Transport Emergency Response Plan

Rosslyn Hill Mining

Date February 2014
This Emergency Response Plan was prepared by Rosslyn Hill Mining Pty Ltd (Rosslyn Hill Mining) to detail emergency response requirements in the event that lead carbonate concentrate is discharged into the environment at any point between the mine-site and the shipping containers being removed from the state. Ministerial Statement 905 published on the 27 July 2012 allows for revisions of the Emergency Response Plan (ERP) to be approved by the CEO on advice of the Department of Fire and Emergency Services, the Port Authority and relevant local governments. This document, when approved will supersede the Emergency Response Plan (Strategen, June 2009) approved on 13 August 2009 under Statement 783.

Please contact Rosslyn Hill Mining Pty Ltd for a hard copy of this document (printing costs may apply). Alternatively this document is available on Rosslyn Hill Mining Pty Ltd website at www.rosslynhillmining.com.au.

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1. **BACKGROUND**

1.1. **Introduction**

Rosslyn Hill Mining operates an open-cut lead carbonate mine and processing facilities approx. 30 kilometres west of the Wiluna town site. The lead carbonate concentrate produced at the Paroo Station mine-site (mine-site) is loaded into double laminated and sieve proof bags and sealed, the bags are then locked inside shipping containers and transported by road from the mine-site to Leonora and then by rail from Leonora to the Port of Fremantle, where the containers are loaded onto ships and exported out of the state.

The Minister for Environment published Ministerial Statement 905 on 27 July 2012 for the recommencement of mine site operations and the transport of lead carbonate concentrate by road from the mine site to Leonora, then by rail to the Port of Fremantle. Ministerial Statement 905 supersedes previous Statements 559 and 783.

Statement 905 includes condition 11 relating to maintaining and implementing an Emergency Response Plan.

1.2. **Purpose and Scope**

Condition 11-1 of Ministerial Statement 905 requires that the Emergency Response Plan (Stratagen, 2009) (ERP) approved by the Minister for Environment on 13 August 2009, or any approved revision of that plan, be implemented in the event that lead carbonate concentrate is discharged into the environment anywhere between the mine site and the shipping containers leaving the state.

Rosslyn Hill Mining has revised the ERP, approved on 13th August 2009, in line with changes arising from the issue of Ministerial Statement 905.

Condition 11-2 allows for revisions to be approved by the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Fire and Emergency Services (DFES), the Fremantle Port Authority and relevant local Governments.

1.3. **Product description**

Lead carbonate concentrate from the Paroo Station Mine is dark to light grey sand-like amorphous material with a total lead content of 62-65%. The moisture content at the time of bagging and shipping is a minimum of 7.5%.

The Australian Dangerous Goods Code (ADGC) requires that goods be assigned a dangerous goods class according to the most significant risk presented by the goods, as determined by the criteria set out in the code. The dangerous goods classification applicable to lead carbonate concentrate produced at Rosslyn Hill Mining’s Paroo Station mine-site is as follows:

- United Nations (UN) Number: 2291;
- Class: 6.1 (Toxic Substances);
- Correct Shipping Name: Lead Compound Soluble N.O.S. (contains 77% - 82% lead carbonate);
- Packing Group: III;
- Hazchem Code: 2Z.

The Material Safety Data Sheet (MSDS) for the lead carbonate concentrate is provided in Appendix 1 and provides a detailed description of lead carbonate concentrate, its effects and safety measures.
1.4. Definitions

**Approved Emergency Responder:** A company or person who is approved by the Chief Officer of the Department of Mines and Petroleum under regulation 184 of the *Dangerous Goods Safety (Road and Rail Transportation of Non-explosives) Regulations 2007* to provide resources as soon as practicable to eliminate or reduce to an acceptable level, the risk associated with a dangerous situation involving the transportation of dangerous goods, providing clean up services along the transport route following and any subsequent sampling required post incident.

In the context of this document, the term Approved Emergency Responder refers to any companies contracted or engaged by Rosslyn Hill Mining or the transport contractor to provide emergency response services as described in the document, in accordance with regulation 184 of the Dangerous Goods Safety (Road and Rail Transportation of Non-explosives).

**Emergency Services:** The Department of Fire and Emergency Services (DFES) is the designated Hazard Management Agency (HMA) under the Emergency Management Regulations 2006 for hazardous materials incidents for the whole of the State. Therefore under the Western Australian Hazardous Materials Emergency Management Plan (WESTPLAN – HAZMAT) (FESA 2005), DFES must be notified of any emergency involving hazardous materials.

DFES will respond and undertake any mitigating actions required to render the situation ‘safe for recovery’ so that the designated Approved Emergency Responder can move in and undertake clean up and recovery.

2. **OBJECTIVES AND PRIORITIES**

2.1. Objectives

The objectives of this ERP are to:

- ensure adequate emergency preparedness with contractors in the event of a discharge or release of lead carbonate concentrate into the environment anywhere along the transport route;
- to communicate vital information in a timely manner to all relevant persons involved in the transport emergency (both internal personnel and external agencies);
- facilitate a rapid and effective emergency response and recovery;
- minimise impact on people, property and the environment;
- ensure containment and sufficient clean-up of all areas affected by discharge or release
- return to normal transport operations
- meet obligations in accordance with Ministerial Statement 905, condition 11-1

This ERP addresses the preparedness, response capabilities and recovery plans of Rosslyn Hill Mining and its transport contractors for dealing with a release of Lead Carbonate Concentrate into the environment anywhere between the mine site and the Port of Fremantle.

2.2. Priorities

During an incident or emergency, priority will be given to:

- ensuring the preservation and protection of human life and health;
- assessing the situation for danger;
• minimising or if able, stopping the release of lead carbonate concentrate into the immediate environment;
• recovery of lead carbonate concentrate to levels as agreed with the OEPA, on advice from DoH and DER;
• monitoring impacts and recovery;
• reviewing Emergency Response Procedures;
• implementing corrective action programs as required;
• reporting to relevant authorities

3. ROLES AND RESPONSIBILITIES.

3.1. Rosslyn Hill Mining

Rosslyn Hill Mining is responsible for the implementation of the ERP as required by Condition 11 of Ministerial Statement 905 and will maintain an active role in monitoring the implementation of the ERP throughout the contractor network in the event that condition 11 of Ministerial Statement 905 is required to be implemented.

Due to the presence of other dangerous goods, particularly in the event of a train derailment or an incident at the Port of Fremantle, Rosslyn Hill Mining may be required only to provide information and support to the incident controllers of the incident.

Rosslyn Hill Mining will communicate to stakeholders and contractors their responsibilities detailed in this ERP and have adequate equipment to implement the ERP as required.

Specifically, Rosslyn Hill Mining is responsible for:

• providing specific product, safety and handling advice to all relevant parties including the Approved Emergency Responder, Emergency Services and any other parties involved in managing any loss of product along the transport route;
• loading lead carbonate concentrate into double laminated water proof and sieve proof bags then into locked shipping containers;
• loading the shipping containers onto trucks using top-lifting equipment;
• appointing an Approved Emergency Responder to control the clean-up response that may result from an incident at any location between the mine-site and the entry point to land owned by Fremantle Ports;
• identifying an Approved Emergency Responder for emergency response within Fremantle Ports;
• reporting lead carbonate concentrate spills to:
  o OEPA;
  o DFES;
  o Department of Environmental Regulation (DER) Pollution Response Unit (PRU);
  o Department of Mines and Petroleum (DMP);
  o Department of Health (DoH);
  o Fremantle Port Authority (FPA); and
  o Relevant Local Government Authorities.
• Agreeing a remediation plan with key Regulator stakeholders and implementing the remediation of a spill site, including any validation sampling required
Rosslyn Hill Mining has direct responsibility for emergency response within its Paroo Station mine-site and mineral lease boundaries and is not addressed within this ERP. Rosslyn Hill Mining’s transport contractor assumes responsibility to provide initial response to an emergency from the end of the lease boundary (truck entry/exit point to the Goldfields Highway).

3.2. **Aurizon**

Aurizon is responsible for:

- transporting locked shipping containers by truck along the designated transport route from the mine site to Leonora in accordance with Figure 1 in the Ministerial Statement 905;
- storage of locked shipping containers in Leonora prior to being loaded onto rail;
- loading and transport of locked shipping containers from Leonora to the Port of Fremantle;
- Creation of a DG specific Emergency Response Plan in the event of an incident or emergency;
- Implementation and initiation of the Emergency Response Plan in the event of an incident or emergency;
- Upon initiation of ERP, immediately notifying Rosslyn Hill Mining emergency contact to advise of the situation

Aurizon is responsible for initiating the emergency response plan from the point the trucks depart from the Paroo Station Mine-Site (this is at the T-intersection at the mine site access road and the Goldfields Highway). This responsibility extends to and includes Intermodal Link Services at the Port of Fremantle as a sub-contractor to Aurizon.

Aurizon is responsible for contracting an Approved Emergency Responder under the Dangerous Goods (Road and Rail Transport of Non-explosives) Regulations 2007 for initial response and will undertake or direct the implementation of the emergency response, making the situation and area safe for clean-up.

Following the notification of an emergency, the Approved Emergency Responder will be contacted by Aurizon and respond as soon as practicable.

The need for additional resources will be determined on an as needs basis if the immediate resources available to Aurizon are not suitable or adequate.

3.2.1. **Aurizon and Brookfield Rail roles and responsibilities for incidents on the rail Leonora to Fremantle**

Brookfield Rail operates and maintains the main rail line between Leonora and Robbs Jetty which Aurizon will use to transport lead carbonate concentrate to Fremantle Ports. Brookfield Rail is responsible for initiating the emergency response and managing the incident site on the line it operates. Incidents occurring on the rail line can include (but are not limited to):

- earthquake;
- fire (aboard train and/or surrounding area);
- flood (including washaways);
- derailments;
- spills and/or leaks;
- collision with infrastructure;
- collision with rail rolling stock;
• collision with vehicles.

Aurizon and Rosslyn Hill Mining will cooperate with Brookfield Rail to isolate and contain the lead carbonate concentrate spill. Aurizon, once the situation has been declared safe, are responsible for the clean-up and removal of rolling stock, Rosslyn Hill Mining are responsible for the clean-up and removal of all spilled product, including the containers.

3.2.2. **Aurizon and Public Transport Authority roles and responsibilities for incidents on the rail line between Robbs Jetty, Fremantle**

The Public Transport Authority (PTA) owns and maintains the main rail line between Robbs Jetty and the entry to Fremantle Ports that Aurizon uses to transport lead carbonate concentrate to Fremantle Ports. The PTA is responsible for initiating the emergency response and managing the incident site for the section of line it operates. Incidents occurring on the rail line can include (but are not limited to):

• earthquake;
• fire (aboard train and/or surrounding area);
• flood (including washaways);
• derailments;
• spills and/or leaks;
• collision with infrastructure;
• collision with rail rolling stock;
• collision with vehicles.

Aurizon and Rosslyn Hill Mining will cooperate with the PTA to isolate and contain the lead carbonate concentrate spill. Aurizon, once the situation has been declared safe, are responsible for the clean-up and removal of rolling stock, Rosslyn Hill Mining are responsible for the clean-up and removal of all spilled product, including the containers.

3.3. **Intermodal Link Services**

Intermodal Link Services (ILS) is responsible for:

• creating and communicating an Emergency Response Plan
• initiating the ILS emergency response plan, should an incident occur, upon:
  - arrival and acceptance of containers into the ILS yard
  - removal of containers from rail at the ILS yard and placement into approved Dangerous Goods Stacks
  - any time containers filled with bags of lead carbonate concentrate are stored in the ILS yards DG storage area
  - until dispatch of containers to the Patrick Berths (7 – 10) and DP World Berths (4 - 6).
• storage of containers;
• movement of containers within ILS yard;
• transport of containers from ILS to the Stevedores.

ILS’s responsibility to initiate emergency response procedures ceases when the containers have been delivered and accepted at the stevedore’s gate house.

If a lead concentrate spill were to occur at this point, ILS would notify the Emergency Services and Rosslyn Hill Mining. Rosslyn Hill Mining will notify their Approved Emergency Responder immediately.
3.4. **Stevedores (Patrick and DP World)**

Stevedores are responsible for the initial emergency response during:

- movement of containers into discharge stacks, using top lifting equipment;
- storage of containers within discharge stacks, using top lifting equipment;
- loading containers onto ships for export, using top lifting equipment.

The responsibility of the Stevedores to respond to an emergency begins once the stevedore has accepted the containers from ILS at the gate house and ends once the containers are loaded onto commercial ships.

If a lead concentrate spill were to occur at this point, the Stevedores would notify the Emergency Services and Rosslyn Hill Mining. Rosslyn Hill Mining will notify their Approved Emergency Responder immediately.

3.5. **Approved Emergency Responder**

The Approved Emergency Responder appointed by Rosslyn Hill Mining will be responsible for the clean-up of any lead carbonate concentrate spill and the subsequent post-incident sampling should a spill occur anywhere along the designated transport route outlined in Ministerial Statement 905. ILS and the Stevedores are responsible for notifying Rosslyn Hill Mining and Emergency Services immediately following an incident to ensure a spill is controlled and the situation made safe. It is the responsibility of Rosslyn Hill Mining, via the Approved Emergency Responder, to make all reasonable efforts to ensure the spill is cleaned up before it contaminates surrounding environments.

3.6. **Department of Fire and Emergency Services (Emergency Services)**

The Department of Fire and Emergency Services (DFES) is the designated Hazard Management Agency (HMA) under the Emergency Management Regulations 2006 for hazardous materials incidents for the whole of the State. Therefore under the Western Australian Hazardous Materials Emergency Management Plan (WESTPLAN – HAZMAT) (DFES 2005), DFES must be notified of any emergency involving hazardous materials.

DFES will respond and undertake any mitigating actions required to render the situation ‘safe for recovery’ so that the designated Approved Emergency Responder can move in and undertake clean up and recovery. While Brookfield Rail, the PTA and Aurizon are recognised as the Incident Controller for all rail incidents, they will call upon DFES, as a combat agency, to manage any aspects of the incident which involves hazardous materials.

DFES’s main priority will be to ensure that any lead carbonate concentrate spill is contained and will not enter or harm the environment. DFES will not play any part in the clean-up of spills, but will ensure that recovery aspects are initiated. DFES are responsible for assessing the incident site and declaring the site safe for recovery.

3.7. **Fremantle Port Authority**

Fremantle Port Authority will be advised by ILS or the Stevedores (Berth Operators) of any lead carbonate concentrate incident occurring within Fremantle Ports. FPA staff will not be responsible for any containment or clean up; however they will be available to provide the following if required:
• port specific information and management of shipping operations;
• incident management support personnel as required;
• an Emergency Liaison Officer in the Berth Operator Control Room if required; and
• coordination of media management with Berth Operator

Within Fremantle Ports, each berth operator has a designated area in which they are responsible for initiating the emergency response to a lead carbonate concentrate spill (Figure 2).

3.8. Department of Environment Regulation (DER) (Pollution Response Unit)

The responsibilities of DER in regards to notification, reporting and investigation are documented in the various sections of this ERP, and within the Environmental Protection Act 1986. After DFES has declared the incident as ‘safe for recovery’ and subsequently leaves the site, DER becomes the lead regulatory agency for the clean-up and decontamination by virtue of the provisions of the Environmental Protection Act 1986. DER also has responsibility under the WESTPLAN – HAZMAT.

Should there be a spill of lead carbonate concentrate, DER will respond to the scene to determine and assign appropriate actions for the responsible party. DER will also consult and advise the responsible parties on the arrangements for clean-up, decontamination of the area, transport of spilled product, required monitoring and validation sampling and analysis.

3.9. Public Transport Authority of Western Australia

In accordance with State Emergency Management Committee Policy Statement No.7, the Public Transport Authority (PTA) of Western Australia is the Hazard Management Agency and Responsible for the management of rail transport incidents on the rail system for which PTA is the managing authority. This is relevant for the rail system from Robbs Jetty to Victoria Quay in Fremantle, for which the PTA is the Managing Authority.
Figure 1 - Responsible parties throughout transport process

Responsibility for the transport process is divided among various parties, including:

- **Responsibility Company**
- **RHMPL**
- **Transport Contractors**
- **Intermodal Contractor**
- **Berth Operators**

The process involves:

- Containers loaded onto road transport at mine site.
- Containers loaded onto trains at Leonora.
- Storage of containers at railhead hardstand.
- Containers unloaded to Berth Operators hardstand.
- Containers placed in discharge stacks.
- Containers loaded onto ships.
Figure 1  Areas of responsibility at the Port of Fremantle

KEY:
Aurizon  
ILS  
Patrick  
DP World
4. RESOURCES

4.1. Emergency Contact List

Emergency contact lists have been provided to relevant personnel during inductions and will be displayed in prominent positions inside transport vehicles and within Fremantle Ports. These contact details form part of and can be located in each organisation’s ERP (Refer Appendix 2 for contacts). These contact lists includes:

- Rosslyn Hill Mining;
- Aurizon;
- Intermodal Link Services (ILS);
- Patrick;
- DP World;
- Approved Emergency Responder;
- Department of Fire and Emergency Services (DFES);
- Public Transport Authority (PTA);
- Fremantle Port Authority (FPA);
- Department of Environmental Regulation (DER);
- Department of Mines and Petroleum (DMP);
- Relevant Local Government Authorities.

4.2. Equipment and Materials

Aurizon, ILS and the Stevedores are required to have the appropriate Personal Protective Equipment (PPE), Spill kits and other equipment (as needed) in the event of a lead carbonate concentrate spill.

Additional equipment may be required and will be sourced as appropriate with consideration given to the location and nature of the spill or incident.

5. CLEAN UP PROCEDURES

Clean up and removal of lead carbonate concentrate from a spill site will be the responsibility of Rosslyn Hill Mining’s Approved Emergency Responder. Prior to any clean-up operation, Rosslyn Hill Mining will action a Job Hazard Assessment and a site specific clean-up plan will be produced.

6. POST CLEAN UP SAMPLING

Sampling will be carried out to validate the effectiveness of clean up in accordance with the Department of Environmental Regulation (DER) guideline Development of Sampling and Analysis Program (2001), with reference to the following Australian Standards:

- AS 4482.1-2005 “Guide to the investigation and sampling of sites with potentially contaminated soil”;
- AS 5667.1:1998 “Water Quality – Sampling Part 1: Guidance of the design of sampling programs, sampling techniques and the preservation and handling of samples”.

Initially, a visual assessment will be undertaken to determine if any evidence of contamination is present. If no visual evidence of contamination is present, a sampling program will then be developed to validate the clean-up. At a minimum, sampling will be undertaken at the site of the spill and within a 20 metre radius around the spill site.
The site specific sampling and analysis program will take into account the existence of nearby sensitive receptors (e.g. wetlands or public recreation areas) and weather conditions.

In the event that visible contamination is evident or post clean up sampling indicates that Rosslyn Hill Mining lead is present in the surrounding environment, DER will be notified immediately and additional clean-up will be undertaken.

Rosslyn Hill Mining and its contractors will cooperate with OEPA and DER Inspectors conducting enforcement investigations and collecting evidence post spill. In consultation with DER, Rosslyn Hill Mining will develop a site management plan that will include:

- a detailed site investigation;
- risk assessment;
- A site cleanup validation process and auditing.

On completion of the site cleanup validation process, a report shall be provided to OEPA and DER (Section 9.3).

7. POST INCIDENT MANAGEMENT

Post-incident management shall include the following key steps:

1. Post incident review and analysis.
2. Further investigations into the cause of the incident, if required (including review of relevant training, management and incident response procedures).
3. Development of a Preventative Action Plan in conjunction with transport contractors to address the cause(s) of the incident and reduce risk of re-occurrence.
4. Preparation of an Environmental Incident Report for provision to the relevant authorities.

The level of detail undertaken at each stage will be dependent on the severity of the incident.

7.1. Post-Incident Analysis

For all major incidents, the General Manager of the organisation responsible for initiating the emergency response, the nominated Rosslyn Hill Mining representative and the DFES Incident Controller will have responsibility to organise a post-incident analysis workshop, and ensure that appropriate representatives from the following are invited:

- Rosslyn Hill Mining;
- organisations with primary emergency response and/or clean up responsibilities (Aurizon, ILS, DP World, Patrick);
- Fremantle Ports (if incident occurred within Fremantle Ports);
- DFES;
- Regulatory agencies (e.g. DER, DMP, DoH, DFES and OEPA);
- Approved Emergency Responder;
- Local Authorities involved in the incident.

The objectives of the workshop are to:

- assess the effectiveness of the emergency response;
- discuss/identify the cause(s) of the incident and preventative actions to be undertaken to minimise future risks;
- discuss/identify opportunities for improving planning and response;
- identify the need for further investigations.
7.2. Investigation and action plan

Rosslyn Hill Mining will be responsible for conducting any further investigation into the factors contributing to the incident and developing a Preventative Action Plan to address cause(s) of the incident and reduce the risk of re-occurrence. This will be done in conjunction with contractors and relevant agencies and will be included in the Environmental Incident Report.

7.3. Reporting

An Environmental Incident Report shall be prepared by Rosslyn Hill Mining and will include:

- incident details and description;
- details of any environmental damage/impact;
- details of clean up and validation undertaken;
- cause(s) and factors contributing to the incident;
- outcomes of the review of training, management and response procedures;
- action plan (if required) to address causes(s) of the incident and reduce risk of re-occurrence.

The Environmental Incident Report will be prepared within the timeframe agreed with the OEPA on advice from the DoH, DMP, DER and provided by Rosslyn Hill Mining to the OEPA, DER, DMP, Department of Transport (DoT), DoH, relevant parties involved in the emergency and relevant Local Government Authorities.

The Environmental Incident Report will be publicly available on the Rosslyn Hill Mining website.

If an emergency event occurs within the Fremantle Port an Environmental Incident Report will, in addition to the above, be provided to the Fremantle Ports Inner Harbour Community Liaison Group.

8. PREPAREDNESS

8.1. Training

The following training will be provided by each contractor to staff involved in the transport of containers containing lead carbonate concentrate based on information provided by Rosslyn Hill Mining:

- Awareness of the Rosslyn Hill Mining Emergency Response Plan;
- Lead awareness.

Aurizon’s Approved Emergency Responder will receive on-going training in areas related to the emergency response of a lead carbonate concentrate spill in accordance with Aurizon’s Training Competency Package.

8.2. Exercises

Emergency exercises are essential to test the Emergency Response Plan and Emergency Procedures. Rosslyn Hill Mining will monitor the implementation of this ERP to ensure that Aurizon, ILS, Patrick and DP World conduct simulated emergency response exercises.

Exercises will include involvement by relevant emergency services and the local community. The exercise will involve a simulation of an emergency involving dangerous goods, implementation of emergency response actions and a post-exercise debrief and a review of the efficiency of the emergency response.

A table-top exercise will be undertaken with one nominated Local Government in the metropolitan region every two years, and a table-top exercise with one nominated Local Government in a non-metropolitan region every two years. Both (metropolitan and non-metropolitan) table-top exercises may occur on alternate years.
or in the same year, depending on consultation with the Local Government, but must occur at least once every two years in both regions.

A simulation exercise will be undertaken with one nominated Local Government in the metropolitan region every five years, and a simulation exercise with one nominated Local Government in a non-metropolitan region every five years.

Both (metropolitan and non-metropolitan) simulations exercises may occur on different years or in the same year, depending on consultation with the Local Government, but each must occur at least once every five years in both regions.

The review will be undertaken by the Incident Manager (or similar) of each organisation and a report circulated to relevant personnel and Rosslyn Hill Mining.

Approved Emergency Responders will organise and conduct exercises based on their requirements for maintaining Emergency Responder Accreditation from DMP.

8.3.  Review of Plan

An annual review of this ERP will be conducted and the plan updated if required. Updated plans will be submitted to the OEPA for approval on advice from DFES, Local Government and Fremantle Port Authority along the transport route. This will be initiated by the Rosslyn Hill Mining OHS&E Manager or Compliance Superintendent.

8.4.  Plan Availability and Distribution

The ERP will be made publicly available on the Rosslyn Hill Mining website and distributed to relevant parties.
9. REFERENCES


10. SHORT TITLES AND ACRONYMS

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<td>ADGC</td>
<td>Australian Dangerous Goods Code</td>
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<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>PTA</td>
<td>Public Transport Authority</td>
</tr>
</tbody>
</table>
Appendix 1
Rosslyn Hill Mining Lead Carbonate Concentrate
Material Safety Data Sheet
**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

**Product name:** LEAD CONCENTRATE

**Synonyms:** LEAD CONCENTRATE.

**CAS No.:** Not applicable.

**EC No.:** Not applicable.

**REACH No.:** Exempt under Annex V, Article 2(7)b of REACH Regulation (1907/2006) and subsequent amendments.

**Supplier Details:**

<table>
<thead>
<tr>
<th>Company:</th>
<th>ROSSLYN HILL MINING PTY LTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACN:</td>
<td>68 075 523 661</td>
</tr>
<tr>
<td>Address:</td>
<td>Suite 1D, 21 Teddington Rd, Burswood Road, Western Australia. 6100. Australia.</td>
</tr>
<tr>
<td>Telephone:</td>
<td>+61 (0)8 9267 7000 (Perth Office)</td>
</tr>
</tbody>
</table>

**Emergency Contacts (Paroo Station Mine Site):**

| Telephone:          | +61 (0)8 9981 2144 |
| Fax:                | +61 (0)8 9981 2164 (Paroo Station Mine Site) |
| Contact:            | OHS&E Manager |
| E-mail:             | info@rhmpl.com.au |

**Use of the Substance/Preparation:** Naturally occurring substance used as a raw material in the production of lead metal.

---

**2. HAZARDS IDENTIFICATION**

**Classification of Substance according to Regulation (EC) No 1272/2008 [CLP/GHS]:**

The classification for **Paroo Station Lead Concentrate** is based on: (1) Harmonised classification and labelling for **lead compounds** (not otherwise specified) as listed in Annex VI to Regulation (EC) No 1272/2008, and (2) Classification for **(Respirable) Crystalline Silica** as recommended by European Association of Silica Producers. The classification for human health hazard is based on product specific elution testing (refer Section 9).

**Hazard classes and Hazard Categories**

<table>
<thead>
<tr>
<th>Acute Tox. (Oral); 4</th>
<th>H302</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. (Inhal.); 4</td>
<td>H332</td>
</tr>
<tr>
<td>Repro. Tox.; 1A</td>
<td>H360(D)(f)</td>
</tr>
<tr>
<td>STOT RE; 2</td>
<td>H373</td>
</tr>
<tr>
<td>Aquatic Acute; 1</td>
<td>H400</td>
</tr>
<tr>
<td>Aquatic Chronic; 1</td>
<td>H410</td>
</tr>
</tbody>
</table>

---

**Material Safety Data Sheet** according to Regulation (EC) No 1907/2006 (REACH)
Classified as a Dangerous Good according to the European Agreement for Carriage of Goods by Road (ADR), and the International Maritime Dangerous Goods Code (IMDG).

Australia:

Classified as HAZARDOUS according to criteria of Safe Work Australia. Classified as a DANGEROUS GOOD, according to the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.
Material Safety Data Sheet

Poisons Schedule: Classified as a Schedule 6 Poison by the criteria for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Risk and Safety Phrases -
Risk and safety phrases are standard phrases used for the classification and labelling of hazardous substances. Risk phrases convey a general description of the physicochemical, environmental and health hazards of a substance. Safety phrases provide information on safe storage, handling, disposal, personal protection and first aid.

RISK PHRASES
R20/22 Harmful by inhalation and if swallowed.
R33 Danger of cumulative effects.
R61 May cause harm to the unborn child.
R62 Possible risk of impaired fertility.
R49 (Category 1) May cause cancer by inhalation.
R50/53 Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES
S13 Keep away from food, drink and animal foodstuffs.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S53 Avoid exposure – obtain special instructions before use.
S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label where possible).
S60 This container and its contents must be disposed of as a hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/ material safety data sheets.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Industrial applications.
Appearance: Dark grey to light grey-brown soil-like solid. It is an amorphous solid ore consisting predominantly of lead mainly in the form of cerussite and anglesite (up to 15% lead content) as well as other silicates, minerals and trace metals found in soil/rock that are not readily separable into the individual components. The components of the ore have been identified and quantified by elemental analysis. The lead concentrate has a minimum 7.5% moisture content at time of shipping.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration % wt/wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (Pb) (mainly present as cerussite – lead carbonate but up to 15% may also be present as anglesite - lead sulphate). Other forms of lead minerals may be present at less than 0.05% including (Pyromorphite, plumbogummite and galena).</td>
<td>7439-92-1</td>
<td>60 - 70</td>
</tr>
<tr>
<td>Silica, Crystalline - Quartz (SiO₂)</td>
<td>14808-60-7</td>
<td>3 - 10</td>
</tr>
<tr>
<td>Cadmium (Cd)</td>
<td>7440-43-9</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>7440-02-0</td>
<td>0.0005 - 0.001</td>
</tr>
<tr>
<td>Sulphur (S)</td>
<td>7704-34-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Iron (III) Oxide (Fe₂O₃)</td>
<td>1309-37-1</td>
<td>1 - 3</td>
</tr>
<tr>
<td>Trace Metals</td>
<td>Not Available</td>
<td>Remainder</td>
</tr>
</tbody>
</table>

Hazardous ingredients (mixture)

<table>
<thead>
<tr>
<th>Component Classification (100%) . . .</th>
</tr>
</thead>
</table>

Product name: Lead Concentrate
Version: 2.0/EN
Revision date: 25 March 2013
Page: 3 of 10
Print date: 25 March 2013
Material Safety Data Sheet

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>EINECS Number</th>
<th>Substance</th>
<th>Concentration</th>
<th>Hazard Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>598-63-0</td>
<td>209-943-4</td>
<td>Lead, as Lead carbonate</td>
<td>60 - 70</td>
<td>Repr. Cat. 1; R61 Repr. Cat. 3; R62 Xn; R20/22 R33 N; R50-53</td>
<td>Acute Tox. (Orale), 4 H302 Acute Tox. (Inhal.), 4; H332 Repro. Tox., 1A H360(D)(f) STOT RE, 2; H373 Aquatic Acute, 1; H400 Aquatic Chronic, 1; H410</td>
</tr>
<tr>
<td>14808-60-7</td>
<td>238-878-4</td>
<td>Silica, Crystalline. Quartz (SiO₂)</td>
<td>3 - 10</td>
<td>Xn; R48/20</td>
<td>STOT RE, 2; H373</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Ingestion:** Rinse mouth with water. Give plenty of water to drink. If poisoning occurs, contact a doctor or Poisons Information Centre. *In Australia Phone 131126.*

**Eye contact:** Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice, especially if irritation persists.

**Skin contact:** If skin contact occurs, remove contaminated clothing and wash affected skin thoroughly. If irritation occurs seek medical advice.

**Inhalation:** Avoid inhaling dust. Remove exposed person to fresh air if adverse effects are observed. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice.

**Notes to physician:** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Specific hazards:** Non combustible solid. Will evolve highly toxic lead oxide fume when heated to decomposition. Evacuate area and contact emergency services *In Australia 000* Remain upwind and notify persons downwind of hazard.

**Extinguishing Media**
Use waterfog, foam, carbon dioxide or dry agent to cool intact containers and nearby storage areas and/or fight fire. Prevent contamination of drains, sewers and waterways and absorb runoff with sand (or similar).

**Fire fighting further advice:** Non-combustible solid. Fire fighters should wear approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

**Australia: Hazchem Code:** 2Z

6. ACCIDENTAL RELEASE MEASURES

For large spills contact emergency services and supplier. Clear area of unprotected personnel; wear PVC/rubber gloves, dust proof goggles, a particulate respirator, coveralls and boots when cleaning spills. Collect and place into sealable containers for treatment and/or disposal. Avoid generating dust. Do not allow contamination to drains, sewers or waterways.

7. HANDLING AND STORAGE
Material Safety Data Sheet

Handling: Carefully read the product label prior to use. Safe work practices should be employed to avoid eye or skin contact and inhalation. Observe good personal hygiene, including thoroughly washing hands before eating. All eating, drinking and smoking should be prohibited in work areas.

Storage: Avoid generating dust. Store in a cool, dry, well ventilated area, and away from oxidising agents, acids and foodstuffs. Ensure product is adequately labelled.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Occupational Exposure Limits:

Europe:

Occupational exposure limits

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Occupational Exposure limit</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union (all member states except those listed elsewhere in this table)</td>
<td>0.15 mg/m³</td>
<td>EU Directive 98/24/EC, LDA International 2008, (11)</td>
</tr>
<tr>
<td>Denmark, Sweden</td>
<td>0.1 mg/m³</td>
<td>TRGS 900, Teil 2, AFS 2000:3</td>
</tr>
</tbody>
</table>

Blood Lead Action Levels* 

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Action level µg/dL</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union (all member states except those listed elsewhere in this table)</td>
<td>40 µg/dL</td>
<td>EU Directive 98/24/EC, LDA International 2008,</td>
</tr>
<tr>
<td>Portugal</td>
<td>30 µg/dL (females) 50 µg/dL</td>
<td>TRGS 900, Teil 2, AFS 2000:3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>30 µg/dL</td>
<td>LDA International 2008</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>25 (females) 40</td>
<td>UK HSE CLAW 2002 (12)</td>
</tr>
</tbody>
</table>

* This values should be only be used in the context of national legislation/standards for the control of lead, for example the UK Control of Lead at Work Regulations (2002). The action levels apply to adult workers and not to children or the general public.

Crystalline silica:

European Union: None listed.

Denmark, Sweden & UK: Quartz, respirable (14808-60-7) 0.1 mg/m³(TWA) (13, 14, 15)

Australia:

No value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC).

However, Exposure Standards for elemental components are as follows (1):

Lead (Pb) (7439-92-1)

TWA: 0.15 mg/m³ (inorganic lead dusts and fumes)

Biological monitoring of blood lead is required:

Females of reproductive capacity: 10 µg/dL
Males and females not of reproductive capacity: 30 µg/dL.
ACGIH Threshold limit value (TLV) (3)
TWA: 0.05 mg/m$^3$ (and inorganic compounds as Pb)
BEI: 30 μg/dl.

Silica, Crystalline - Quartz (SiO$_2$) (14808-60-7)
TWA: 0.1 mg/m$^3$

ACGIH Threshold Limit Value (TLV) (3)
TWA: 0.025 mg/m$^3$ (as α-Quartz, measured as respirable fraction of the aerosol)

Cadmium (Cd) (7440-43-9)
TWA: 0.01 mg/m$^3$ (cadmium and cadmium compounds)

Nickel (Ni) (7440-02-0)
TWA: 1 mg/m$^3$ (metal nickel)
TWA: 0.1 mg/m$^3$ (soluble nickel compounds)

TWA - the Time-Weighted Average (TWA) airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

STEL - Short Term Exposure Limits (STELs) are averaged over a period of 15 minutes and provide guidelines for the control of short-term exposure. STELs are important supplements to the eight-hour TWA exposure standards. STELs are generally established to minimise the risk in nearly all workers of the occurrence of: intolerable irritation, chronic or irreversible tissue change, and narcosis to an extent that could precipitate industrial accidents, provided the TWA exposure standards are not exceeded.

BEI – Biological exposure indices (BEI) are guidance values for assessing biological monitoring results. BEIs generally represent the level of determinants that are most likely to be observed in specimens collected from healthy workers who have been exposed to chemicals to the same extent as workers with inhalation exposure at the Threshold Limit Value (TLV). The BEI generally indicates a concentration below which nearly all workers should not experience adverse health effects.

The Occupational Exposure Standards (OES) are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Engineering measures:** Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Keep containers closed when not in use.

**Personal Protection Equipment:** The selection of PPE is dependant on a detailed site specific risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Wear overalls, safety glasses and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear particulate respirator (P3 filter respirator for toxic particles) meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Do not take working clothes home.
9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Dark grey to light grey-brown soil-like solid. Odourless.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity (t/m³)</td>
<td>5.6</td>
</tr>
<tr>
<td>Bulk Density (t/m³)</td>
<td>2.7-2.9</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>N App</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N App</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>N App</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N Av</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N App</td>
</tr>
<tr>
<td>Decomp. Temp (°C)</td>
<td>315 (approx)</td>
</tr>
<tr>
<td>Flammability Limits</td>
<td>Non Flammable</td>
</tr>
<tr>
<td>Sublimation Point</td>
<td>N App</td>
</tr>
<tr>
<td>Autoignition Temp</td>
<td>N Av</td>
</tr>
<tr>
<td>pH</td>
<td>7.5 - 8.5</td>
</tr>
<tr>
<td>% Volatile by volume</td>
<td>&gt;50%</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N App</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>&gt;50%&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N App</td>
</tr>
</tbody>
</table>

(Typical values only - consult specification sheet)

N Av = Not Available
N App = Not Applicable

<sup>a</sup>Solubility, as determined (4) according to ISO 3711 (1990) by acid digest, EDTA titration, is >50% (52.3 - 53.2%).

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions of use, storage, and transportation as shipped. Not expected to be a combustible solid or self heating substance during transport or storage.

Conditions to Avoid
Incompatible with oxidising agents (e.g. peroxides) and strong acids (e.g. hydrochloric acid). Reacts violently with fluorine, causing fire hazard.

Hazardous Decomposition
Will evolve highly toxic lead oxide fume when heated to decomposition (315 °C).

Hazardous Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet.

No toxicity information available for the product.

Health Effects of Ingredients
A: Lead Carbonate
The half-life of lead in blood is estimated to be 20–40 days. Lead is excreted mainly in urine, very slowly. As a result, chronic exposure leads to the accumulation of lead in the body (6).

Oral administration to humans at 214 mg kg⁻¹ (total dose) for 4 weeks induced jaundice and gastrointestinal changes (5).

B: Inorganic Lead
The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests designed to measure nervous system function (blood lead concentration of greater than 30 μg/dl (6). Exposure also causes small increases in blood pressure due to effects on the kidney (blood lead concentrations greater than 40 μg/dl), particularly in middle-aged and older people and can cause anaemia (clinical symptoms at blood lead levels of at least 80-100 μg/dl) (6). The most sensitive effects in young children and unborn children exposed to lead through their mothers include decreased
mental ability and learning difficulties (6,7,8). A clear exposure threshold for these effects has not been established however the effects are most consistently observed at concentrations greater than 10 μg/dl (6,7,8).

The International Agency for Research on Cancer (IARC) evaluation of lead concluded that lead is possible carcinogenic to humans (Group 2B). The evidence for the carcinogenicity of lead in humans was found to be inconclusive because of the limited number of studies, the small cohort sizes, and the failure to take adequate account of potential confounding variables. The IARC conclusion was based on carcinogenicity studies in rodents conducted with lead salts (lead arsenate and lead phosphate). At relatively high doses (in excess of 10mg/kg) renal toxicity and increases in renal tumours were observed (6,9).

B: Quartz – Crystalline silica
To date, there are no known adverse health effects associated with non-occupational exposure to quartz dust (10). Silicosis is indisputably causally related to occupational quartz exposure, and the dose-response assessments of the adverse health effects of quartz are based on epidemiological studies of occupational cohorts with silicosis. Although a causal association with respiratory cancer has been made from epidemiological studies of workers occupationally exposed to quartz the doses required to cause respiratory cancer is unclear (10). The International Agency for Research on Cancer evaluation of crystalline silica concluded that it is a human carcinogen (Group 1) (9).

12. ECOLOGICAL INFORMATION
Avoid contaminating drains, sewers and waterways.

Ecotoxicity
The toxicity of inorganic lead salts to aquatic organisms is strongly dependent on environmental conditions such as water hardness, pH and salinity, a fact that has not been adequately considered in most toxicity studies (8).

Lead is unlikely to affect aquatic plants at levels that might be found in the general environment (8).

Young stages of fish are more susceptible to lead than adults or eggs. Typical symptoms of lead toxicity include spinal deformity and blackening of the caudal region. The no observed effect concentrations for inorganic lead has been determined in laboratory tests for several species (fresh water as well as salt water) under different conditions, and range from 7-250 μg Pb/L (8).

Environmental Fate
Lead can accumulate in organisms, in particular those feeding primarily on particulate matter. Lead does not biomagnify in the aquatic food chain, as the levels of lead, as well as the bioaccumulation factors, decrease as the trophic level rises (8).

13. DISPOSAL CONSIDERATIONS
Dispose of in accordance with relevant local legislation. Contact manufacturer for additional information.

14. TRANSPORT INFORMATION
European Community:

Land transport (ADR/RID/GGVSE):
UN-No: 2291
Proper shipping name: LEAD COMPOUND SOLUBLE N.O.S (contains 77-82% lead carbonate)
Class(es): 6.1
Packing group: III
Hazard label(s): TOXIC
Special provision(s):

Sea transport (IMDG-Code/GGVSee):
UN No: 2291
Material Safety Data Sheet

Proper shipping name: LEAD COMPOUND SOLUBLE N.O.S (contains 77-82% lead carbonate)
Class(es): 6.1
Packing group: III
Marine Pollutant: P
Special provision(s):

Transport in bulk according to Annex III of MARPOL 73/78 and the IMSBC Code:
Defined as a dangerous good (harmful substance) according to the provisions of the MARPOL 73/78 Annex III
IMSBC Code classification

Australia:

Classified as a Dangerous Good by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

UN Number: 2291
Class: 6.1
Proper Shipping Name: LEAD COMPOUND SOLUBLE N.O.S (contains 77-82% lead carbonate)
Packing Group: III
Hazchem Code: 2Z

International Maritime Dangerous Goods Code classification: Class 6.1, UN Number 2291, Lead compound soluble N.O.S. (contains 77-82% lead carbonate), packing group III.

Do not transport with chemicals of class: 1 (Explosives), 5.1 (Oxidising agents), 5.2 (Organic peroxides) and foodstuffs.

15. REGULATORY INFORMATION

Europe

Protection of workers:
Workplace controls including blood lead action levels for lead and lead compounds are given in the EU Directive (98/24/EC) concerning protection of workers from risk related to exposure to chemical substances at work.

Young people are, with a few exceptions not allowed to work with toxic or very toxic substances (Directive 94/33/EC)

Pregnant workers or workers who are breastfeeding must under no circumstances perform duties for which the assessment has revealed a risk of exposure to lead or lead compounds (Directive 92/85/EEC Annex A and B).

Australia:

Classified as HAZARDOUS according to criteria of Safe Work Australia.

Classified as a Class 6.1, Packing group III Dangerous Good by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Poisons Schedule: Classified as a Schedule 6 Poison by the criteria for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS: All chemical components listed on the Australian Inventory of Chemical Substances (AICS)

16. OTHER INFORMATION

Literary reference
(2) National Standard for the Control of Inorganic Lead at Work [NOHSC:1012(1994)].
(3) 2006 Guide to Occupational Exposure Values. Compiled by American Conference of Governmental Industrial Hygienists (ACGIH).

Contact Point: Registered Manager, Paroo Station Mine Site
Within Australia: Telephone +61 (0)8 9981 2144 Facsimile +61 (0)8 9981 2164 Emergency No. +61 (0)8 9981 2144

Reason for Issue: Version meeting European CLP requirements for material safety data sheets.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This Material Safety Data Sheet is maintained by Rosslyn Hill Mining Pty Ltd in consultation with Toxikos Pty Ltd.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Rosslyn Hill Mining Pty Ltd cannot anticipate or control the conditions under which the product may be use, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact Rosslyn Hill Mining Pty Ltd.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

* * * * End of MSDS * * * *

Product name: Lead Concentrate Version: 2.0/EN Revision date: 25 March 2013
Page: 10 of 10 Print date: 25 March 2013
Appendix 2
Rosslyn Hill Mining Emergency Contact List
## Emergency Contact Listing – Transport Route

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>ROLE</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Fire and Emergency Services - DFES</td>
<td>Emergency Services</td>
<td>000</td>
</tr>
<tr>
<td>Ambulance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Police</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ToxFree Solutions</td>
<td>Approved Emergency Responder (RHM)</td>
<td>1800 429 628 (24 hours, 7 days)</td>
</tr>
<tr>
<td>Response One Environmental</td>
<td>Approved Emergency Responder (Aurizon)</td>
<td>1800 995 539/0448 782 650</td>
</tr>
<tr>
<td>Rosslyn Hill Mining Pty Ltd - RHM</td>
<td>General Manager – Operations</td>
<td>9981 4000/0427 658 081</td>
</tr>
<tr>
<td></td>
<td>OHS&amp;E Manager</td>
<td>9981 4000/0419 193 997</td>
</tr>
<tr>
<td>Brookfield Rail</td>
<td>South West Control</td>
<td>08 9274 9767/1300 687 246</td>
</tr>
<tr>
<td></td>
<td>Eastern Control</td>
<td>08 9274 9797/1300 987 246</td>
</tr>
<tr>
<td></td>
<td>Central Control</td>
<td>08 9272 4627/1300 087 246</td>
</tr>
<tr>
<td></td>
<td>EGR Control</td>
<td>08 9272 4690/1300 087 246</td>
</tr>
<tr>
<td></td>
<td>South Control</td>
<td>08 9274 9757/1300 987 246</td>
</tr>
<tr>
<td></td>
<td>Northern Control</td>
<td>08 9274 9770/1300 987 246</td>
</tr>
<tr>
<td>Aurizon</td>
<td>NOSC (National Operations Service Centre)</td>
<td>08 9454 0421</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COUNCIL</th>
<th>ROLE</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Canning</td>
<td>CEO</td>
<td>08 9231 0603</td>
</tr>
<tr>
<td>City of Cockburn</td>
<td>CEO</td>
<td>08 9411 3401</td>
</tr>
<tr>
<td>City of Fremantle</td>
<td>CEO</td>
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<td>Shire of Laverton</td>
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<td>Shire of Mundaring</td>
<td>Manager Health and Community Safety Services</td>
<td>08 9290 6659</td>
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<td>Shire of Northam</td>
<td>Executive Manager Development Services</td>
<td>08 9622 6100</td>
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<td>Shire of Tammin</td>
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<td>08 9637 1550</td>
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<td>Shire of Yilgarn</td>
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<td>08 9049 1001</td>
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<td>Town of Kwinana</td>
<td>Director of Operations and Technical Services</td>
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<tr>
<td>Department of Environment Regulation (DER)</td>
<td>Director, Environment Regulation</td>
<td>08 6467 5300</td>
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<td>Office of the Environmental Protection Authority (OEPA)</td>
<td>Compliance Branch Manager</td>
<td>08 6145 0813</td>
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<td>Department of Health (DOH)</td>
<td>Director, Environmental Health</td>
<td>08 9388 4999</td>
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<td>Department of Transport (DOT)</td>
<td>Executive Director, Ports, Marine and Planning</td>
<td>08 6551 6211</td>
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<td>Fremantle Port Authority</td>
<td>Environmental Manager</td>
<td>08 9430 3566</td>
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<td>Patrick Stevedores</td>
<td>Terminal Manager</td>
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<td>Intermodal Link Services (ILS)</td>
<td>Safety Manager</td>
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<td>Yard Manager - NQRT</td>
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Appendix 3
Brookfield Rail Control Boundary
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<th>Station</th>
<th>Train Control Desk</th>
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<tr>
<td>North Quay Terminal</td>
<td>18 KM PTA (Not BR)</td>
<td>Booraan</td>
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<td>Fremantle</td>
<td>21 KM PTA (Not BR)</td>
<td>Burracoppin</td>
<td>312 KM EGR</td>
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<tr>
<td>Esplanade (To Robb Jetty Station Limits)</td>
<td>23 KM PTA (Not BR)</td>
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<td>Robb's Jetty</td>
<td>28 KM South West</td>
<td>Bodalin</td>
<td>354 KM EGR</td>
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<td>Cockburn</td>
<td>36 KM South West</td>
<td>Moorine Rock</td>
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<td>Canning Vale (Kwinana Side)</td>
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<td>Canning Vale (Kenwick East Side)</td>
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<td>Forrestfield</td>
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<td>Stewart</td>
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<td>Bonnie Vale (To W.Kalgoorlie Station Limits)</td>
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<td>121 KM Central</td>
<td>West Kalgoorlie</td>
<td>645 KM South</td>
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<td>Seabrook</td>
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<td>655 KM South</td>
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<td>132 KM Central</td>
<td>Broad Arrow (From Kalgoorlie Station Limits)</td>
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Note: Green area is PTA territory