

Environment Protection Licence

Licence - 20020

Licence Details	
Number:	20020
Anniversary Date:	14-November

Licensee
MANUKA RESOURCES LTD
GRAFTON BOND BLDG LVL 5 201 KENT ST
SYDNEY NSW 2000

Premises
"MANUKA"
SHIRE ROAD 13 (COBAR- BEDOOBA ROAD)
COBAR NSW 2835

Scheduled Activity
Crushing, grinding or separating
Metallurgical activities
Mineral processing
Mining for minerals

Fee Based Activity	Scale
Crushing, grinding or separating	> 500000-2000000 T annual processing capacity
Metal processing	0-100000 T annual processing capacity
Mineral processing	> 500000-2000000 T annual processing capacity
Mining for minerals	> 500000-2000000 T annual production capacity

Region
Central West
L102, 346 PANORAMA AVENUE
BATHURST NSW 2795
Phone: (02) 6333 3800
Fax: (02) 6333 3809
PO Box 1388
BATHURST NSW 2795



Environment Protection Licence

Licence - 20020

INFORMATION ABOUT THIS LICENCE	4
Dictionary	4
Responsibilities of licensee	4
Variation of licence conditions	4
Duration of licence	4
Licence review	4
Fees and annual return to be sent to the EPA	4
Transfer of licence	5
Public register and access to monitoring data	5
1 ADMINISTRATIVE CONDITIONS	6
A1 What the licence authorises and regulates	6
A2 Premises or plant to which this licence applies	6
A3 Other activities	7
A4 Information supplied to the EPA	7
2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND	7
P1 Location of monitoring/discharge points and areas	7
3 LIMIT CONDITIONS	11
L1 Pollution of waters	11
L2 Concentration limits	11
L3 Waste	12
L4 Noise limits	12
L5 Blasting	13
L6 Potentially offensive odour	14
4 OPERATING CONDITIONS	15
O1 Activities must be carried out in a competent manner	15
O2 Maintenance of plant and equipment	15
O3 Dust	15
O4 Processes and management	15
O5 Other operating conditions	16
5 MONITORING AND RECORDING CONDITIONS	17
M1 Monitoring records	17
M2 Requirement to monitor concentration of pollutants discharged	17
M3 Testing methods - concentration limits	20
M4 Weather monitoring	20

Environment Protection Licence

Licence - 20020



M5	Recording of pollution complaints	20
M6	Telephone complaints line	21
6	REPORTING CONDITIONS	21
R1	Annual return documents	21
R2	Notification of environmental harm	22
R3	Written report	22
R4	Other reporting conditions	23
7	GENERAL CONDITIONS	23
G1	Copy of licence kept at the premises or plant	23
G2	Signage	23
8	SPECIAL CONDITIONS	23
E1	Waste Manuka Pit	23
E2	Elevated mercury groundwater monitoring network	24
DICTIONARY		25
	General Dictionary	25

Environment Protection Licence

Licence - 20020



Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 (“the Act”) and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

Environment Protection Licence



Licence - 20020

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

MANUKA RESOURCES LTD
GRAFTON BOND BLDG LVL 5 201 KENT ST
SYDNEY NSW 2000

subject to the conditions which follow.

Environment Protection Licence

Licence - 20020

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2:

Works associated with the original application for the Wonawinta Mine ref DA 2010/LD-00074 submitted 22 December 2010 and accompanying information. Works associated with modified DA 2010/LD-00074 submitted 2 November 2011 and accompanying information.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Crushing, grinding or separating	Crushing, grinding or separating	> 500000 - 2000000 T annual processing capacity
Metallurgical activities	Metal processing	0 - 100000 T annual processing capacity
Mineral processing	Mineral processing	> 500000 - 2000000 T annual processing capacity
Mining for minerals	Mining for minerals	> 500000 - 2000000 T annual production capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
"MANUKA"
SHIRE ROAD 13 (COBAR- BEDOOBA ROAD)
COBAR
NSW 2835
LOT 1 DP 1164142

Environment Protection Licence

Licence - 20020

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
General Chemical Storage, Extractive Industries, Sewerage Treatment

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
25	Wonawinta Weather Station		Wonawinta administration office

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

Environment Protection Licence

Licence - 20020



EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
4	WSW-1. Sediment Basin 1	WSW-1. Sediment Basin 1	Monitoring and discharge point SB1 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
5	WSW-2. Sediment Basin 5	WSW-2. Sediment Basin 5	Monitoring and discharge point SB5 Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
6	TSF-1. Discharge to Tailings Storage Facility	TSF-1. Discharge to Tailings Storage Facility	End of line discharge to Tailings Storage Facility (TSF). Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
7	PWD1 - Discharge to Process Water Dam	PWD1 - Discharge to Process Water Dam	Discharge of decant water to Process Water Dam. Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
8		PWD2 - Effluent Discharge to Process Water Dam	Discharge of effluent from sewerage treatment system to the Process Water Dam. Identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
9	Groundwater Quality Monitoring		Deep groundwater monitoring bore WGW3 identified on map titled "Figure W3 Water Quality Monitoring Locations" in document titled Operations Environmental Management Plan dated March 2012
10	Groundwater Quality Monitoring		Deep groundwater monitoring bore WGW1B identified on map titled "Figure W3 Water Quality Monitoring Locations" in document titled "Operations Environmental Management Plan" dated March 2012

Environment Protection Licence



Licence - 20020

11	Groundwater Quality Monitoring	Deep groundwater monitoring bore GW2 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
12	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW4 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
13	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW5 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
14	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW6 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
15	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW7 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
16	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW8 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
17	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW9 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Environment Protection Licence



Licence - 20020

18	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW10 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
19	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW11 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
20	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW12 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
21	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW13 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
22	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW14 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
23	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW15 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012
24	Groundwater Quality Monitoring	Shallow groundwater monitoring bore GW16 identified on map titled "Figure W3 water quality monitoring locations" in document titled "Operations Environmental Management Plan" dated March 2012

Environment Protection Licence

Licence - 20020

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table\&s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\&s.

L2.4 Water and/or Land Concentration Limits

POINT 4,5

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

POINT 6,7

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Cyanide (weak acid dissociable)	milligrams per litre		20		30

POINT 9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Mercury (total)	micrograms per litre				0.05

Environment Protection Licence



Licence - 20020

L3 Waste

L3.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	General or Specific exempted waste			NA

L4 Noise limits

L4.1 Noise generated at the premises must not exceed the noise limits presented in the table below. The locations referred to in the table are identified in the document, *Cobar Consolidated Resources Limited – Wonawinta Silver Project – Environmental Impact Statement prepared by R. W. Corkery & Co. Pty Ltd dated 21 December 2010*, or except as otherwise noted in the table below.

Location	Day LAeq (15 minute)	Evening LAeq (15 minute)	Night LAeq (15 minute)	Night (LA1 1 minute)
Manuka- See note below	37	37	37	45
Wirlong- See note below	36	36	36	45
Any other residential premises not nominated above, at the time of project approval	35	35	35	45

L4.2 **Note:** As identified in "Cobar Consolidated Resources Limited- Wonawinta Silver Project- Environmental Impact Statement prepared by R.W. Corkery and Co Pty Ltd dated 21 December 2010, Figure 1.2 Local Setting.

L4.3 For the purpose of Condition L4.1:

a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;

b) Evening is defined as the period from 6pm to 10pm; and

Environment Protection Licence



Licence - 20020

c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays

L4.4 The noise limits set out in condition L4.1 apply under all meteorological conditions except for any one of the following:

- a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- c) Stability category G temperature inversion conditions.

L4.5 For the purposes of condition L4.4:

- a) The meteorological data to be used for determining meteorological conditions is the data to be recorded by a meteorological station to be sited in accordance with EPA Approved Methods AM-2 and AM-4; and
- b) Temperature inversion conditions (stability category) shall be determined by the sigma-theta method referred to in Part E4 of Appendix E of the NSW Industrial Noise Policy.

L4.6 For the purpose of determining noise generated at the premises:

- a) Class 1 or 2 noise monitoring equipment, as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used.
- b) The noise monitoring equipment used at a location must be placed in a position, that is where applicable:

- on a location's property boundary that is closest to the premises to approximation, where any dwelling at the location is within 30 metres of the location's property boundary that is closest to the premises; or
- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling at a location is situated more than 30 metres from the location's property boundary that is closest to the premises;
- to determine compliance with the LAeq(15 minute) noise limits in condition L4.1; or that which is within 1 metre of a dwelling façade at a location to determine compliance with the LA1(1 minute) noise limits in condition L4.1; and that which is at the most affected point at a location where there is no dwelling at the location; or at the most affected point within an area at a location prescribed by conditions L4.6(b)(i) or L4.6(b).

L4.7 If detected an exceedance will occur where noise generated from the premises is in excess of the appropriate limit specified in the condition L4.1:

- in an area at a location other than an area prescribed by conditions L4.6(b)(i) or L4.6(b)(ii); and/or
- at a point other than the most affected point at a location.

L4.8 For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

L5 Blasting

L5.1 The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at

Environment Protection Licence



Licence - 20020

any time and at any point within 30 metres of any non project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

- L5.2 The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period at any time and at any point within 30 metres of any non-project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L5.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time and at any point within 3.5 metres of any non project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L5.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period at any point in time within 3.5 metres of any non project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L5.5 Blasting operations in or on the premises must only be carried out between 0700 hours and 1800 hours, Monday to Saturday inclusive or as otherwise approved in writing by the EPA. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.
- L5.6 The hours of operation for blasting operations specified in condition L7.5 may be varied if the EPA, having been given at least five working days to assess a written application and having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.
- L5.7 Blasting at the premises is limited to the following on each day on which blasting is permitted or as otherwise approved in writing by the EPA:
- a) a maximum of 3 blasts per day;
 - b) a maximum of 12 blasts per week, on average over a 12 month period;

Note: Additional blasts are permitted where it is demonstrated to be necessary for safety reasons and the EPA and neighbours have been notified of the intended blast prior to the additional blast being fired.

L6 Potentially offensive odour

- L6.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

Environment Protection Licence



Licence - 20020

L6.2 No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the Protection of the Environment Operations Act 1997.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

O3.2 All dust control equipment must be operable at all times with the exception of shutdowns required for maintenance.

O3.3 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O4 Processes and management

O4.1 Blast Management Protocol

A Blasting/Vibration Management Protocol must be prepared in relation to the development and implemented.

The protocol must include, but need not be limited to, the following matters:

- compliance standards;
- mitigation measures;
- remedial action;
- monitoring methods and program;
- monitoring program for flyrock distribution*;

Environment Protection Licence



Licence - 20020

- measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables) and livestock nearby;
- notification of procedures for neighbours prior to detonation of each blast;
- measures to ensure no damage by flyrock to people, property, livestock and powerlines.*

O4.2 Blast Management Protocol

A Blasting/Vibration Management Protocol must be prepared in relation to the development and implemented.

The protocol must include, but need not be limited to, the following matters:

- compliance standards;
- mitigation measures;
- remedial action;
- monitoring methods and program;
- monitoring program for flyrock distribution*;
- measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables) and livestock nearby;
- notification of procedures for neighbours prior to detonation of each blast;
- measures to ensure no damage by flyrock to people, property, livestock and powerlines.*

O5 Other operating conditions

O5.1 Bunding Requirements

All above ground storage facilities containing flammable and combustible liquids must be bunded in accordance with Australian Standard AS 1940-2004.

O5.2 Tailings Facilities

The Tailings Storage Facility, Process Water Dam and Lead Concentrate Drying Ponds must have a basal barrier or impermeable liner with an equivalent permeability of 1×10^{-9} metres per second over a minimum thickness of 900mm or other liner approved by the EPA.

The licensee must obtain and retain documentation from an appropriately qualified person to demonstrate the liners for the structures referred to above meet the permeability requirement specified above.

O5.3 Freeboard

A minimum of 500mm freeboard must be maintained on the Tailings Storage Facility, Process Water Dam, Lead Concentrate Drying Ponds and Raw Water Dam.

Environment Protection Licence



Licence - 20020

O5.4 Stormwater/Sediment Control- Construction Phase

A stormwater management scheme must be prepared for all aspects of the construction phase of the development and must be implemented. Implementation of the scheme must mitigate the impacts of stormwater runoff from and within the premises during construction. The scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook (available from the EPA)*.

O5.5 Stormwater/Sediment Control- Operational Phase

A stormwater management scheme must be prepared for the development and must be implemented. Implementation of the scheme must mitigate the impacts of stormwater runoff from and within the premises following the completion of construction activities. The scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook (available from the EPA)*.

O5.6 Stormwater/Sediment Control- Construction Phase

A stormwater management scheme must be prepared for all aspects of the construction phase of the development and must be implemented. Implementation of the scheme must mitigate the impacts of stormwater runoff from and within the premises during construction. The scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook (available from the EPA)*.

5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:

- a) in a legible form, or in a form that can readily be reduced to a legible form;
- b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

Environment Protection Licence

Licence - 20020

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Water and/ or Land Monitoring Requirements

POINT 4,5

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample

POINT 6,7

Pollutant	Units of measure	Frequency	Sampling Method
Cyanide (total)	milligrams per litre	Quarterly	Total cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method B3.j - Alternative method and analysis by 20th Ed. APHA 4500 - CN-1 method E, D or F
Cyanide (weak acid dissociable)	milligrams per litre	Daily during any discharge	WAD cyanide from water samples - CN-1 recovery by 20th Ed. APHA 4500-CN-1 method I- Alternative method and analysis by 20th Ed. APHA 4500-CN-1 method E, D or F

POINT 9,10,11

Pollutant	Units of measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	milligrams per litre	Quarterly	Grab sample
Antimony	milligrams per litre	Quarterly	Grab sample
Arsenic (dissolved)	milligrams per litre	Quarterly	Grab sample
Cadmium	milligrams per litre	Quarterly	Grab sample
Calcium	milligrams per litre	Quarterly	Grab sample
Chloride	milligrams per litre	Quarterly	Grab sample
Conductivity	microsiemens per centimetre	Monthly	In situ
Copper	milligrams per litre	Quarterly	Grab sample
Lead	milligrams per litre	Quarterly	Grab sample
Magnesium	milligrams per litre	Quarterly	Grab sample
pH	pH	Monthly	In situ

Environment Protection Licence

Licence - 20020

Potassium	milligrams per litre	Quarterly	Grab sample
Selenium	milligrams per litre	Quarterly	Grab sample
Silver	milligrams per litre	Quarterly	Grab sample
Sodium	milligrams per litre	Quarterly	Grab sample
Standing Water Level	metres	Monthly	In situ
Sulfate	milligrams per litre	Quarterly	Grab sample
Total Hardness	milligrams per litre	Quarterly	Grab sample
Zinc	milligrams per litre	Quarterly	Grab sample

POINT 9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

Pollutant	Units of measure	Frequency	Sampling Method
Mercury (dissolved)	micrograms per litre	Quarterly	Grab sample
Mercury (total)	micrograms per litre	Quarterly	Grab sample

POINT 12,13,14,15,16,17,18,19,20,21,22,23,24

Pollutant	Units of measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	milligrams per litre	Quarterly	Grab sample
Antimony	milligrams per litre	Quarterly	Grab sample
Arsenic (dissolved)	milligrams per litre	Quarterly	Grab sample
Cadmium	milligrams per litre	Quarterly	Grab sample
Calcium	milligrams per litre	Quarterly	Grab sample
Chloride	milligrams per litre	Quarterly	Grab sample
Conductivity	microsiemens per centimetre	Monthly	In situ
Copper	milligrams per litre	Quarterly	Grab sample
Cyanide (weak acid dissociable)	milligrams per litre	Quarterly	Grab sample
Lead	milligrams per litre	Quarterly	Grab sample
Magnesium	milligrams per litre	Quarterly	Grab sample
pH	pH	Monthly	In situ
Potassium	milligrams per litre	Quarterly	Grab sample
Selenium	milligrams per litre	Quarterly	Grab sample
Silver	milligrams per litre	Quarterly	Grab sample
Sodium	milligrams per litre	Quarterly	Grab sample
Standing Water Level	metres	Monthly	In situ
Sulfate	milligrams per litre	Quarterly	Grab sample
Total Hardness	milligrams per litre	Quarterly	Grab sample
Zinc	milligrams per litre	Quarterly	Grab sample

Environment Protection Licence



Licence - 20020

M3 Testing methods - concentration limits

M3.1 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Weather monitoring

M4.1 For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Weather- Monitoring Point 25- Weather Station on the Mine Site

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	°C	Continuous	15 Minute	AM-4
Wind direction	°	Continuous	15 minute	AM-2 & AM-4
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4
Sigma theta	°	Continuous	15 minute	AM-2 & AM-4
Rainfall	mm	Continuous	24 hour	AM-4

M5 Recording of pollution complaints

M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M5.2 The record must include details of the following:

- a) the date and time of the complaint;
- b) the method by which the complaint was made;
- c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- d) the nature of the complaint;
- e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the licensee, the reasons why no action was taken.

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

Environment Protection Licence



Licence - 20020

M6 Telephone complaints line

- M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M6.3 The preceding two conditions do not apply until 3 months after the date of the issue of this licence.

6 Reporting Conditions

R1 Annual return documents

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
1. a Statement of Compliance,
 2. a Monitoring and Complaints Summary,
 3. a Statement of Compliance - Licence Conditions,
 4. a Statement of Compliance - Load based Fee,
 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
 7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

- R1.3 Where this licence is transferred from the licensee to a new licensee:
- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
 - b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is

Environment Protection Licence



Licence - 20020

given; or

b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

a) the licence holder; or

b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

a) where this licence applies to premises, an event has occurred at the premises; or

b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

a) the cause, time and duration of the event;

b) the type, volume and concentration of every pollutant discharged as a result of the event;

c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;

d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;

Environment Protection Licence



Licence - 20020

- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

R4.1 Reporting Fauna Deaths or Injury

The licensee must report any incident of death or injury (including bogging or miring) of fauna (avian and terrestrial) associated with the Tailings Impoundment or tailings runoff dam by telephoning the EPA's Pollution Line on 131 555 as soon as the licensee becomes aware of the incident.

The licensee must provide written details of the notification with respect of the above condition to the EPA within 7 days of the date of which the incident occurred.

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Signage

G2.1 The location of each monitoring and Discharge Point must be clearly marked by signs that indicate the point identification number used in this licence and be located as close as practical to the point.

8 Special Conditions

E1 Waste Manuka Pit

E1.1 The licensee must notify the EPA immediately if any buried waste is uncovered in the Manuka Pit.

Environment Protection Licence

Licence - 20020



E1.2 The licensee must consult with the EPA prior to taking any action to dispose of the waste.

E2 Elevated mercury groundwater monitoring network

E2.1 The Licensee must notify the EPA immediately if any sampling of the groundwater monitoring network shows levels of mercury greater than 0.05 micrograms per litre.

Environment Protection Licence



Licence - 20020

Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

Environment Protection Licence



Licence - 20020

flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

Environment Protection Licence

Licence - 20020

TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Ms Carmen Dwyer

Environment Protection Authority

(By Delegation)

Date of this edition: 14-November-2011

End Notes

2	Licence varied by notice	1506200 issued on 24-Jul-2012
3	Licence varied by notice	1510656 issued on 19-Dec-2012
4	Licence varied by notice	1511987 issued on 12-Apr-2013
5	Licence varied by notice	1523376 issued on 15-Sep-2014
6	Licence transferred through application	1526353 approved on 25-Nov-2014 , which came into effect on 01-Dec-2014
7	Licence varied by notice	1528434 issued on 13-Feb-2015
8	Licence varied by notice	1541757 issued on 20-Jun-2016
9	Licence transferred through application	1571877 approved on 31-Oct-2018 , which came into effect on 01-Oct-2018
10	Licence varied by notice	1571932 issued on 31-Jul-2019