item	Activity Description	Unit	Unit	Prices	Justification and Assumptions for Proposed Rates
Rehabil	itation	7.46			
9.01-	Source, cart and spread growth media (Select Haul Distance from List)	m³	Sele List		If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced.
9,01a	Source, cart and spread growth media - haul distance <1 km	m³	\$	3.26	610 m3/hr with 4 x 657 scrapers at \$430/hr, D10 trimming at \$270/hr 3ha/day at 150mm depth
9.01b	Source, cart and spread growth media - haul distance >1 km but <2 km	m³	\$	3,91	550 m3/hr with 4 x 657 scrapers at \$430/hr, D10 trimming at \$270/hr 3ha/day at 150rnm depth
9.01c	Source, cert and spread growth media - haul distance >2 km but <5 km	m³	\$		D10 (2ha/day) pushing from stockpiled material from 80t exc and artic trucks.
9.01d	Source, cart and spread growth media - haul distance >5 km	m³	\$		Plus 90c/km - assumed 7.5 km, If haul distance is greater than 7.5 km, alternate rate option should be used - \$9.50 + additional km x \$0.90.
9.02-	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	m³	Sele List	ct from	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
9.02a	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (haul distance <1 km)	m³	\$	3.90	D10 push over soft material at \$270/hr 657 Scrapers cut to spoil at \$430/hr, 150BCM/hr/machine, Ancillary watercart and grader at \$0,75c/m3
9,02b	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (haul distance >1 km but <2 km)	m³	\$	5,22	D10 push over soft material at \$270/hr 657 Scrapers cut to spoil at \$430/hr, 130BCM/hr/machine, Ancillary watercart and grader at \$0,75c/m3
9.02c	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (haul distance >2 km but <5 km)	m ³	\$	6,88	D10 Rip and push into stockpile at \$270/hr, 0.2ha/hr, 150mm deep. Excavator (\$220/hr) load Artic Trucks (90c/km)
9_02d	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (haul distance >5 km)	m³	\$	9.13	Generally overhaul rates will be 60c-\$1,2, depending on truck fleet, loaders etc. If haul distance is greater than 7,5 km, alternate rate option should be used - \$9,13 + additional km x \$0.90
9,03	Shotcrete application on cuttings and steep slopes	m²	\$	185,00	This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
9.04	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	ha	\$		16H Grader @ \$212 per hour - ripping in 1 direction only. D10 dozer @ \$332 per hour - deep rip in 2 directions @ 5 m spacing ~3 hr
9.05	Deep rip hard stand / lay down areas	ha	\$	960,00	per hectare,
	Planting mature trees (>15 cm)	allow	S		4 m centres
	Planting tube stock (<15 cm)	allow ha	\$		4 m centres. Rate can fluctuate however this is a suitable standard rate.
9.08	Direct seeding / fertiliser (pasture grass species) Direct seeding / fertiliser (tree or native grass species)	ha	\$		Rate can fluctuate however this is a suitable standard rate.
	Hydro-seeding with straw mulching and bitumen tack	m ²	\$	1.80	Rate can fluctuate however this is a suitable standard rate
	Single application of fertiliser (pasture)	ha	\$	420.00	Assumes 250 kg / ha, These rates have fluctuated over the last few years however in light of current conditions (tower fuel prices, reduced demand etc) this is a suitable standard rate,
9.12	Single application of fertiliser (trees)	ha	\$	140_00	These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
9.13	Spoil amelioration (adding lime / gypsum etc.)	ha	S	860.00	Assumes 2.5 t / ha as an average application rate
9.14	growth media amelioration with biosolids	ha	\$	1,015	Recent experience with agronomy projects.
9,15	Security fence around steep section of high wall	m	\$	55.00	Class 1 cyclone wire (or similar) security fence @ 2.1 m with 3-4 m post spacing - complying with AS1725-2010 - Chain-link fabric security fences and gates.
9.16	Construct no-climb stock fence around rehabilitated areas	m	S	9.50	Standard rate for no-climb stock fencing.
9.17	Construct standard stock fence around rehabilitated areas	m	\$	4.00	
9.18	Purchase and erect warning signs	allow	\$	250,00	Compliance with AS 1319-1994 - Safety signs for the occupational environment - installed every 25 m. D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks
9.19	Supply from external sources virgin excavated natural material (VENM) for growth media.	m³	\$	80,80	(90c/km) from imported stockpile - allow nominal rate of \$70/m3 for imported fill material.
9.20	Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc.	m ³	\$		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - allow nominal rate of \$60/m3 for imported fill material.
	Management	102		100	
10.01	On-site treatment of contaminated water due to high salt (includes removal of metals	ML	\$	3,600	Rate can fluctuate depending on treatment type however this is a suitable
10.02	etc, brine disposal and cost of mobile water freatment unit) On-site treatment of contaminated water due to low pH (incudes removal of metals etc, neutralisation treatments and cost of mobile water treatment unit	ML	\$	1,500	standard rate for current programs at mining operations. Rate can fluctuate depending on treatment type however this is a suitable standard rate for current programs at mining operations.
10.03	Clean water dams to be retained after decommissioning – make safe and minor earthworks	allow	\$	2,500	Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ ~\$200 per hour and pasture grass.
10.04-	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	m³	Sele List	ect from	This item includes the volume of contaminated sediment requiring removal using an excavator, truck and dozer to clean out the dam.
10.04a	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (haul distance <1km)	m³	\$	3,55	80t excavator and 90c/m3 haul with artic trucks, 220m3/hr, two trucks required for short distance + 75c ancillary - excludes any stockpile treatment: no dozer (add 90c/m3 if required).
10.04b	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (haul distance >1km but <2km)	m ³	\$	4.45	80t excavator and 90c/m3 haul with artic trucks, 220m3/hr, three trucks required for short distance + 75c ancillary - excludes any stockpile treatment: no dozer (add 90c/m3 if required).
10.04c	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (haul distance >2km but <5km)	m³	\$	7.25	80t excavator and 90c/m3 haul with artic trucks, 220m3/hr, five trucks required for short distance + 75c ancillary - excludes any stockpile treatment; no dozer (add 90c/m3 if required).
10.04d	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (haul distance >5km)	m³	\$	9,50	If haul distance is greater than 7.5 km, alternate rate option should be used - \$9.50 + additional km x \$0.90.
10,05	Removal of evaporation fans and/or other water transfer and management infrastructure	allow	\$	25,000	Provisional sum for removal of water management infrastructure.
10.06	Exploration sump decommissioning	m³	\$	180.00	Rate based on capacity of sump developed for borehole, Includes filling of sump.
10.07	Water / mud disposal from sump	L	1.5	0.30	Disposal of non-contaminated sediments removed from sump.

Item	Activity Description	Unit	Unit Prices	Justification and Assumptions for Proposed Rates
Mestan.	Name of the second seco			
	Descriptions	m	\$ 2,500	Assumes material is suitable for revegetating and has a reasonable chance
	Repairs and/or stabilisation of new or compromised water course diversion Long term maintenance of water course diversion – Channel constructed through			of stabilising. Assumes maintenance has been kept up and significant works are not
11.02	backfilled material	m	\$ 1,500	required. Assumes maintenance has been kept up and significant works are not
11.03	Long term maintenance of water course diversion – Channel constructed through competent material	m	\$ 750.00	required.
11,04	Installation of rock armouring	m²	\$ 6.00	Assumes competent material is locally available - multiply costs by 2 for sourcing and transporting from offsite location.
Mainter	ance of Rehabilitated Areas			
12,01	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	ha	\$ 900	Rehabilitation maintenance might include re-seeding, watering, fertilising, minor re-shaping, erosion control, inspections/audits - does not include major repair works.
12,02	Pest management on buffer lands, non-disturbed, and rehabilitated areas	ha	\$ 150,00	Feral animal baiting programs if required and waste materials required to be removed.
12.03	Land management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	ha	\$ 400.00	Undisturbed areas within the lease boundary that require land management activities.
12.04a	Minor stabilisation works and maintenance of mine subsidence areas - ripping etc.	ha		D8 Dozer @ \$240 per hour and/or grader @ \$160 per hour. Undertake more substantial works to backfill cracks and/or sink holes (e.g.,
12,04b	Crack filling to repair subsidence impacts	m	\$ 1,485	filling with mulch prior to grouting, grouting, etc.)
12.05a	Water course restoration to repair subsidence impacts	allow	Use altemate rate cell	Undertake more substantial works to remediate water courses (e.g., channel bed repairs, rock bar repairs, swamp stabilisation etc.)
12,05b	Create cut-through to re-establish natural water courses/drainage channels following subsidence	allow	\$ 3,000	Includes all earthworks and revegetation required to re-establish the natural drainage profile of the subsided area.
12.06	Existing rehabilitation repair - minor	ha	\$ 1,200	Areas requiring minor repair - rills, minor growth media replacement,
12.07	Existing rehabilitation repair - moderate	ha	\$ 1,700	Areas requiring moderate repair - rills, significant growth media replacement.
12.08	Existing rehabilitation repair - major	ha	\$ 2,500	Areas requiring major repair - rills, gullies, growth media replacement, some level of additional surface water management.
12.09	Existing rehabilitation repair - total failure of landform	ha	\$ 40,000	Areas that require extensive rehabilitation repair - re-design and re-
400000000	e Items		-	CONSTRUCTION TO HARDOWN.
13.01	The restoration and care and maintenance of items that have heritage significance	allow	Use alternate rate cell	Item for the redistribution of Aboriginal artefacts, preservation of European heritage items or a combination of activities.
Sundry		EVE		
14.01-	Development of an 'Unplanned' Project Closure Plan - for either State Significant or Non State Significant Developments	allow	Select from List	Provisional sum to be used to refine the conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities.
14.01a	Development of an 'Unplanned' Project Closure Plan - State Significant Development	allow	\$ 100,000	Provisional sum to be used to refine the conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities.
14.01b	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development	allow	\$ 40,000	Provisional sum to be used to refine the conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities.
	DRG tender preparation and assessment, stakeholder consultation, risk assessment facilitation and management, statutory reporting and instruments, permitting and compliance requirements, document and data management	allow	Use alternate rate cell	Provisional sum for the NSW Government to prepare tender documentation (i.e. demolition, waste disposal, earthworks, environmental management etc.) manage stakeholders and establish permitting and compliance requirements for closure.
14.03	Site security during closure	yr _e	\$ 75,000	Provisional sum for site security measures required during closure. This includes nightly patrols and first response in the event of an out of hours incident.
14.04	HAZMAT Clean-up - cleaning and decontaminating plant and equipment, chemical storage locations, oil and grease traps, tanks, vessels, and pipe work etc	allow	\$ 100,000	Provisional sum to perform the site clean-up and ensuring the demolition program is not interrupted due to potential contamination of waste streams.
14.05	Removal and disposal of radiation devices	each	\$ 25,000	Provisional sum for removal and disposal of monitoring devices on conveyors using a radiation source (i.e., Americium – 241, Plutonium – 238, Caesium - 137 etc).
	Additional fees for accessing State, Crown or other public lands for rehabilitation/remediation activities	allow	Use alternate rate cell	Provisional sum.
Third F	arty Project Management and Contingencies	1		Assumes an exploration program of 10 or fewer holes and local contractors
15.00	Mobilisation & Demobilisation for exploration programs	Item	\$ 7,000	within 250 km are available to undertake rehabilitation of disturbance generated by dedicated exploration companies. Apply once per exploration pad.
15.00a	Mobilisation & Demobilisation for small mine or quarry	Item	\$ 40,000	May include specialist demolition equipment and/or sultable plant to execute bulk earthworks as required.
15.01	Mobilisation & Demobilisation (Distance to site <150 km)	item	\$ 100,000	May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
15.02	Mobilisation & Demobilisation (Distance to site >150 km but <500 km)	item	\$ 150,000	May include specialist demolition equipment and/or suitable plant to
15.03	Mobilisation & Demobilisation (Distance to site >500 km but <1000 km)	item	\$ 300,000	execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to
		item	\$ 500,000	execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to
15.04	Mobilisation & Demobilisation (Distance to site >1000 km)	_		execute bulk earthworks as required. A contingent amount to account for "unkown unknowns" and areas were
15.05	Contingency	Total	X%	data / details of rehabilitation methods are uncertain. Includes all monitoring post closure execution works and compilation of all
15.06	Post Closure Environmental Monitoring	Total	Х%	monitoring and maintenance data into a final rehabilitation report and submission for regalatory sign-off.
15.07	Project Management and Surveying	Total	Х%	Includes all costs for project management of the closure execution works and post closure management requirements until land and/or tenure relinquishment.



Form ESF2 Rehabilitation Completion and/or Review of Rehabilitation Costs Estimate

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Objection to release of whole document





Form ESF2

Rehabilitation Completion and/or Review of Rehabilitation Cost Estimate

Mining Act 1992 and Petroleum (Onshore) Act 1991

December 2016 | v1.0

More information

For help with lodging this form, or for more information, contact:

Division of Resources and Energy

Environmental Sustainability Unit

Phone +61 2 4931 6590

minres.environment@industry.nsw.gov.au

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The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Industry, Skills and Regional Development or the user's independent advisor.

Privacy statement

This information is collected by the Department of Industry, Skills & Regional Development (NSW Industry, Skills & Regional Development) for the purposes of assessing an application for an authorisation or associated with an authority/title as required by the *Mining Act 1992*, *Mining Regulation 2016*, *Petroleum (Onshore) Act 1991 and Petroleum (Onshore) Regulation 2016*.

This information may also be used by the department to confirm applicant details in the event that subsequent applications are made, and may also be used to establish and maintain databases to assist the department with its work generally.

Except for purposes required by law, the information will not be accessed by any third parties in a way that would identify the person without the consent of that person.

You may apply to the department to access and correct any information the department holds if that information is inaccurate, incomplete, not relevant

When to use this form

This form is to be used by holders of authorisations issued under the *Mining Act 1992* or titles issued under the *Petroleum (Onshore) Act 1991*. In this form, an authorisation or title is referred to collectively as an authority.

This form is to be used by authority holders to:

- Seek formal confirmation from the department that rehabilitation has been successful (i.e. complies with
 the authority conditions; has met the rehabilitation objectives and completion criteria; and that the landholder is
 satisfied with the standard of rehabilitation). This can include partial/progressive rehabilitation or the completion
 of all rehabilitation activities (regardless of whether or not a change to the associated security deposit is also
 sought).
- Seek a review of the security deposit which is required to be provided and maintained to secure funding for the fulfilment of obligations under the authority, including obligations under the authority that may arise in the future. This can include any increase or decrease in security (e.g. where rehabilitation has been partially or fully completed and a partial or full return of the security deposit is sought). (Note: A security deposit is required to be provided and maintained to secure funding for the fulfilment of obligations under the authority, including obligations under the authority that may arise in the future. For further information refer to the department's Rehabilitation Cost Estimate Guidelines).

This form has been prepared and approved in accordance with the *Mining Act 1992*, *Mining Regulation 2016*, *Petroleum (Onshore) Act 1991* and *Petroleum (Onshore) Regulation 2016*. The information requested in this form may not be specifically referenced in the *Mining Act 1992*, *Mining Regulation 2016*, *Petroleum (Onshore) Act 1991* and *Petroleum (Onshore) Regulation 2016*, however its inclusion in the approved form validates the authority of the NSW Department of Industry, Division of Resources and Energy (the department) to request it.

If there is insufficient room in the fields please provide the information as an attachment.

When not to use this form

This form must not be used by authority holders to:

- Seek a review of security that is associated with an application for the renewal/part renewal, transfer or cancellation/part cancellation of an authority. In such case the review of security will be sought in the Rehabilitation Cost Estimate section of the relevant application form. However, this form (Question 5) can be used where rehabilitation associated with an authority has been partially/fully completed and/or a partial/full return of the security deposit is sought.
- Seek a review of security that is associated with a new Exploration Activity. In such cases the review of security will be sought in the Rehabilitation Cost Estimate section of <u>ESF4: Exploration Activities Application</u>. However, this form (Question 5) can be used where rehabilitation associated with an exploration activity has been partially/fully completed and/or a partial/full return of the security deposit is sought.

Further information regarding rehabilitation objectives and completion criteria

Further information regarding rehabilitation objectives and completion criteria for **exploration** is available in the <u>Exploration Code of Practice: Rehabilitation</u>.

Further information regarding rehabilitation objectives and completion criteria for **mining** is available in <u>ESG3: Mining</u> Operations Plan (MOP) <u>Guidelines</u>.

Important notes

Any information or template that is required to accompany this application should be lodged within 10 business days of the lodgement date.

If this application is lodged by any party other than the authority holder (ie. an agent), the department may seek confirmation of that authority and any limits of that authority given to that other party by the authority holder (*Mining Act 1992* section 163F and section 97F of the *Petroleum (Onshore) Act 1991*). The agent will need to complete the declaration at the end of this form and supply evidence of their appointment, if not already supplied to the department.

How to submit this form

- By email: Send an electronic copy of the form including any attachments to minres.environment@industry.nsw.gov.au
- By mail: Mail your form and any attachments to: Division of Resources and Energy, Environmental Sustainability Unit, PO Box 344, Hunter Region Mail Centre NSW 2310.
- In person: Submit your application in person at the Division of Resources and Energy's, Environmental Sustainability Unit office, 516 High Street, Maitland, New South Wales. Office hours are 9.30am to 4.30pm.

How this application will be processed

Once your application has been registered and checked, it will be assessed by the department.

The department will utilise the information provided in this form to determine whether rehabilitation is to the satisfaction of the department, and that it complies with your authority conditions. The department will also utilise the information provided to determine whether the associated security deposit is adequate, including whether the security deposit (or part thereof) can be returned (where relevant). This process may occur following the completion of progressive rehabilitation or at the completion of rehabilitation activities.

•	y wish to attach a	a separate table where th	ere are multiple authorities.	
Authority type and number (e.g. ML123, EL123)	EL 7223	Act authority granted under	eg. Mining Act 1992	
Expiry date	22 February 2016			
Additional autho	ority details			
Provide the authority additional authorities		r; Act authority was grant	ed under and expiry date of any	
Nil				
O Acuthocult	v holder de	taile		
Provide the full name	e of authority hold	der/s and if applicable, the	e ACN or ARBN (for foreign able where there are multiple	
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3 Contact for this application

Any correspondence in relation to this application will be sent to this person. Correspondence may also be issued to the authority holder as well as the authorised agent.

Contact name	
Position held	Environment Manager
Company	Shenhua Watermark Coal Pty Ltd
Postal address	PO 2016 Gunnedah NSW 2380
Landline phone (inc. area code)	
Mobile	
Email	

Your preferred contact method

	Mail
	address which is regularly monitored rather than an individual employee's email address.)
\boxtimes	Email (For companies – consider the suitability of providing a generic company email

Do not use this form to:

- Seek a review of security that is associated with an application for the renewal/part renewal, transfer or cancellation/part cancellation of an authority. In such case the review of security will be sought in the Rehabilitation Cost Estimate section of the relevant application form. However, this form (Question 5) can be used where rehabilitation associated with an authority has been partially/fully completed and/or a partial/full return of the security deposit is sought.
- Seek a review of security that is associated with a new Exploration Activity. In such cases the review of security will be sought in the Rehabilitation Cost Estimate section of Form ESF4: Application to conduct exploration activities. However, this form can be used where rehabilitation associated with an exploration activity has been partially/fully completed and/or a partial/full return of the security deposit is sought. However, this form (Question 5) can be used where rehabilitation associated with an exploration activity has been partially/fully completed and/or a partial/full return of the security deposit is sought

4 Identify the trigger for submission

Note that multiple boxes may be ticked

Application for confirmation that rehabilitation (including partial/progressive rehabilitation or the completion of all rehabilitation) has been successfully completed to the satisfaction of the department / Secretary / Minister (refer to Question 5)
Application for review of a security deposit (e.g. an increase, decrease or where no change is proposed (refer to Question 6)

5 Completion of rehabilitation

Only complete this section to seek formal confirmation from the department that rehabilitation has been successfully completed to the satisfaction of the department (i.e. complied with authority conditions; has met the rehabilitation objectives and completion criteria; and that the landholder is satisfied with the standard of rehabilitation). This can include partial/progressive rehabilitation or the completion of all rehabilitation activities on the authority (regardless of whether or not a change to the associated security deposit is also sought).

	ation Activity Approval details (include dates/reference numbers/project name)
09/34 drilling 09/34 11/25 2011 OUT1	23 Watermark Coal Project: 25 Approval to undertake Category 2 or 3 exploration activity, 5 June 2009 - Stage 1 26, Stage 2 drilling, Stage 3 drilling 27 Extension of Stage 3 Exploration Drilling, 12 July 2010 - Stage 3A drilling 27 Approval to undertake Stage 4 Exploration Drilling and Associated Activities, 11 Ma 27 part of Stage 4 drilling 27 Approval to undertake Shenhua Watermark Exploration Project, 18 June 2012 28 Approval to undertake Shenhua Watermark Exploration Project, 18 June 2012
Indicat	e the type of rehabilitation
☐ Pa	rtial/Progressive Rehabilitation
⊠ Co	mpletion of Rehabilitation
Age of	Rehabilitation Completed
4 to 7	years
Total A	rea of Disturbance of Activity Approval
353,6	25 m2
Total A	rea of Completed Rehabilitation
353,6	25 m2
	g Operations Plan/Petroleum Operations Plan/Rehabilitation Management ng Approval/ Development Consent details (include dates/reference numbers/project name) //Petroleum Operations/Rehabilitation Management Plan Details (include dates/reference
Mining	s/project name)
Indicat	e the type of rehabilitation rtial/Progressive Rehabilitation mpletion of Rehabilitation

Total Area of Disturbance of Plan

otal Area of Compl	ad Pehahilitation	
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5.2 Provide plans

Plans/maps must be provided showing location of rehabilitation activities and areas rehabilitated. As a minimum plans/maps should include authority boundaries; landholder boundaries; land use and location of each rehabilitation area.

Name/Title of plan	Date
Completed Bores by Stage and Type	9 June 2017

5.3 Provide photographs

Photographs of all rehabilitation sites must be provided, including a plan illustrating where the photograph was taken from and its aspect. Photographs should show evidence of: condition of the receiving environment prior to disturbance; activities during operations; rehabilitation activities performed; and progress/completion of rehabilitation.

Plan Reference No.	Name of Plan illustrating where photos were taken	Date
Figure 1	Completed Bores by Stage and Type	9 June 2017

Photo Reference No.	Name/Title of photo and aspect	Date
Refer to Attachment A for a summary of each rehabilitated borehole and the accompanying CD for a copy of the rehabilitation completion checklist and photographic evidence.		

.4. What rehabilitation has been undertaken? 4.1. Rehabilitation of surface disturbance activity rovide below or attach a written statement outlining the rehabilitation activities undertaken for ach surface disturbing activity (for example, revegetation, sealing of boreholes; management of access tracks; water and waste management and disposal; reshaping works and soil manageme ed control; erosion management; ongoing maintenance and monitoring). The surface disturbing activities conducted in EL7223 was undertaken in 4 stages of exploration that misisted of drilling HQ cored and non-cored boreholes, line of oxidation (LOX) non-cored shallow borehole and large diameter cored boreholes. The rehabilitation activities undertaken consisted of sealing all borehole or groundwater monitoring bores or plezometers which have been licenced with the NSW Office of Water to final landform was shaped where required by obscarbackhove to mimic the pre-exploration landform to sure it is safe, stable and non-polluting. All disturbed areas were revegetated and seeded using species insistent with the local environment and suitable for future land use (le agriculture). All equipment, sample biblish, drilling water/slurry and drill cuttings were collected and removed offsite. Surface water contructures to minimise the potential for erosion and sedimentation were installed where appropriate and habilitated upon borehole completion. All formed tracks were reshaped and seeded where required. 4.2. Evidence of meeting rehabilitation objectives and completion criteria provide evidence describing how the rehabilitation has met each of the rehabilitation objectives are originally associated enrification. Further information regarding rehabilitation objectives and completion criteria and associated enrification. Further information regarding rehabilitation objectives and completion criteria for the rehabilitation objectives and completion criteria for mining is available in the Examples may include ecological, geotechnical and site remedia			
rovide below or attach a written statement outlining the rehabilitation activities undertaken for ach surface disturbing activity (for example, revegetation; sealing of boreholes; management of access tracks; water and waste management and disposal; reshaping works and soil manageme ed control; erosion management; ongoing maintenance and monitoring). The surface disturbing activities conducted in EL7223 was undertaken in 4 stages of exploration that misisted of drilling HO cored and non-cored boreholes, line of oxidation (LOX) non-cored shallow borehold large diameter cored boreholes. The rehabilitation activities undertaken consisted of sealing all borehol cement grout mixture in accordance with Department of Trade and Investments EDG01. Borehole Sealing and Investments EDG01. Borehole Sealing and Investments EDG01. Borehole Sealing and Investments EDG01. Borehole Sealing are undertaken consisted of sealing all borehole acquirements on Land: Coal Exploration (April 2012), with the exception of constructing selected borehole for final landform was shaped where required by bobcat/backhoe to mimic the pre-exploration landform to issure it is safe, stable and non-polluting. All disturbed areas were revegetated and seeded using species missistent with the local environment and suitable for future land use (is agriculture). All equipment, sample bibish, drilling water/slurry and drill cuttings were collected and removed offsite. Surface water control ructures to minimise the potential for erosion and sedimentation were installed where appropriate and habilitated upon borehole completion. All formed tracks were reshaped and seeded where required modificated by a provide evidence describing how the rehabilitation objectives and completion criteria. **Cevidence of meeting rehabilitation objectives and completion criteria and associated erification* should be attached). **Eurther information regarding rehabilitation objectives and completion criteria for mining is available in the **Europration Criteria** and **Europ			
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nsisted of drilling HQ cored and non-cored boreholes, line of oxidation (LOX) non-cored shallow boreholes to large diameter cored boreholes. The rehabilitation activities undertaken consisted of sealing all borehole to cement grout mixture in accordance with Departmet of Trade and Investments EDG01: Borehole Sealizquirements on Land: Coal Exploration (April 2012), with the exception of constructing selected borehole of groundwater monitoring bores or piezometers which have been licenced with the NSW Office of Water le final landform was shaped where required by bobcat/backhoe to mimic the pre-exploration landform to sure it is safe, stable and non-polluting. All disturbed areas were revegetated and seeded using species missistent with the local environment and suitable for future land use (ie agriculture). All equipment, sample bish, drilling water/slurry and drill cuttings were collected and removed offsite. Surface water control ructures to minimise the potential for erosion and sedimentation were installed where appropriate and habilitated upon borehole completion. All formed tracks were reshaped and seeded where required. 4.2 Evidence of meeting rehabilitation objectives and completion criteria rovide evidence describing how the rehabilitation has met each of the rehabilitation objectives and completion criteria and associated enfication* should be attached). 6. Further information regarding rehabilitation Objectives and Completion Criteria and associated enfication* should be attached). 6. Further information regarding rehabilitation objectives and completion criteria for mining is available in the Exploration contraction and require the attachment of specialist reports/advice confirming that specific aspects of the completion criteria per met. Examples may include ecological, geotechnical and site remediation reports. 7. Has borehole/petroleum well sealing and/or backfilling been undertaken? 8. No. Provide justification/further details below (append separate documents/reports as required).	ach s ccess	surface disturbing activity (for example, revegetation; sealing of borehole s tracks; water and waste management and disposal; reshaping works a	s; management of
Provide evidence describing how the rehabilitation has met each of the rehabilitation objectives a completion criteria. Of the relevant exploration/mining/petroleum approvals and the rehabilitation on ditions of the authority (Rehabilitation Objectives and Completion Criteria and associated erification. Should be attached). Further information regarding rehabilitation objectives and completion criteria for exploration is available in the Exploration Coccuractice: Rehabilitation. Further information regarding rehabilitation objectives and completion criteria for mining is available in Exploration objectives. Verifications Plan (MOP) Guidelines. Verification may require the attachment of specialist reports/advice confirming that specific aspects of the completion criteria even met. Examples may include ecological, geotechnical and site remediation reports. 5.5 Has borehole/petroleum well sealing and/or backfilling been undertaken? Not applicable. Proceed to Question 5.6. No. Provide justification/further details below (append separate documents/reports as required).	insiste id larg th cer equire to gro ne fina isure insiste bbish	ed of drilling HQ cored and non-cored boreholes, line of oxidation (LOX) non-co- ge diameter cored boreholes. The rehabilitation activities undertaken consisted of ment grout mixture in accordance with Departmet of Trade and Investments ED- ements on Land: Coal Exploration (April 2012), with the exception of constructing bundwater monitoring bores or piezometers which have been licenced with the National landform was shaped where required by bobcat/backhoe to mimic the pre-expit is safe, stable and non-polluting. All disturbed areas were revegetated and se- ent with the local environment and suitable for future land use (ie agriculture). And crilling water/slurry and drill cuttings were collected and removed offsite. Surfaces to minimise the potential for erosion and sedimentation were installed where	red shallow borehole of sealing all borehole G01: Borehole Sealing selected boreholes ISW Office of Water. bloration landform to eded using species II equipment, sample ce water control appropriate and
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Yes Complete details below and attach reports as relevant.	rovidomplondit erificate for to	de evidence describing how the rehabilitation has met each of the rehabilitetion criteria of the relevant exploration/mining/petroleum approvals and tions of the authority (Rehabilitation Objectives and Completion Criteria as eation* should be attached). To Attachment B Trinformation regarding rehabilitation objectives and completion criteria for exploration is available as Rehabilitation. Further information regarding rehabilitation objectives and completion criteria for Operations Plan (MOP) Guidelines. Cation may require the attachment of specialist reports/advice confirming that specific aspects of et. Examples may include ecological, geotechnical and site remediation reports. Has borehole/petroleum well sealing and/or backfilling undertaken?	itation objectives and the rehabilitation and associated in the Exploration Coordining is available in Estimated in Estima
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Proper	ty Details	Landholder / Contact	Telephone	Attached?
		tation Statement (refer to Appe		
All dist	urbance activities have been	undertaken on land owned by Sh	enhua Watermark Coal	Pty Ltd.
Provid	e any further details below	1.		
	No			
\boxtimes	Yes			
	Landholder Rehabilitation Stater	er satisfaction with completed rehabilitation ment provided in Appendix A can be use formance must also be to the satisfaction	d for this purpose. Notwithsta	anding, rehabilitatio
5.6	Is the landholder/s	satisfied with the rehab	ilitation?	
	Refer to Attachment A			
	Provide details of sealin documents/reports as re	g and/or backfilling works unde equired).	ertaken (append sepa	rate
	Telephone			
	Address			
	Contractor Name	Refer to Attachment A and the	LAURENT TO SEE WASTE THE CONTRACTOR	NAME OF THE OWNER, WHEN

6 Rehabilitation cost estimate

Only complete this section to seek a review of the security deposit.

Do not complete Section 6 of this form in the following circumstances:

- If you are seeking formal confirmation from the department that rehabilitation has been successful and no change to the security deposit is being sought.
- If you are seeking a review of security that is associated with a Renewal/Part Renewal, Transfer, Cancellation or Part
 Cancellation of an authority. In such cases the review of security will be sought in the Rehabilitation Cost Estimate section of
 the relevant Renewal/Part Renewal, Transfer, Cancellation or Part Cancellation Application Form.
- If you are seeking a review of security that is associated with a new Exploration Activity. In such cases the review of security will be sought in the Rehabilitation Cost Estimate section of Form ESF4: Exploration Activities Application.

All authority holders must provide an estimate of rehabilitation costs. This estimate will be considered by

The department is responsible for ensuring that the people of NSW do not incur a financial liability as a result of coal, mineral and petroleum exploration and production activities. Under 12A of the Mining Act 1992, and Part 10A of the Petroleum (Onshore) Act 1991, all authority holders engaged in these activities are, therefore, required to lodge a security deposit.

The security deposit must cover the Government's full costs for rehabilitation in the event of default

PUB16/541 Version 1.0, December 2016

the department when determining the security deposit amount.

Before answering this question, read the Rehabilitation cost estimate guidelines and note the following:

6.1	What is the total renabilitation cost estimate?	

The estimate should cover the rehabilitation for all exploration/mining/petroleum production operations. \$ Total rehabilitation cost estimate What method have you used to calculate the rehabilitation cost estimate? Attach 6.1.1 your cost calculation to this application. Department's rehabilitation cost calculation tool. Other – use the field below to describe the tool or cost guide you have used. What approvals/plans have you based the rehabilitation cost estimate on? 6.1.2 (Provide date of Approval Letter(s) and Reference where possible) Note that multiple boxes may be ticked **Exploration Activity Approvals** Mining Project Approval/Development Consent Mining/Petroleum Operations Plan/Rehabilitation Management Plan What period is covered by the estimate? 6.1.3 Current disturbance at date of application; or insert date (e.g snapshot in time) insert start/end date (e.g. period of maximum Period covered by the Estimation distrubance) What security is currently held by the department? 6.2

Current security held by the department

6.3 Does this rehabilitation cost estimate propose a reduced rehabilitation liability for the authority?

lf the i amoui	rehabilitation liability has been reduced, you may claim for a reduction in the security deposit nt.
	Yes. Rehabilitation liability has been reduced due to completion of rehabilitation. Ensure you have completed Section 5 of this form.
	Yes. Rehabilitation liability has been reduced due to other reasons. Provide further details below.
	No

7 Checklist of items to be included with this application

List any supporting documentation attached to this application in the table below:

Item	Re	eference
Evidence of Rehabilitation Completion as per list below:		Question 5
Plans/maps showing location of rehabilitation activities and areas rehabilitated. Plans/maps to include: authority boundaries landholder boundaries land use location of each rehabilitation area		Question 5
Photographs of all rehabilitation sites to evidence:		Question 5
A written statement outlining the rehabilitation activities undertaken for each surface disturbance (for example, sealing of boreholes; management of access tracks; water and waste management and disposal; reshaping works and soil management; weed control; erosion management; ongoing maintenance and monitoring).		Question 5
Written evidence as to how the rehabilitation has met each of the rehabilitation objectives and completion criteria of the relevant exploration/mining/production approvals and the rehabilitation conditions of authority (This may require the attachment of specialist reports/advice confirming that specific aspects of the completion criteria have been met. Examples may include ecological, geotechnical and site remediation reports).		Question 5
Landholder Rehabilitation Statement (where applicable)		Question 5 and Appendix A
Rehabilitation Cost Estimate documentation (Calculations to evidence how the rehabilitation cost estimate is derived)		Question 6
For agents only – evidence of appointment as agent by the authority holder/s		Question 8
Additional information such as specialist verification reports (provide list below)		

8 Declaration

This form should be signed by the authority holder/s or an authorised representative.

I/We certify that the information provided in this application is true and correct. I/We understand that under Part 5A of the *Crimes Act 1900*, that knowingly giving false or misleading information is a serious offence; and under Section 378C of the *Mining Act 1992* or Section 135 of the *Petroleum (Onshore) Act 1991*, any person who provides information that the person knows to be false or misleading is guilty of an offence, for which they may be subject to prosecution.

Declaration by authority holder/s

Authority Holder Name	
Position/title	
Date	29/6/2017
Signature	
Authority Holder Name	
Position/title	
Date	
Signature	
Authority Holder Name	
Position/title	
Date	
Signature	

Or

Declaration by agent authorised to act for this authority holder

Provide evidence of appointment by the authority holder.

Name	
Position/title	
Date	
Signature	

Document control

Authorised by: Group Director, Operations and Programs

RM8 Reference: PUB16/541

Amendment schedule		
Date	Version #	Amendment
1 December 2016	1.0	This new form merges two previous forms know as Form ESF2: Rehabilitation Cost Estimate Submission and Form EDG13: Exploration Rehabilitation and Relinquishment Report. Deletion of separate Statutory Declaration from Form EDG13.

Appendix A: Landholder Rehabilitation Statement

When signed, this statement confirms that land disturbed during the course of exploration/mining/petroleum production activities has been rehabilitated to the satisfaction of the affected landholder/occupier.

Provided that the authority holder has rehabilitated the exploration/mining/petroleum production disturbance on your property to your satisfaction, sign and return this form to the authority holder. The authority holder will attach it to the submission form required by the Department. The information will be used by the department, along with other relevant information, to determine the authority holder's compliance with the obligations of the exploration/mining/petroleum production authority.

If rehabilitation is **not** to your satisfaction, **do not** sign this form, and discuss outstanding issues with the authority holder. If you cannot reach agreement or you have any queries, contact the department.

1 For authority holder to complete

Date:

Authority Details	
Authority number (e.g. EL01, ML02, PEL03)	
Name of authority holder	List all holders of the authority in full - organisation name and ACN/ABN. List all holders of the authority in full - individual details: Title, Given Name/s and Family Name
ACN/ARBN	
Contact Name	
Registered Street Address	
Postal Address	
Site Name	Insert Site Name of the exploration / mining / production area
Affected Property Name:	Insert affected property name(s)
Affected Property Address/Description:	Insert property address/Lot and DP No's.
I am satisfied wit	ler to complete th the state in which the authority holder has left my standard of rehabilitation which has been achieved.
Additional Comments:	
Landholder/Occupier Name:	
Property Name:	Insert affected property name(s)
Property Address/Description	Insert property address/Lot and DP No's.
Telephone:	Email:
Signed:	



DOCUMENT 17

Attachment B – EL7223 Rehabilitation Objectives and Completion Criteria June 2017

Objection to release of whole document

Table 1 EL7223 rehabilitation objectives and completion criteria

COMMENTS	N/a	There is no evidence of adverse environmental effects outside the disturbance footprint of the exploration program	All exploration borehole sites and former temporary	accesses have been inspected and are at negligible risk of erosion. All sites are stable and there is no evidence of sheet, rill, gully or tunnel erosion.		base		nited eep	from
COMPLETION CRITERIA	N/a	There is no evidence of adverse environmental effects outside the disturbance footprint of the exploration program	There is:	 Minimal erosion that would require moderate to significant ongoing care and maintenance works 	 No areas of active gully areas 	No evidence of excessive sediment build-up (from sheet erosion) at the base of slopes	 No evidence of tunnel erosion 	 No active rilling and rill erosion is limited to isolated areas of up to 200 mm deep 	No active scouring where the runoff from
OBJECTIVES*	(a) The exploration licence holder must rehabilitate any land (including water) disturbed by, or as a result of, prospecting operations under this exploration licence to a stable and permanent form so that:	(i) There is no adverse environmental effect outside the disturbed area	(ii) The land is properly drained	and protected from soil erosion					
LAND USE GOAL	Native Ecosystem or Agricultural Landuse								

LAND USE GOAL	OBJECTIVES*	COMPLETION CRITERIA	COMMENTS
		natural channels.	
	(iii) The land is not a potential source of pollution	Vegetation cover is adequate to reduce the risk of soil erosion	Post-rehabilitation inspections have confirmed that vegetation cover at each rehabilitated borehole site is consistent with the surrounding vegetation and is adequate to reduce the risk of soil erosion. No visible signs of erosion have been observed at any boreholes sites or former temporary accesses.
	(iv) The land is compatible with the surrounding land use requirements	 The re-established topsoil/subsoil substrate is capable of supporting the targeted pasture/cropping regime on a sustained basis. Cropping/pasture establishment is consistent with the range of species utilized within the region. Cropping/pasture establishment is in good health and provides adequate cover. 	The re-established topsoil/subsoil substrate is consistent with the surrounding environment and observations of revegetation indicate that each borehole site and former temporary access is capable of supporting pasture and cropping species consistent with the current land use (grazing and cereal cropping).
	(v) The landforms, soils, hydrology and flora require no greater maintenance than that in, or on, the surrounding land	 There is no significant weed infestation, such that weeds do not comprise a significant portion of species in any stratum Topsoil or a suitable alternative has been applied in a manner to maximize viability of revegetation substrate. 	 No significant weed infestations have been observed at any of the exploration boreholes sites or along former temporary accesses. No erosion issues are present. Vegetation is well established throughout the disturbance areas.
	(vi) The land does not pose a threat to public safety	 There are no exposed voids or boreholes that would pose a threat to public safety. There is no infrastructure remaining that would post a threat to public safety. 	 All boreholes and been sealed and rehabilitated and do not pose any threat to public safety. Infrastructure remaining is limited to

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LAND USE GOAL	OBJECTIVES*	COMPLETION CRITERIA	COMMENTS
			piezometers and locked groundwater monitoring monuments, which do not pose a threat to public safety. There are no open voids or boreholes, nor is there any infrastructure that poses a threat to public safety.
	 (vii) In cases where vegetation has been removed or damaged: (A) where previous vegetation was native, species used for revegetation are endemic to the area; or (B) where the previous vegetation was not native, species used for revegetation are appropriate to the area; and (C) any revegetation is of an appropriate density and diversity, to the satisfaction of the Director-General. 	Revegetation areas contain flora species assemblages characteristics of species found within the region and will provide fauna habitat value in the future.	Post-rehabilitation inspections indicate that the flora species characteristics at rehabilitated borehole sites are generally consistent with those found in the surrounding environment. Rehabilitated borehole sites are expected to provide fauna habitat value in the future.
	(b) Any topsoil that is temporarily removed from an area of prospecting operations must be stored, maintained and	 Topsoil or a suitable alternative has been applied in a manner to maximize the viability of revegetation substrate. 	Topsoil has been applied to all rehabilitated boreholes sites and vegetation is well established within the reinstated topsoil.

LAND USE GOAL	LAND USE OBJECTIVES* GOAL	COMPLETION CRITERIA	COMMENTS
	returned as soon as possible in a manner acceptable to the Director-General.		
	(c) Any shafts, drill holes and excavations, that have been abandoned as a result of previous mining or prospecting operations, and which have been opened up or used by the exploration licence holder are subject to the conditions of the exploration licence as if the shafts, drill holes and excavations were created by the holder of this exploration licence.	All abandoned drill holes or excavations have been rehabilitated	All abandoned boreholes and excavations have been rehabilitated.
	(d) All rehabilitation of surface disturbance resulting from prospecting operations under this exploration licence must be completed before the expiry of this exploration licence or immediately following cancellation of this exploration licence.	 Rehabilitation of surface disturbance has been completed prior to expiry of the exploration licence or immediately following cancellation of the exploration licence. 	Rehabilitation of boreholes was completed in 2012. EL7223 expired in 2016.

*rehabilitation objectives have been derived from Condition 21 of EL7223

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