Peak Hill Gold Mine

Pollution Incident Response Management Plan

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Table of Revisions

Revision Number	Revision Date	Prepared By	Approved By:	Comments
Revision 11	Oct 2025	Michael Sutherland	Nic Earner	Submission for Information

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1. INTRODUCTION AND SCOPE

This Pollution Incident Response Management Plan (PIRMP) has been prepared as a tool so that in the event of a pollution incident, Alkane Resources Ltd (Alkane) personnel will respond in a practised, planned manner.

The PIRMP will be used to manage the impact on employees, neighbours, the wider community and the environment both on and off site.

The PIRMP aims to ensure comprehensive and timely communication about a pollution incident to all personnel present at Peak Hill Gold Mine (PHGM), immediate neighbours, the Environment Protection Authority (EPA) and other relevant agencies such as:

- Parkes Shire Council;
- Ministry of Health;
- WorkCover Authority of NSW; and
- Fire and Rescue NSW.

The PIRMP also aims to minimise the risk of a pollution incident by firstly identifying the risks, putting measures in place to reduce the likelihood of an incident occurrence and finally planning and practising the response to a pollution incident.

This PIRMP post-dates mine closure and decommissioning of the Peak Hill Gold Mine which operated between 1996 and 2005. The site is currently largely decommissioned and no longer carries out mining operations nor stores nor handles dangerous goods.

The PIRMP does not detail the procedure for treatment of injured persons or remediation of the environment following a pollution incident.

The Peak Hill Gold Mine is located immediately north and east of the township of Peak Hill. The site contains several mining leases and a gold lease. Five open cut voids are fenced and secured from the public. Void viewing areas and interpretive signs provide a visitor experience which is operated under an agreement with Parkes Shire Council.

Lot 81 in DP1215579 contains the final rehabilitated landforms of the waste rock emplacement (WRE) and spent heap leach material.

A site house, exploration office, core yard, crib room, storage shed and workshop are the remnant structures from the operating mine. These are all transportable buildings but are still used by Alkane exploration personnel. Access to the site office is from Roose Road (east of Newell Highway) 1km north of Peak Hill Post Office.

A location map is included as Figure 1. This shows the location of the premises to which this licence relates, the surrounding area (Peak Hill township, neighbouring farms and Newell Highway).

It is important to note that there have been no significant volumes of chemicals, fuels or other potentially hazardous items stored by Alkane on site since December 2005. There is a quantity of sulphide bearing waste rock encapsulated in an oxide waste rock emplacement which has been rehabilitated to a final landform.

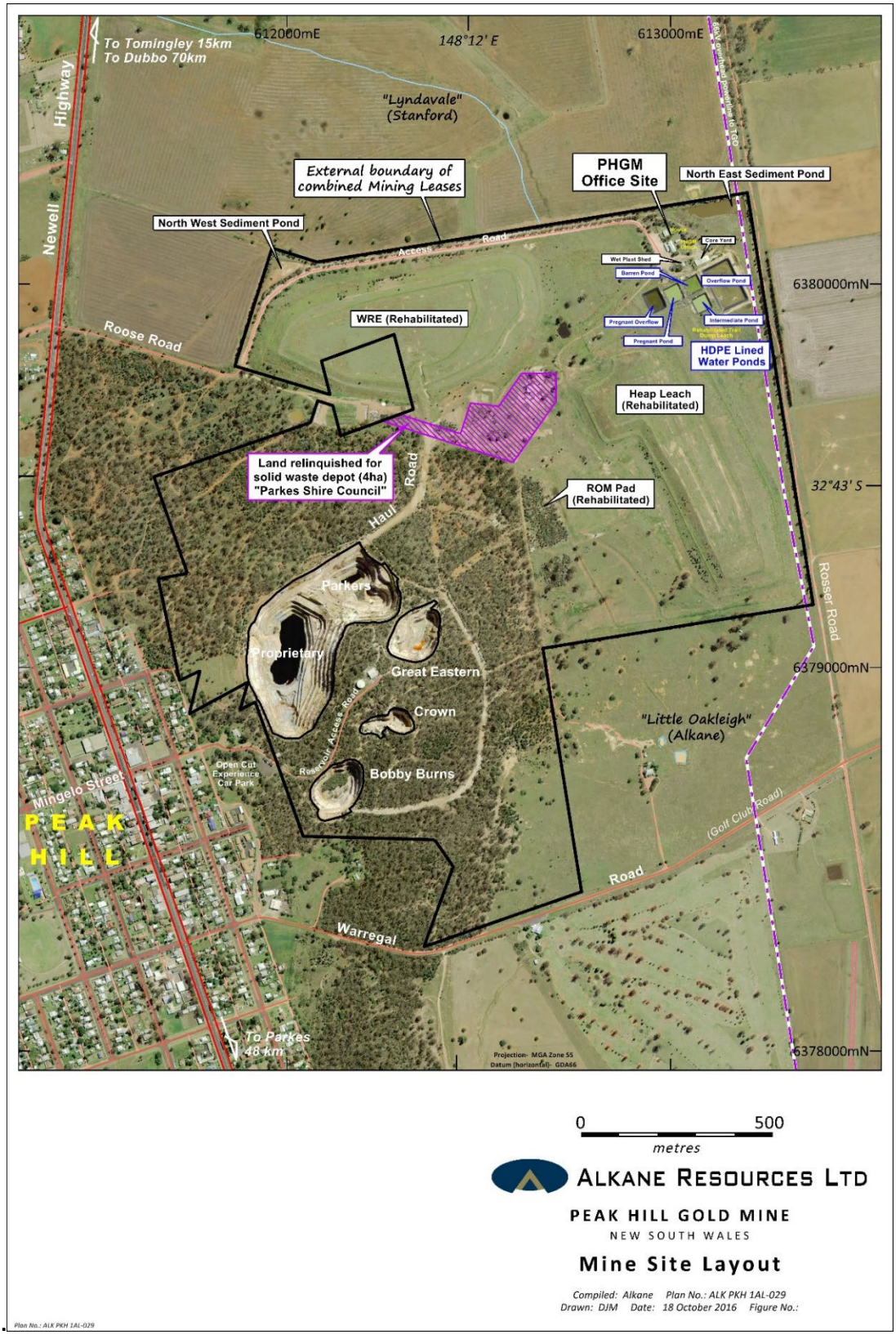
To Tomingley 15km
To Dubbo 70km
612000mE
148°12' E
613000mE
Newell Highway
"Lyndavale" (Stanford)
External boundary of combined Mining Leases
PHGM Office Site
North East Sediment Pond
North West Sediment Pond
Access Road
Core Yard
Wet Plant Shed
Barren Pond
Overflow Pond
6380000mN
WRE (Rehabilitated)
Roose Road
Pregnant Overflow
Intermediate Pond
Pregnant Pond
HDPE Lined Water Ponds
Heap Leach (Rehabilitated)
Land relinquished for solid waste depot (4ha) "Parkes Shire Council"
Haul Road
ROM Pad (Rehabilitated)
32°43' S
Parkers
Rosser Road
Proprietary
Great Eastern
6379000mN
Crown
"Little Oakleigh" (Alkane)
Open Cut Experience Car Park
Bobby Burns
Mingelo Street
PEAK HILL
(Golf Club Road)
Road
Warregal
To Parkes 48 km
Projection- MGA Zone 55
Datum (horizontal)- GDA66
6378000mN
0
500
metres
ALKANE RESOURCES LTD
PEAK HILL GOLD MINE
NEW SOUTH WALES
Mine Site Layout
Compiled: Alkane Plan No.: ALK PKH 1AL-029
Drawn: DJM Date: 18 October 2016 Figure No.:
Plan No.: ALK PKH 1AL-029

Figure 1

2. LEGAL REQUIREMENTS AND CONSULTATION

The Protection of the Environment Legislation Amendment Act 2011 introduced changes designed to improve the way pollution incidents are reported and managed in NSW. The changes apply to the holders of Environmental Protection Licences.

The requirements for PIRMP are set out in Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO Act 1997) and the Protection of the Environment Operations (General) Regulation 2009. In summary these provisions require that:

- all holders of an Environment Protection Licence prepare, implement and test a PIRMP;
- the plan includes the information detailed in the POEO Act 1997 (section 153C). These requirements are reproduced in Table 1;
- the plan must be kept at the premises to which the Environment Protection Licence relates.

Table 1 – Requirements for a PIRMP, Section 153C (d) Protection of the Environment Operations Act 1997

Clause Number	Requirement	Section in this Plan
98 C (1) a	A description of the hazards to human health or the environment associated with the activity to which the licence relates	Appendix 1
98 C (1) b	The likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood	Appendix 1
98 C (1) c	Details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity.	Section 7.1
98 C (1) d	An inventory of potential pollutants on the premises or used to carry out the relevant activity	Section 5
98 C (1) e	The maximum quantity of any pollutant that is likely to be stored or held at particular locations including underground tanks at or on the premises to which the licence relates	Section 5
98 C (1) f	A description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident	Section 6
98 C (1) g	The names, positions and 24 hour contact details of those key individuals who: • Are responsible for activating the plan • Are authorised to notify relevant Authorities under section 148 of the Act • Are responsible for managing the response to the pollution incident.	Section 8.1

Clause Number	Requirement	Section in this Plan
98 C (1) h	Contact details of each relevant authority referred to in section 148 of the act.	Section 8.2
98 C (1) i	Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of the premises in the vicinity of the premises to which the licence relates	Section 8.3
98 C (1) j	The arrangements for minimising the risk of harm to any persons who are present where the scheduled activity is being undertaken	Section 7.1
98 C (1) k	A detailed map showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of pollutants on the premises, and the location of stormwater drains on the premises,	Figure 1
98 C (1) l	A description of how any identified risk of harm to human health will be reduced, including as a minimum, means of early warnings, updates and the action to be taken during or immediately following a pollution incident to reduce the risk,	Appendix 1 and Section 7
98 C (1) m	The nature and objectives of any staff training program in relation to the plan,	Section 9
98 C (1) n	The dates on which the plan has been tested and the name of the person who carried out the test,	Table 11
98 C (1) o	The dates on which the plan is updated,	Table of Revisions
98 C (1) p	The manner in which the plan is to be tested and maintained,	Section 11
Other Requirements of the plan		
	Availability of the plan. The plan is to be available to an authorised officer on request and on the premises to which the licence relates or where the activities take place and to any person who is responsible for implementing the plan The plan is to be made publicly available within 14 days of its preparation in a prominent location on a publicly accessible website of the person who is required to prepare the plan	Section 10
	Testing of the plan is to be carried out in such a manner as to ensure information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner. The test is to be carried out at least once every 12 months and within one month of any pollution incident	Section 11

Clause Number	Requirement	Section in this Plan
	occurring in the course of an activity to which the licence relates so as to assess, in the light of an incident, whether information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.	

3. DEFINITION OF A POLLUTION INCIDENT

The POEO Act 1997 defines a pollution incident as:

> "…pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill, or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur.
>
> It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise."

4. DUTY TO NOTIFY

4.1 REQUIREMENT

The holder of an Environment Protection Licence is required to notify the relevant authorities if there is a risk of "material harm to the environment".

Harm to the environment is material if:

1. It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
2. It results in actual or potential loss of property damage of an amount or amounts in aggregate exceeding $10,000 (or such other amount as is prescribed by the regulations); and
3. Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

Harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution.

Licence holders are required to report pollution incidents **immediately** (this means without delay) to **all** of the appropriate regulatory authorities.

These appropriate regulatory authorities are the:

- Environment Protection Authority
- Ministry of Health
- WorkCover NSW
- Parkes Shire Council and
- Fire and Rescue NSW

Failure to notify in accordance with the Act carries a maximum penalty of $2 million. Increases to penalty notice amounts have been implemented through the POEO (General) Amendment (Fees and Penalty Notices Regulation 2014 which commenced on 29 August 2014 http://www.legislation.nsw.gov.au/sessionalview/sessional/subordleg/2014-564.pdf

5. INVENTORY OF POTENTIAL POLLUTANTS

The tables below provide an indicative inventory of the potential pollutants on site.
These tables will be updated every four months upon the commencement of construction.

5.1 OPERATIONAL PHASE

The Table below contains chemicals that were on site during operations but are no longer (since 2005) held on site. The only potentially hazardous material on the PHGM site is pyritic waste rock.

Table 2 – Inventory of potential pollutants during mining operations

Product	Location	Maximum Quantity
Diesel Fuel	Mining Contractor Yard	Nil
Lubricants	Plant Workshop	Nil
Sodium Cyanide	Reagents Compound	Nil
Sodium Hydroxide	Reagents Compound	Nil
Hydrochloric Acid	Reagents Compound	Nil
ANFO	Explosives Magazine	Nil
Copper Sulphate	Reagents Compound	Nil
LPG	LPG Storage Area	Nil
Hammer Oil	At drill rig	Nil
Anti-Freeze	Mining Contractor Yard	Nil
Surface water pollutants	Northeast and northwest sediment ponds	Nil
Acid Mine Drainage*	Waste Rock Emplacement Heap Leach Final landform	Negligible AMD

*808,660 tonnes of pyrite rich waste rock are encapsulated in the 22.7Ha Waste Rock Emplacement. Very minor amounts of pyritic material have contaminated the oxide heap leach ore material.

6. INVENTORY OF SAFETY EQUIPMENT

The table below provides an inventory of the safety equipment and other devices available on site to minimise the risks to human health, the environment and to contain/control a pollution incident at PHGM.

6.1 OPERATIONAL PHASE

Table 3 – Equipment available on site during mining operations to help in the event of a pollution incident

Product	Location	Purpose
Spill Kit	Process Plant	Control of minor spills
SDS	Administration Offices, workshops	Provide data on chemicals
First Aid Kits	Administration Offices, vehicles	For administering first aid
Fire Extinguishers	Scattered all through process plant and buildings, all vehicles	Control of any minor fire
Fire Hydrants*	Fire ring main around plant	Control of larger fires
Oxy-Viva*	Process Plant	Cyanide poisoning equipment
Emergency Shower*	Process Plant	For administering first aid

*These items have been decommissioned since mine closure as they are no longer required at PHGM.

7. INSTALLED POLLUTION CONTROL MEASURES

The following measures will be used to prevent pollution to the environment when storing and handling various chemicals and substances and waste materials:

Table 4 – Pollution control measures during mining operations

Product	Storage Facility
Acid Mine Drainage	Encapsulation of sulphidic material within an 80% by volume oxide waste rock emplacement. Northeast Sediment Pond captures surface waters flowing from WRE.
Lime (CaCO3)	Purchased and imported to site on an as needs basis
Surface water pollutants	Northeast and northwest sediment ponds (Licenced discharge points)

8. ACTIONS TO BE TAKEN BEFORE, DURING AND IMMEDIATELY AFTER A POLLUTION INCIDENT

8.1 ACTIONS TO MINIMISE A POLLUTION INCIDENT

The following actions have been undertaken or are ongoing and aim to minimise an event from which a pollution incident may result:

- A Pollution Incident Risk Assessment has been undertaken and is included in Appendix 1. This assessment allows Alkane to identify the risks associated with activity, put management measures in place to reduce the likelihood of any significant risks occurring and therefore minimise the likelihood of a pollution incident.
- Regular inspection of the integrity of waste rock emplacement and monitoring of the surface water that sheds from this landform will indicate whether there is potential for an environmental incident.
- A consultant has been engaged to monitor landscape function analysis which will provide a measure of landform stability and potential outbreak of Acid Mine Drainage.
- In addition to this PIRMP, the mine site is inspected at least annually by staff of Resources Regulator and EPA.
- During 2026-2027 Alkane will remediate the worst of scalded (salt) patches on the final landforms with fresh topsoil. The total area for remediation is less than 10,000 square metres.

8.2 ACTIONS TO BE TAKEN DURING A POLLUTION INCIDENT

Given the fact the mine is in a closure phase, a major pollution incident on site is extremely unlikely. In the event of a pollution incident the following actions will be taken:

- Ensure personnel safety. Assess the necessity for evacuation. If evacuation is required then evacuation will be undertaken in accordance with Peak Hill Gold Mine Health & Safety Management System (Jul 2022).
- A bushfire would be the most likely scenario requiring an evacuation. (Acid Mine Drainage is a relatively low threat to the environment).
- Undertake emergency response other than evacuation.
- Contact the Appropriate Regulatory Authorities (ARA).

- Take direction from ARA if provided.
- If safe and possible to do so, undertake immediate measures to prevent further impacts from the pollution incident.
- If required seek assistance from specialist consultants/contractors.

These actions are discussed in more detail below.

8.2.1 Ensure personnel safety

If a pollution incident occurs the first priority is to ensure personnel safety, visually assess the situation and if there is significant risk to human health, undertake proceedings to evacuate the site.

If evacuation is not required the area shall be isolated and segregated to prevent personnel coming in contact with the incident. Barriers are to be erected, and other isolation measures implemented where available. If possible to isolate any release by turning off valves safely, this should be carried out. The area supervisor is to be informed so that senior management can also be advised.

Mobile phones will be used for communication on site to alert personnel of the occurrence of a pollution incident. It is a fast and effective way to communicate so that personnel can ensure their personal safety.

8.2.2 Notification of authorities

Immediately after Alkane is aware of a pollution incident a "PHGM Key Contact" will notify all authorities listed in section 8.2 of this plan.

The following protocol will be followed for notification of pollution incidents:

8.2.2.1 Protocol

1. Call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, NSW Police and NSW Ambulance Service. These are the first responders and responsible for controlling and containing incidents.

2. If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order:

    a. The EPA
    b. NSW Health (via the local Hospital)
    c. WorkCover NSW
    d. Parkes Shire Council
    e. Fire and Rescue NSW

The information that is required to be notified is as follows:

a) The time, date, nature, duration and location of the incident,

b) The location where pollution is occurring or likely to occur,

c) The nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,

d) The circumstances in which the incident occurred (including the cause of the incident),

e) The action taken and proposed to be taken to deal with the incident and any resulting pollution or threatening pollution, if known,

f) Any other information prescribed by regulations.

Notification is required **immediately**. Any information required that is not known at the time of the incident can be notified when it becomes known.

8.2.3 Consultation of the SDS

If the pollution incident involves the use of a product for which an SDS is available then upon notification of a pollution incident, the SDS shall be consulted to obtain information to help in the management of the incident which may include recovering the product and performing the clean-up. In certain instances, specialised outside help may be needed. The SDS will also provide information on the appropriate PPE to be worn if it is decided to approach the polluted area.

8.2.4 Notification of Neighbours

Neighbours will be contacted directly via the phone in the event of a pollution incident if there is risk of harm to their safety.

8.3 ACTIONS FOLLOWING A POLLUTION INCIDENT

8.3.1 Clean up and Recovery

Following a pollution incident key personnel will develop a clean-up and recovery plan. It may be possible to undertake this using resources on site or depending on the situation may require the engagement of emergency services or professional clean-up crews with breathing apparatus and sophisticated recovery plant.

8.3.2 Incident Report

Following a pollution incident Alkane will undertake a comprehensive investigation of the event and complete an Incident Report (template in Appendix 2). Within 7 days of the incident this report will be issued to authorities.

9. CONTACT DETAILS

9.1 PHGM KEY CONTACTS

The people listed in Table 5 are responsible for activating this plan, are authorised to notify the appropriate regulatory authorities and are responsible for managing the response to a pollution incident is accordance with this plan.

Table 5 – Peak Hill Gold Mine Key Contacts

KEY CONTACT	POSITION	CONTACT DETAILS (24Hrs)
Michael Sutherland	General Manager NSW	0427 691 733
Alex Cherry	Senior Exploration Geologist	0416 217 892
Ken Robinson	PHGM Site Superintendent	0428 836 587

9.2 APPROPRIATE REGULATORY AUTHORITIES

The table below provides contact information for the appropriate regulatory authorities. **All** Appropriate Regulatory Authorities are to be contacted in the event of a pollution incident.

Table 6 – Appropriate Regulatory Authorities - Contact Details

Regulatory Authority	Key Contact	Contact Details
Environment Protection Authority(EPA), NSW	(Dubbo Office)	6883 5333 EPA Pollution Line 131 555
WorkCover NSW		131 050
NSW Ministry of Health	Public Health Unit – Environmental Health Officer - Dubbo Office	02 6841 5569
Parkes Shire Council	Kent Boyd – General Manager	2 Cecile Street, Parkes NSW 2870 (02) 6861 2333
Fire, Police, Ambulance		000

9.3 COMMUNICATING WITH NEIGHBOURS

Table 7 provides details of the closest neighbours to the site and their distance from the site.

Table 7 – Neighbours contact details

Neighbour	Distance	Key Contact	Contact Details
NORTH			
"Lyndavale"	Next door to sediment pond discharge points	Jim Stanford, Judith Stanford	0427 771 992, 0404 637 295

The northeast and northwest sediment ponds discharge into neighbouring farmland ("Lyndavale") contour banks and dams. Jim and Judith live at 116 Euchie Street, Peak Hill.

Other key neighbours surrounding the PHGM are described below and will be contacted if the pollution incident is a threat to them.

- The Newell Highway is situated within 500m of the Mining Leases at PHGM;

  Transport for NSW – Traffic Management Control 1800 679 782, CNC West 1300 092 427
  T 02 6861 1686 F 02 6861 1415
  51-55 Currajong St Parkes NSW 2870

- Burrabadine Creek, an ephemeral creek 3km north of PHGM which drains into the Bogan River;

  DPIE Water, Tim Baker (Dubbo Office),
  Senior Planning & Assessment Coordinator
  Major Projects, Mines and Assessment, (02) 6841 7403
  M 0428 162 097

10. TRAINING

The following training will be undertaken to ensure that the PIRMP is well understood and that all staff (Site Superintendent) are familiar with the requirements of the plan and the key steps to manage a pollution incident:

- Persons identified as Alkane Key Personnel will attend Tool Box meetings on the requirements of the PIRMP.

11. ACCESS TO THE PIRMP

This plan is kept at the PHGM site office (on the premise to which the EPL relates).

The PIRMP will also be kept on the project server at:
P:\Alkane\01 Admin (Technical Filing)\120 – Environment\PIRMP

The PIRMP is also available on the project website: www.alkane.com.au

12. TESTING OF THE PIRMP

The PIRMP will be tested annually.

Testing of the PIRMP will include:

- A desktop review of the plan to ensure that the information is accurate and up to date.
- A drill exercise to simulate one of the potential incidents identified within the risk assessment in Appendix 1.

As it is a requirement of the legislation, this plan will also be tested within one month of any pollution incident occurring on site.

Table 8 - Register for Testing the PIRMP

Date of Test	People Involved	Comments/Outcomes
14 September 2015	Ken Robinson and Stew Lamond	Exercise only - Use of trailing firefighting unit to extinguish a small fire
19 July 2016	Ken Robinson sandbagged NE sediment overflow as pond was rising from significant rainfall event	Exercise only – to establish effective increase in capacity of pond to contain pollution on site
14 June 2017	Mike Sutherland and Ken Robinson	Exercise only – safe access and egress of a light truck from Proprietary pit
9 February 2018	Ken Robinson and Mike Sutherland	Lightning strike and small grass fire on ROM Pad. Ken coordinated response from Fire Brigade.

25 February 2020	Steve Carlin & Ken Robinson Mike Sutherland	Installed Evacuation Diagram at site office and OCE Carpark. Revised Emergency Management Plan Dec 2019
21 February 2022	Robbie Owens (ROJO Emergency & Safety Training), Mike Sutherland, Alex Cherry, Lachlan Burrows, Ken Robinson, Stew Lamond	Desktop training exercise (Time to act) on site at PHGM
19 January 2023	Mike Sutherland and Kerrie Edwards (ROJO Emergency & Safety)	Revised the HSMP for the Open Cut Experience as part of a review and update of the Exploration Safety Management Plan
9 August 2024	Mike Sutherland, Michael Fake & Mark Greally (Resources Regulator)	Targeted Assessment Program – Revegetation of final landforms at Peak Hill Gold Mine aimed at reducing risk of AMD
2 July 2025	Mike Sutherland, Michale Fake & Kate Overall (Resources Regulator)	Planned Inspection Program focussing on whether rehabilitation of final landforms was occurring as soon as reasonably practical.

In 2014 the NSW EPA introduced a risk-based licencing system. A risk assessment of the premises was undertaken by EPA officers in consultation with the licence holder (Alkane) in December 2014.

Appendix 1
Pollution Incident Risk Assessment

Risk Assessment
Risk Rating Matrix

Likelihood	Consequences				
	Insignificant 1	**Minor 2**	**Moderate 3**	**Major 4**	**Catastrophic 5**
A (Almost Certain)	H	H	E	E	E
B (Likely)	M	H	H	E	E
C (Possible)	L	M	H	E	E
D (Unlikely)	L	L	M	H	E
E (Rare)	L	L	M	H	H

Consequence of Occurrence: 1 = Insignificant; 2 = Minor; 3 = Moderate; 4 = Major; 5 = Catastrophic
Likelihood of Occurrence: A = Almost Certain; B = Likely; C = Possible; D = Unlikely; E = Rare
Risk Rating: E = Extreme; H = High; M = Moderate; L = Low

Risk Source	Unmitigated Risk Ranking	Mitigation	Consequence of Occurrence if Mitigated	Likelihood of Occurrence if mitigated	Residual Risk Rating
Pollution of surface water due to AMD	3C=H	Soil treatment with lime and topsoil to affected outbreaks, NE sediment pond	2	3	M
Initiation of fire on the mine site and spread to adjoining properties	3C=H	Fire breaks, fire fighting equipment on site	2	3	M
Sewage Spill causes impact to human health, surface water or ground contamination	2D=L	Use a licensed contractor to service toilets, do not locate toilets near surface water, empty toilets regularly	2	2	L

Note: Incidents involving light and noise are not defined as "Pollution Incidents" by the EPA.

Appendix 2
Incident Report – Template

Incident Report

Date Report Raised			
Raised By			
Date of Incident			
Description of Incident			
Corrective Action		**Completed By**	**Due Date**
Preventative action		**Completed By**	**Due Date**
Incident Report Closed out By:	**Signed by Issuer:**		
Comments:	**Date**		