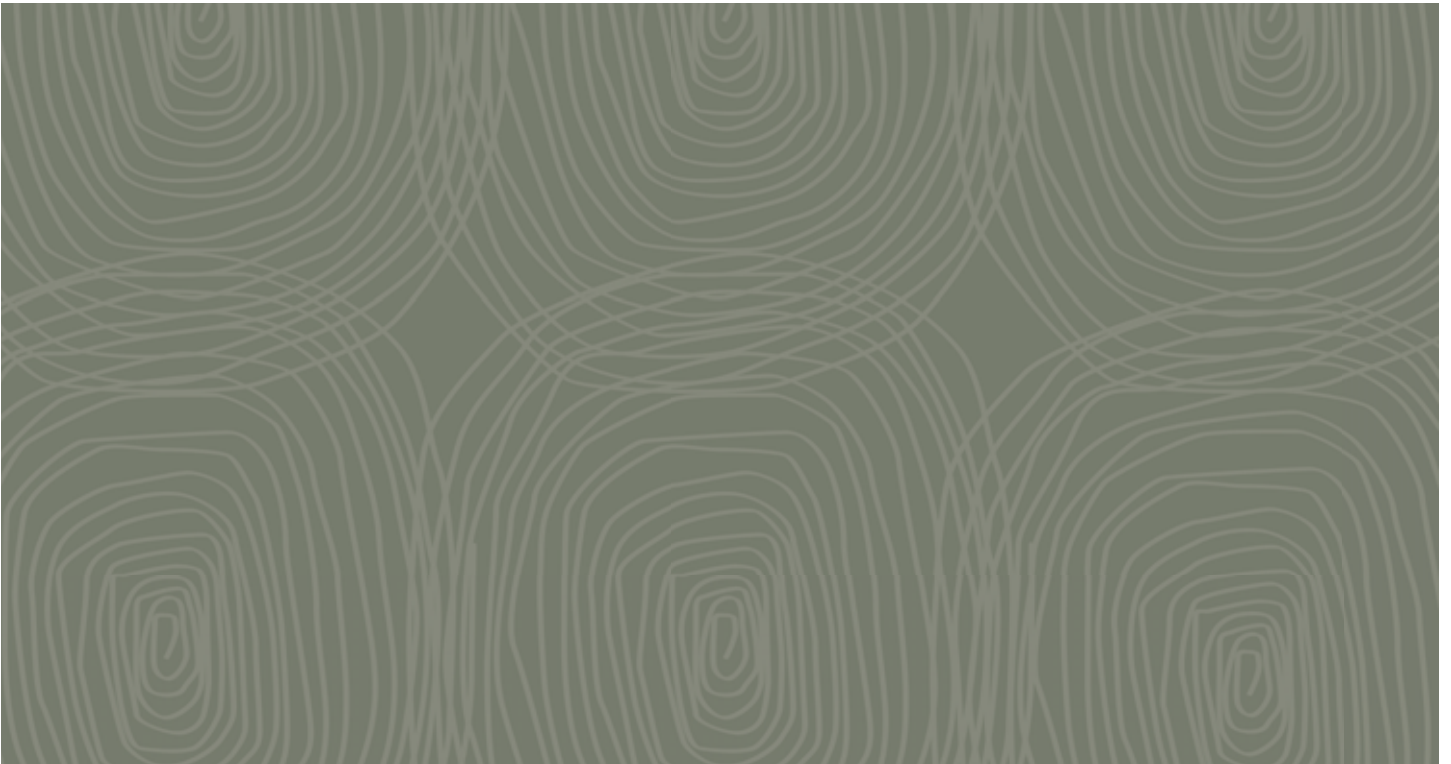


## 08 | Land Contamination





## Section 08 Land Contamination

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### 8.1 Overview

A Preliminary Site Investigation (PSI) within the proposed Kevin's Corner Coal Mine Project (the Project) site was undertaken as part of the Environmental Impact Statement (EIS) (Volume 2, Appendix K). The objective of the PSI was to examine and identify any environmental issues or risks that have a potential to impact the environment at the Project site as a result of land contamination caused by current and/or past land use practices, and that may be a liability for future owners or operators of the site.

The PSI comprised a desktop review including historical and current title searches, historical aerial photograph interpretation, searches of the Department of Resource and Environmental Management's (DERM) Environmental Management Register (EMR) and Contaminated Land Register (CLR), and a physical inspection of the Project site.

### 8.2 Summary of Results

The Project comprises six land parcels as presented in the land use and tenure section (Volume 1, Section 6). The majority of the land parcels associated with the Project are currently utilised for cattle grazing. A review of current and historical titles as well as historical aerial photographs indicated the majority of the Project area has been vacant grasslands used for cattle grazing. The remaining area is remnant bushland, and the north-western corner is an open space and recreation zoned area (Cudmore Resources Reserve).

A search of DERM's EMR and CLR was carried out for the site. The results of the register search indicated no lots were listed on either register.

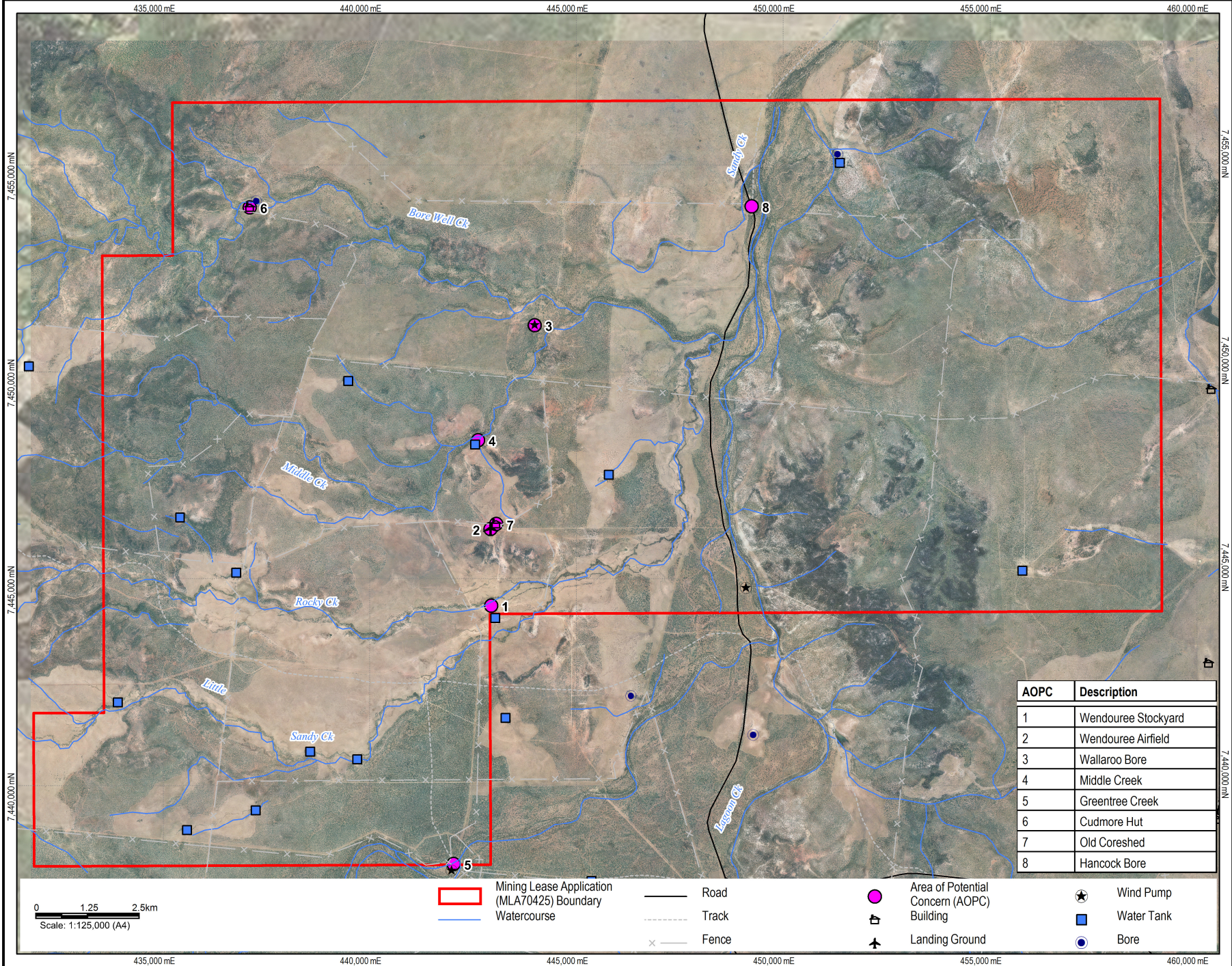
A site inspection conducted by URS between 9 and 12 October 2010, indicated that there are a few minor contaminated areas resulting from fuel storage, waste oil storage and minor pesticide and herbicide use. There were no other recognised significant potential contamination concerns observed during the site visit or review of historical site data. The Project site appeared generally well maintained and few potential sources of contamination were identified over relatively small portions of the site.

Areas of interest identified during the site inspection are shown on Figure 8-1 and include:

- AOPC 1 - Stockyard located on Wendouree – a pneumatic crush was identified in this location, and evidence of minor pesticide use was noted;
- AOPC 3, 4 and 5 - Stock watering areas, in particular Wallaroo Bore;
- AOPC 2, 7 and 8 - Mineral exploration activities (old mineral exploration core shed and Hancock Bore);
- Defunct farming equipment; and
- Creeks – infrequent spraying along the creek lines is undertaken for parthenium and rubbervine.







Source: See Copyright Details below and for full disclosure Please Refer to the EIS Volume 1 - References

Datum: GDA94, MGA Zones5



#### I HANCOCK GALLIEE PTY LTD  
Kevin's Corner Project  
Environmental Impact Statement

LAND CONTAMINATION  
AREAS OF POTENTIAL  
CONCERN

Job Number | 4262 6660  
Revision | B  
Date | 12-09-2011  
Figure: 8-1

File No: 42626660-g-1046.wor  
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## 8.3 Potential Impacts and Mitigation Measures

### 8.3.1 Potential Impacts

The principal risks for land contamination from the construction and operation of the Project result from:

- Hydrocarbon storage and use;
- Chemical storage and use;
- Landfill;
- Waste and reject handling and storage; and
- Potential for acid rock drainage (ARD).

Due to the size of the Project and the resultant large fleets of mobile machinery, the site will have a large inventory and usage of hydrocarbons (fuel and lubricants) and chemicals. Spills from the use or storage of these materials have the potential to impact the surrounding environment. Additionally, there is potential for land contamination as a result of the landfill if appropriate management strategies are not adopted. Further discussion relating to these strategies is presented in Volume 1, Section 16 of this EIS.

Finally, the handling and storage of mining waste is an area of long-term potential impact to the environment. The incorrect handling and storage of the mine waste (rejects and tailings) and some of the overburden could result in poor quality artificial recharge, acid mine drainage, and salinity impacts to the surrounding groundwater and surface water environments in particular. A detailed assessment of the potential impacts of these waste streams is presented in Volume 1, Section 16 of this EIS.

### 8.3.2 Potential Mitigation Measures

Mitigation measures to avoid the contamination of soil, surface water and groundwater, as well as the treatment of previously identified potentially contaminated land, are given below:

- Prior to any development of the Project site taking place, a protocol will be developed to further assess (and manage as required) the identified areas of potential contamination in accordance with DERM's *Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland* (DERM, 1998). These assessments will include site inspections as deemed necessary and possible soil and groundwater testing where required;
- Stockpiles, workshop areas, chemical stores, fuel tanks and other waste disposal/storage areas will be located on hardstand, compacted soils or concrete pads. As runoff from these areas may be contaminated, it will be collected using appropriate drainage and water management structures. Potentially contaminated runoff may be remediated, reused in the mining or processing operations, or disposed of in an approved manner;
- Relevant Australian Standards (e.g. for the storage and handling of flammable and combustible liquids and dangerous goods) will be complied with, and all chemical and fuel storage areas will be bunded.





- Where possible, hazardous chemicals and materials will be replaced with less harmful alternatives. Material safety data sheets for chemicals used or brought to the site will be kept in a central register on-site and at the area of use and be readily available to workers at all times;
- Putrescible waste will be recycled or disposed of on-site into an approved engineered landfill (refer to Volume 1, Section 16). Site personnel will be trained in the operation and procedures for this installation to reduce the potential for unauthorised waste disposal;
- Spills will be cleaned up as soon as possible. In particular, designated site vehicles and appropriate facilities will be equipped with spill kits. For significant chemical or fuel spills, the site emergency response plan will be followed and the appropriate authorities notified as soon as possible;
- Detailed records will be kept of any activities or incidents that have the potential to result in land contamination. Records will be kept in an inventory that contains information on storage locations, personnel training, monitoring data, and disposal procedures for appropriate chemicals, fuel and other potential contaminants used on-site. Records will be maintained by the Proponent and made available to relevant authorities on request. Regular inspections of containers, bund integrity, valves, and storage and handling areas will be carried out by suitably qualified personnel; and
- All staff will be trained as part of their site induction in appropriate handling, storage and containment practices for chemicals, fuel and other potential contaminants, as relevant.

All mine waste and rejects identified as potentially acid generating or potentially harmful to the environment will be handled in accordance with the mitigation measures outlined in Volume 1, Section 16 of this EIS. These mitigation measures will include the adequate containment of the tailings material to prevent potential groundwater and surface water impacts, as well as the appropriate management of potential ARD material to reduce the potential for acidification and resultant groundwater and surface water impacts.