**November 2020**

Mining Operation Plan requirements

Under Mining Lease and Class D Puddling claim conditions, the applicant/claim holder is required to develop a Mining Operations Plan (MOP) to the satisfaction of the Department of Regional NSW (the Department). Puddling activities cannot commence until an approved MOP is in place. All puddling activities must be undertaken in accordance with the approved MOP.

A MOP may be for five (5) years or, if convenient to both the Department and the claim holder, an agreed lesser period.

MINING LEASE 2010 condition No. 3 for Lightning Ridge, the MOP must:

* identify areas that will be disturbed by mining operations
* detail the staging of specific mining operations
* identify how the mine will be managed to allow mine closure
* identify how mining operations will be carried out in order to prevent and or minimise harm to the environment
* reflect the conditions of approval under:
1. the *Environmental Planning and Assessment Act 1979*
2. the Protection of the *Environment Operations Act 1997*
3. and any other approvals relevant to the development including the conditions of this lease; and
4. have regard to any relevant guidelines adopted by the Director-General.

CLASS D – PUDDLING claim condition No. 2 states:

Mining Operations Plans

* Operations must be conducted in accordance with a Mining Operations Plan (incorporating an Environmental Management Plan and Mine Closure Plan) approved by an Inspector Environment or unless directed in writing by the Mines Safety Officer or an Inspector Environmental.
* An application for approval of the proposed Mining Operations Plan must be lodged and approved before operations commence, and:
1. must describe the means by which it is proposed that the environment is to be protected in the course of the conduct of operations in relation to:
2. the disposal of tailings, silt or like substance and other waste products (including toxic wastes) arising from the conduct of operations
3. the minimisation of pollution of air and water and the visual impact of the operations
4. the minimisation of noise pollution
5. the prevention of soil erosion
6. the rehabilitation of any land on which operations are conducted
7. must contain the following particulars in relation to the land on which operations are to be conducted:
8. describe the nature, scale and extent of the proposed operations
9. the approximate depth of top soil
10. the nature of the vegetation
11. the contours of the land as they were immediately before the operations began.
12. the manner in which it is proposed to remove, store and replace the topsoil and the subsoil
13. a site plan showing existing features, drainage channels, buildings, roads, dams, etc
14. a site plan showing the proposed location of any processing or puddling plant, water storage areas, stockpiles, drainage channels, silt traps and all ancillary facilities
15. the nature of the vegetation proposed to be planted in the course of the rehabilitation of the land
16. the contours of the land as they are proposed to be after rehabilitation of the land has been completed
17. an assessment of the environmental impact on the area.

Plan guidelines

Please provide three (3) sketch plans of the puddling site. Plans may be derived from a convenient base map/plan with activity areas and features drawn by hand provided there is sufficient accuracy and detail to adequately describe activities and their impact. If contours are not shown, slopes and drainage lines must be clearly marked. The scale should show sufficient detail to review operations and rehabilitation. For most puddling sites A3 or A4 or sized plans will be appropriate. Also provide photographs and diagrams where appropriate. All plans must show:

* the name of the lease
* a graphical scale
* boundaries of leases
* cadastral information (land ownership boundaries)
* a title block showing the date of preparation of the plan, title and number
* the signature of the person responsible for the plan.

Plans required

Plan 1: Pre MOP

Show the state of the site at the **commencement** of the MOP period including:

* site access and relationship to the nearest main road and town
* natural features including swamps, rivers, creeks, streams or watercourses
* existing non puddling developments including roads, fences, transmission lines
* vegetation and land use boundaries; eg cropping, pasture, forest, undisturbed flora/fauna habitat
* derelict land from activities which occurred before the grant of the present mine lease
* neighbouring residences, within and adjacent to the lease(s) area.

Plan 2: End of MOP

Show the proposed state of the site at the **end** of the MOP period including:

* the extent of all processing, waste emplacement, ore/product stockpile, soil stockpiles and other infrastructure features
* constructed water dams, silt dams, number of agitators, drainage lines, water management and erosion control structures, water monitoring sites
* the slope and shape of rehabilitated land
* vegetation on rehabilitated land and boundaries of vegetation types.

Plan 3: Final Rehabilitation

Show the anticipated state of the site after rehabilitation has been completed and the lease prepared for title relinquishment including:

* natural features including swamps, rivers, creeks, streams or watercourses
* pre operation developments including roads, fences, transmission lines
* boundaries and slopes of disturbed and rehabilitated land
* vegetation type and land use boundaries of disturbed and undisturbed land
* post operation land use capability of undisturbed and rehabilitated land
* constructed drainage lines, water management and erosion control structures;
* remaining voids/pits and remaining disturbed land
* all site related infrastructure to remain on site after site closure
* fences, bunds and other public, fauna/ and stock safety features.

*Where site closure will be completed during this MOP period, plans 2 and 3 may be combined*

# Mining Operations Plan for puddling sites

## Title details

|  |  |
| --- | --- |
| Name of the affected land holder |       |
| Mineral lease number |       |
| Western Lands lease number |       |
| Name of leaseholder |       |
| Name of mine operator (if different) |       |
| Postal address |       |
| Phone |       | Email |       |

**Purpose of the operation**

Is this a new operation or renewal of an existing operation? [ ]  New [ ]  Renewal

Outline the reason for this activity

|  |
| --- |
|       |

## Consents and licences

|  |  |
| --- | --- |
| Local Area Council |       |
| Development consent  | [ ]  Granted [ ]  Required but not granted[ ]  Not required |
| Do licences granted by other agencies apply to the mine activities? [ ]  Yes [ ]  No[ ]  EPA[ ]  OEH[ ]  NOW[ ]  Dam Safety [ ]  Other (please specify):       |

## MOP period

|  |  |
| --- | --- |
| MOP commencement date |       |
| MOP completion date (nominal) |       |

## Signatures

|  |  |
| --- | --- |
| Signature: Leaseholder | Signature: Environmental officer |
|  |  |
| Name |       | Name |       |
| Date |       | Date |       |

# Water storage dam

|  |  |  |
| --- | --- | --- |
| Size |       | square metres (m2) |
| Excavated depth |       | meters (m) |
| Height of dam wall |       | meters (m) |
| Maximum storage capacity |       | cubic metres (m3) |
| Size of catchment |       | hectares or square kilometres (H/km2) |

Method of construction:

|  |
| --- |
|       |

# Silt storage dam/s

|  |  |  |
| --- | --- | --- |
| Size |       | square metres (m2) |
| Excavated depth |       | metres (m) |
| Height of retaining walls – stage 1 |       | metres (m) |
| Height of retaining walls – stage 2 |       | metres (m) |
| Height of retaining walls – other stages |       | metres (m) |
| Total maximum height |       | metres (m) |
| Dam designed by: |       |

Method of construction (include all stages):

|  |
| --- |
|       |

|  |  |
| --- | --- |
| Storage capacities | Storage life |
| Stage I |       | cubic metres (m3) |       | years |
| Stage II |       | cubic metres (m3) |       | years |
| Other stages |       | cubic metres (m3) |       | years |
| Maximum storage |       | cubic metres (m3) | maximum       | years |

Note: A minimum of 1 metre of freeboard must be maintained throughout the life of the operation.

Topsoil is required to be stripped from all areas affected by the construction of dams, silt dams, stockpile areas, etc. and stored in a manner that prevents water and wind erosion.

Sufficient topsoil will be required to be stockpiled to provide a cover over the silt dams and banks upon completion of operations.

# Area

|  |  |
| --- | --- |
| Total area of lease (hectares) |       |
| Total area to be affected by puddling operation and dam (hectares) |       |

What is the area currently used for?

|  |
| --- |
|       |

What has the area been used for previously?

|  |
| --- |
|       |

# Clearing requirements

Is any clearing of timber required on the site for the construction of the dams, silt dams and/or access roads, etc.? [ ]  Yes [ ]  No

N.B. If clearing is required within the boundaries of the Lease, the consent of the owner or occupier of the land must first be obtained.

# Buildings

Will a caretaker’s residence be required? [ ]  Yes [ ]  No

**If yes, approval will be required from the Walgett Shire Council.**

[ ]  Supply a sketch of the proposed dwelling, including: the dimensions, i.e. width, height, length; and the construction materials for roofing, framework, walls and floor.

Will a machinery shed be required? [ ]  Yes [ ]  No

If a machinery shed is proposed, provide the following details:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Enclosed area = |       | metres long x |       | metres wide |
| Unenclosed area = |       | metres (m) |       | metres wide |
| Height = |       | metres (m) |
| Construction materials | Roof: |       |
| Walls: |       |
| Frame: |       |
| Floor: |       |

# Access tracks

Has the route been discussed with, and agreed to, by the landholder? [ ]  Yes [ ]  No

***If yes provide the written approval of the landholder.***

***If approval is not obtained from the landholder then the lease applicant will need to seek a Right of Way under Section 164 or Section 211 of the Mining Act 1992.***

Will clearing be required for access tracks? [ ]  Yes [ ]  No

What width of clearing is proposed?       metres

N.B. If the width of clearing exceeds 30 metres, then a clearing approval from the Western Catchment Management Authority must first be obtained by the landholder of the property.

Method and materials for constructing the road:

|  |
| --- |
|       |

What steps will be taken to reduce dust from the road?

|  |
| --- |
|       |

# Treatment capacity

|  |  |
| --- | --- |
| Planned number of agitators/puddling sites |       |
| Estimated daily through-put per agitator/puddler (m3) |       |
| Estimated number of days operating per annum |       |
| Estimate total volume of silt per annum (m3) |       |

N.B. Compare the volume of silt produced per annum with the designed capacity of the silt dams.

# Water management

Sources of water:

|  |  |  |
| --- | --- | --- |
| General catchment | [ ]  Yes [ ]  No | (If yes, see below) |
| Bore | [ ]  Yes [ ]  No | (If yes, see below) |
| Coocoran Lake | [ ]  Yes [ ]  No  | (If yes, see below) |
| Other | [ ]  Yes [ ]  No | Please specify:       |
| If using a **bore**, give details of:Depth:       (metres)Flow rate:       (litres per second)N.B A bore requires a Licence from the NSW Office of Water. |
| If accessing water from **Coocoran Lake**, give estimate of volume demand:       (megalitres per annum)N.B Pumping from the Lake may require a licence from the NSW Office of Water and applicants should contact that Department before any pumping is commenced. |
| If the **general catchment** is to be used, then:(a) Has the impact on other users in the catchment zone been evaluated? [ ]  Yes [ ]  No (b) Has the capacity of the catchment been assessed in relation to the proposed scale of puddling?[ ]  Yes [ ]  No**If yes to (a) and/or (b), attach details. If no to (a) and/or (b), indicate who will carry out these evaluations.**      |

# Power requirements

Detail the source of power to be used for

|  |  |
| --- | --- |
| Water pumping: |       |
| Operating agitators/puddling: |       |

# Expenditure

|  |  |
| --- | --- |
| Initial capital expenditure | $       |
| Annual operating expenditure | $       |

# Waste and pollution management

Will silt be periodically removed from the dams? [ ]  Yes [ ]  No

If yes, what will be the method and volumes of disposal (when, how and where to):

|  |
| --- |
|       |

What steps will be taken to prevent contaminated waters discharging from the Lease area?

|  |
| --- |
|       |

N.B. A minimum freeboard of one (1) metre at all times will be required to prevent overtopping during major storm events.

# Operating hours

Indicate times and tick the days on which operations will be conducted:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Start time | AM/PM |  | Finish time | AM/PM |
| Haulage |       | [ ]  AM [ ]  PM | to |       | [ ]  AM [ ]  PM |
| Mon [ ]  Tues [ ]  Wed [ ]  Thur [ ]  Fri [ ]  Sat [ ]  Sun [ ]  |
|  | Start time | AM/PM |  | Finish time | AM/PM |
| Puddling |       | [ ]  AM [ ]  PM | to |       | [ ]  AM [ ]  PM |
| Mon [ ]  Tues [ ]  Wed [ ]  Thur [ ]  Fri [ ]  Sat [ ]  Sun [ ]  |

How will this operation impact upon other local operations?

|  |
| --- |
|       |

How does the operation integrate with mining and other activities in the region?

|  |
| --- |
|       |

Will this operation reduce impacts that have occurred on the site previously? [ ]  Yes [ ]  No

# Public health and safety

What methods will be used to prevent or restrict public access to the area?

|  |
| --- |
|       |

What methods will be used to prevent stock and wildlife accessing the area?

|  |
| --- |
|       |

# Rehabilitation

Details are required of the progressive and final rehabilitation program for areas affected by the proposed development. These details should also be described on **Plan 3**.

The areas to be considered for rehabilitation are the dam, the silt traps, the access roads, the opal stockpile areas, the puddlers and any buildings and structures.

The aim of rehabilitation is to return the land for a useful purpose in such a way it is stable, erosion and pollutant free and provides no ongoing hazards to stock and the community.

What will be the intended use of the land on completion of puddling operations?

|  |
| --- |
|       |

Will the water storage facility remain? [ ]  Yes [ ]  No

If yes, has the owner and/or occupier agreed? [ ]  Yes [ ]  No

***If yes provide the written approval of the landholder.***

Will the access roads remain? [ ]  Yes [ ]  No

If yes, has the owner and/or occupier agreed? [ ]  Yes [ ]  No

***If yes provide the written approval of the landholder.***

What rehabilitation is proposed for the silt dam?

|  |
| --- |
|       |

N.B. The minimum requirement for the silt dam/s is for it to be self-draining and the banks battered to an angle to allow subsoil and topsoil to be respread, so as to allow the establishment of a permanent vegetation cover.

What rehabilitation is proposed for any buildings/infrastructures?

|  |
| --- |
|       |

## Declaration

I declare that to the best of my knowledge, the information provided in this form, and any attachment to this form, is true and correct in every detail.

|  |
| --- |
| Claim holder #1 |
| Name |       |
| Signature  |  | Date |       |

|  |
| --- |
| Claim holder #2 |
| Name |       |
| Signature  |  | Date |       |

Note: Giving false or misleading information is a serious offence under section 268 of the Work Health and Safety Act 2011, and Part 5A of the Crimes Act 1900.

## Submitting the form

* **By email:** Send an electronic copy of the form including any attachments to nswresourcesregulator@service-now.com
* **By mail:** Mail your form and any attachments to NSW Resources Regulator, Compliance Coordination Unit, PO Box 344, Hunter Regional Mail Centre, NSW, 2310
* **In person:** The Lightning Ridge office of Mining, Exploration and Geoscience, Regional NSW, Lot 60 Morilla Street, Lightning Ridge, NSW.

This form may not be submitted to other offices of NSW Planning, Industry and Environment or Regional NSW.

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