

Environment Protection Licence

Licence - 5042

Licence Details	
Number:	5042
Anniversary Date:	01-March

Licensee
PASMINCO COCKLE CREEK SMELTER PTY LIMITED
LEVEL 43, 600 BOURKE STREET
MELBOURNE VIC 3000

Premises
PASMINCO COCKLE CREEK SMELTER & INCITEC FERTILIZERS
MAIN ROAD
BOOLAROO NSW 2284

Scheduled Activity
N/A

Fee Based Activity	Scale
Miscellaneous licensed discharge to waters (at any time)	0-20 ML maximum annual volume of discharge authorised

Region
North - Hunter
Ground Floor, NSW Govt Offices, 117 Bull Street NEWCASTLE WEST NSW 2302
Phone: (02) 4908 6800
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NSW 2300

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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).

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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:

PASMINCO COCKLE CREEK SMELTER PTY LIMITED
LEVEL 43, 600 BOURKE STREET
MELBOURNE VIC 3000

subject to the conditions which follow.

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence regulates water pollution resulting from the activity/ies specified below carried out at the premises specified in A2.

Fee Based Activity	Scale
Miscellaneous licensed discharge to waters (at any time)	0.00-20.00 ML maximum annual volume of discharge authorised

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
N/A	Miscellaneous licensed discharge to waters (at any time)	0 - 20 ML maximum annual volume of discharge authorised

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
PASMINCO COCKLE CREEK SMELTER & INCITEC FERTILIZERS
MAIN ROAD
BOOLAROO
NSW 2284
PREMISES AS DEFINED ON THE PLAN TITLED: "PLAN OF LICENSED PREMISES AT THE PASMINCO COCKLE CREEK SMELTER SITE, DATED 25 JANUARY 2017, BY POSITIVE SURVEY SOLUTIONS PTY LTD, EPA DOC17/96342-01.

A3 Information supplied to the EPA

A3.1 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

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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.

A3.2 The information provided in relation to the Containment Cell is:

a) Report on Containment Cell Detailed Design and Management Plan Pasminco Cockle Creek Smelter Boolaroo, New South Wales, dated March 2007 and prepared by Golder Associates Pty Ltd (06623099/055);

b) Report on Addendum Report to Containment Cell Detailed Design and Management Plan Pasminco Cockle Creek Smelter Boolaroo, New South Wales, dated 17 October 2007 and prepared by Golder Associates Pty Ltd (06623099/079_RL2);

c) Letter from Golder Associates Pty Ltd to Ferrier Hodgson dated 22 October 2007 (06623099/082);

d) Report on Contaminated Water Management Plan Pasminco Cockle Creek Smelter Site Boolaroo, New South Wales, prepared by Golder Associates Pty Ltd dated 22 August 2007 (06623099-9400/001);

e) Report on Surface Water Monitoring Program Pasminco Cockle Creek Smelter Site Boolaroo, New South Wales, prepared by Golder Associates Pty Ltd, dated 31 August 2007 (06623099-9400/002);

f) Letter to Fitzwalter Group Pty Ltd from Golder Associates Pty Ltd, dated 11 December 2007 (06623099/096 Rev2); and

g) Emails from Dennis Zines to John Coffey dated 4, 5 and 7 February 2008.

h) Concept design report prepared by Golder Associates dated 28 September 2012 as modified by conditions 1.1, 3.2A, 3.3A, and 8.5 of the Notice of Modification dated 10 August 2012 issued in respect of Major Projects Approval 06_0184.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 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.

P1.2 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

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
57	Discharge to Waters, Water Quality and Volume Monitoring	Discharge to Waters, Water Quality and Volume Monitoring	Defined as Point 57 Water Treatment Plant discharge on plan titled "Plan of Licensed Premises at the Pasminco Cockle Creek Smelter Site" dated 25 January 2017 and produced by Positive Survey Solutions Pty Ltd, EPA DOC17/96342-01

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58	Groundwater monitoring	BG2A - Background Monitoring Well as identified on Plan titled Post-remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 5 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01
59	Groundwater monitoring	BH62 - Down-gradient Monitoring Well as identified on Plan titled Post- remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 6 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01
60	Groundwater monitoring	BH63 - Down-gradient Monitoring Well as identified on Plan titled Post- remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 6 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01
61	Groundwater monitoring	BH64S - Down-gradient Monitoring Well as identified on Plan titled Post- remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 6 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01
62	Groundwater monitoring	BH65D - Down-gradient Monitoring Well as identified on Plan titled Post- remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 6 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01
63	Groundwater monitoring	BH65S - Down-gradient Monitoring Well as identified on Plan titled Post- remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 6 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01
64	Groundwater monitoring	BH64D - Down-gradient Monitoring Well as identified on Plan titled Post- remediation Groundwater Monitoring Well Network: Site Wide. FIGURE 6 - Project: 137625003 and dated 14/06/2016. EPA reference DOC17/322255-01

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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 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.

L2.4 Water and/or Land Concentration Limits

POINT 57

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Arsenic	milligrams per litre		0.3		0.6
Cadmium	milligrams per litre		0.02		0.04
Lead	milligrams per litre		0.3		0.6
Mercury	milligrams per litre		0.002		0.004
pH	pH				6.5-8.5
Selenium	milligrams per litre		0.2		0.4
Total suspended solids	milligrams per litre		30		60
Zinc	milligrams per litre		0.2		0.4

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Note: The EPA may review these concentration limits over time.

L3 Volume and mass limits

- L3.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
- liquids discharged to water; or;
 - solids or liquids applied to the area;
- must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of Measure	Volume/Mass Limit
57	kilolitres per day	4500

- L3.2 The daily discharge measured at point 57 must not exceed 4500 Kilolitres per day.

L4 Waste

- L4.1 The licensee may only receive leachate from the Pasmenco Cockle Creek Containment Cell.

L5 Potentially offensive odour

- L5.1 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.

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.

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

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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 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Emergency response

- O4.1 Within 3 months of the date of the issue of this licence, the licensee must develop, or update, an emergency response plan which documents the procedures to deal with all types of incidents (e.g. spill, explosions or fire) that may occur at the premises or outside of the premises (e.g. during transfer) which are likely to cause harm to the environment.

O5 Other operating conditions

- O5.1 All above-ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

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.

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M2 Requirement to monitor concentration of pollutants discharged

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 57

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	milligrams per litre	Daily during any discharge	24 hour composite sample
Arsenic	milligrams per litre	Daily during any discharge	24 hour composite sample
Cadmium	milligrams per litre	Daily during any discharge	24 hour composite sample
Lead	milligrams per litre	Daily during any discharge	24 hour composite sample
Mercury	milligrams per litre	Daily during any discharge	24 hour composite sample
pH	pH	Continuous during discharge	In line instrumentation
Selenium	milligrams per litre	Daily during any discharge	24 hour composite sample
Total suspended solids	milligrams per litre	Daily during any discharge	24 hour composite sample
Zinc	milligrams per litre	Daily during any discharge	24 hour composite sample

POINT 57,58,59,60,61,62,63,64

Pollutant	Units of measure	Frequency	Sampling Method
Standing Water Level	metres	2 Times a year	No method specified

POINT 58,59,60,61,62,63,64

Pollutant	Units of measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	milligrams per litre	Yearly	Grab sample
Calcium	milligrams per litre	Yearly	Grab sample
Chloride	milligrams per litre	Yearly	Grab sample
Dissolved Oxygen	milligrams per litre	2 Times a year	Grab sample
Electrical conductivity	microsiemens per centimetre	2 Times a year	Grab sample
Lead	milligrams per litre	2 Times a year	Grab sample

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Magnesium	milligrams per litre	Yearly	Grab sample
Nickel	milligrams per litre	2 Times a year	Grab sample
pH	pH	2 Times a year	Grab sample
Potassium	milligrams per litre	Yearly	Grab sample
Redox potential	millivolts	2 Times a year	Grab sample
Sodium	milligrams per litre	Yearly	Grab sample
Sulfate	milligrams per litre	Yearly	Grab sample
Temperature	degrees Celsius	2 Times a year	Grab sample
Zinc	milligrams per litre	2 Times a year	Grab sample

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 Recording of pollution complaints

M4.1 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.

M4.2 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.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 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.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a

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complaints line so that the impacted community knows how to make a complaint.

M5.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

M5.4 The licensee must nominate a representative of the company that is available all all times and is capable of providing immediate assistance or response during emergencies or any other incidents at the premises. The name of the nominated representative and their contact details, including a telephone number, must be current at all times.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:

- a) the volume of liquids discharged to water or applied to the area;
- b) the mass of solids applied to the area;
- c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

POINT 57

Frequency	Unit of Measure	Sampling Method
Daily	kilolitres per day	Flow meter and continuous logger

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

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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 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

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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:
- the cause, time and duration of the event;
 - the type, volume and concentration of every pollutant discharged as a result of the event;
 - 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;
 - 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;
 - action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
 - details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
 - 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.

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 Other general conditions

G2.1 Completed Programs

Program	Description	Completed Date
Install water sprays on the dual carriage way road	Install water sprays on the dual carriage way road.. To reduce fugitive dust emission from caused by wind and traffic movements	31-December-2002
Upgrade briquett plant	Upgrade briquett plant. to reduce fugitive dust emissions	30-June-2002

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Prepare action plan and commence implementation of	Prepare action plan and commence implementation of actions to seal road used to transport slag / concentrate containers. Control wind blown and traffic generated dust from site, Good industry practice	30-December-2001
Commence action plan to seal exposed areas on the	Commence action plan to seal exposed areas on the plant to control wind blown dust. Reduce dust and good industry practice	18-October-2001
pH Balance System	Installation of a pH balance system to the Water Treatment Plant	06-November-2015
South West Dam Catchment Stabilisation	Stabilisation of South West Dam Catchment by means of effective sedimentation and erosion control	06-June-2016

8 Pollution Studies and Reduction Programs

U1 Water Treatment Plant Commissioning Study and Report

U1.1 The licensee must undertake a water treatment plant commissioning study and report that is undertaken by an appropriately qualified and experienced person. The study must:

- a) be undertaken on a daily basis for four weeks, then weekly for a further 2 months;
- b) test a range of inflow and outflow volumes between 200 kilolitres per day and 4500 kilolitres per day;
- c) monitor the inflow and outflow for total and dissolved fractions of arsenic, cadmium, lead, mercury, selenium and zinc;
- d) monitor the inflow and outflow for total suspended solids, pH, turbidity and total nitrogen;
- e) include monitoring and testing that complies with the EPAs Approved Methods and that analysis uses appropriate levels of detection or (LORs) such that reductions in pollutants can be observed; and
- f) commence within four weeks of the commissioning of the tank farm which is to be connected to the water treatment plant.

The Report must include:

- g) a description of the water treatment plant processes and design capabilities;
- h) a description of how the water treatment plant is operated remotely, including the contingencies in place in the case of failures;
- h) an analysis of the treatment efficiencies at the variety of inflows;
- i) graphs of the reduction in pollutants and inclusion of the raw data in an appendix;
- j) comparisons of outflow concentrations to licensed limits;
- k) and should limits not be achieved, the recommendations to ensure effective treatment to meet limits; and
- l) be provided to the EPA Regional Manager hunter.region@epa.nsw.gov.au within two months after the commissioning study has been completed.

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9 Special Conditions

E1 Construction Quality Assurance

E1.1 The licensee must provide a report to the EPA on each of the works listed below containing the construction quality assurance information in accordance with the specifications detailed in Appendix F of the report identified in condition A3.2 a) and in accordance with those specifications clarified and modified in the report, letter and emails identified in condition A3.2 b), c) and g), by 1 July 2017.

- a) Construction and installation of all pipework, controls, interlocks and alarms for the groundwater and leachate extraction and flow network (for each stage of the cell's construction);
- b) Construction of the capping works for stages A, B and C; and
- c) Construction of the leachate storage dam.

E2 Ambient Groundwater Monitoring

E2.1 The licensee must undertake groundwater monitoring in accordance with the report titled: "Pasminco Cockle Creek Smelter Site - Groundwater Monitoring and Management Plan - Revision 1" Report Number 137625003_232_R_Rev0, dated 17 June 2016.

E2.2 The licensee must submit an Annual Ambient Groundwater Monitoring Report that includes, but need not be limited to the following:

- a) Trend analysis of monitored parameters in all sampling wells and sumps that includes:
 - 1. tabulated results of all monitoring data;
 - 2. a graphical presentation of data in order to show variability and/or trends. This should include, at a minimum, all data since the final capping of the containment cell;
 - 3. any statistically significant variations or anomalies in the data should be highlighted and explained; and
 - 4. conclusions and any recommendations from the analysis and interpretation of the data.

E3 Water Treatment Plant - Annual Performance Report

E3.1 The licensee must submit an Annual Performance Report for the water treatment plant that includes, but need not be limited to the following:

- a) tabulated results of all monitoring data required to be collected and analysed as part of this licence;
- b) a graphical presentation of data in order to show variability and/or trends. This should include, at a minimum, all data since the commissioning of the Water Treatment Plant;
- c) a graphical presentation of monitoring data against licence limit conditions;
- d) any statistically significant variations or anomalies in the data should be highlighted and explained;

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f) an analysis and interpretation of any deficiencies in environmental performance identified by the monitoring data; and

g) any remedial action taken or proposed to be taken to address any deficiencies;

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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

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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> .

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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

Mr Grahame Clarke

Environment Protection Authority

(By Delegation)

Date of this edition: 02-January-2001

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End Notes

- 1 Licence varied by notice 1004512, issued on 04-Apr-2001, which came into effect on 29-Apr-2001.
- 2 Licence varied by notice 1009852, issued on 20-May-2004, which came into effect on 14-Jun-2004.
- 3 Licence varied by notice 1038705, issued on 29-Jul-2004, which came into effect on 04-Aug-2004.
- 4 Licence varied by notice 1044843, issued on 26-Apr-2005, which came into effect on 21-May-2005.
- 5 Licence varied by notice 1071356, issued on 13-Aug-2007, which came into effect on 13-Aug-2007.
- 6 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 7 Licence varied by notice 1088573, issued on 09-Oct-2009, which came into effect on 09-Oct-2009.
- 8 Licence varied by notice 1118334, issued on 02-Sep-2010, which came into effect on 02-Sep-2010.
- 9 Licence varied by notice 1509706 issued on 18-Jan-2013
- 10 Licence varied by notice 1525334 issued on 10-Jun-2015
- 11 Licence varied by notice 1536943 issued on 29-Apr-2016
- 12 Licence varied by notice 1544376 issued on 01-Nov-2016
- 13 Licence varied by notice 1550579 issued on 28-Jun-2017