

# FINAL REPORT

Caval Ridge, Contaminated Land Preliminary Site Investigation

Prepared for

### **BHP Billiton Mitsubishi Alliance**

Level 33 Riparian Plaza 71 Eagle Street Brisbane, QLD, 4001 24 October, 2008 42626265

# CAVAL RIDGE, CONTAMINATED LAND PRELIMINARY SITE INVESTIGATION

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## **Executive Summary**

URS Australia Pty Ltd. (URS) was commissioned by BHP Mitsubishi Alliance (BMA) to perform a preliminary site investigation (PSI) on the Caval Ridge project site south of Moranbah, Queensland, as part of a Baseline Environmental Study report. The PSI was conducted in accordance with the Queensland EPA's *Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland* (May 1998).

The objectives of the PSI were to evaluate and identify potential contaminated sites within the project site as a result of current and past practices, to allow BMA to identify potential liabilities should mining activity be planned for the site.

The Caval Ridge project site is comprised of two sections which are split by Cherwell Creek. The northern section covers 4,581 Ha of pastoral farmland and is located approximately 6 km south of Moranbah, Queensland. The topography of the area is mostly flat to rolling hills and has little remnant vegetation. The area is located adjacent to the Moranbah Access road to the east and crosses the Peak Downs Highway, with the southern boundary being Cherwell Creek to the north of the Peak Downs Mine. The southern section covers 1,926 Ha and encompasses the area between Cherwell and Harrow creeks with the northern and southern boundaries being the limits of the Mining Lease ML1775 and a new mining lease fenceline south of the Northern Haul Road. This southern area is mainly within the Peak Downs Mine operational boundaries.

A review of historical title information and historical aerial photographs indicates the project site has been used for pastoral farming for the last 50 years, with some minor land parcels being used for other activities. The Peak Downs Mine northern pits (known as Heyford pit) are located on a single land parcel (Lot 18 on GV135).

A review of the available geological information indicates that the area is underlain by undifferentiated Cainozoic sands and sandy soils, some Tertiary aged basaltic flows of the Suttor Formation and areas of Cainozoic sands overlying the Blackwater Group (consisting of siltstone, quartz sandstone, lithic sandstones and calcareous and carbonaceous sandstones in places).

Anecdotal evidence provided by interviews with landholders suggests that no groundwater bores are used in the project site or on the surrounding farms. It is not known at the time of this investigation the extent of groundwater extracted by the BMA Peak Downs Mine within the project site.

Site visits were conducted by URS in December 2007 and April 2008 to inspect a number of areas indicated as possible areas of concern from the site history review and interviews conducted with Peak Downs Mine personnel and local landholders. A number of specific sites were noted as potential areas of concern within the larger project site:

- The Kalari trucking workshop and yard has a number of activities with potential impacts to soil and groundwater;
- A set of cattle yards was identified as having potential impacts from pesticide use;
- An inhabited farmers cottage and shed has potential for impacts from fuel storage and pesticide use;
- A rifle range on the Horse Creek property may have potential lead impacts;
- Dragline transformer past and current locations on the Peak Downs Mine may have potential for petroleum and coolant oils impacts;
- Mobile fuel tanks used at the Peak Downs Mine may have potential for petroleum impacts to soils and water;
- Un-rehabilitated exploration drill pads on the Peak Downs Mine area; and
- Official and unofficial parking areas and waste off-load areas on the Peak Downs Mine.

Limited soil samples have been collected for analysis at locations where it would appear leaks or spills have occurred beneath mobile plant on the mining lease. These have been analysed for heavy metals, TPH, BTEX, PAH/Phenols and PCBs.



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Analysis of limited soil samples collected from beneath an identified mobile transformer and mobile fuel tank indicate probable diesel fuel spills that occurred historically. Characterisation of the vertical and lateral extent of these impacts should be determined with consideration of the intended land use for the duration of the project (e.g. continuing hydrocarbon storage) and intended land use at end of mine life. Where contamination is identified prior to, or following, use of land, on-site remedial works should be conducted based on the intended land use.

Further investigations on the indicated sites are recommended to address the potential impact of the identified areas of concern, to assess the potential risks associated with these areas, and to quantify the extent of any liabilities in terms of any cost to remediate, if required. This investigation should be conducted in the context of the eventual land use for each site.

URS recommends that BMA perform a further investigation to delineate, remove and validate the cattle yard area prior to any disturbance and before any box-cut spoil is emplaced. Additionally, URS recommends that BMA locate and remove the soils that were originally stripped from the yards that have been "temporarily stored" elsewhere on site and include them in the remediation effort.



# Section 1 Introduction

### 1.1 Purpose

As part of the Baseline Environmental Study for the Caval Ridge Project, URS Australia Pty Ltd (URS) was commissioned by BHP Billiton Mitsubishi Alliance Coal Operations Pty Ltd (BMA) to undertake a Preliminary Contaminated Land Site Investigation (PSI) to evaluate the potential for contaminated land within the Caval Ridge Project site (project site), shown in **Figure 1**.

### 1.2 Site Description

The project site is located north of the operational BMA Peak Downs Mine, 6 km south of Moranbah and 190 km south-west of Mackay. The project site covers the northern extent of the BMA Mining Lease (ML 1775) from the northern bank of Harrow Creek to the Moranbah Access road near the Moranbah Airport and part of the future Mining Lease application (formerly MDLA 364 and 366) running along the western boundary of ML1775. Based on the current land use, the project site has been split into two sections, for the purposes of this assessment:

- Northern section grazing, small commercial businesses and mine exploration; and
- Southern sections mining and exploration activities.

Each of these sections has a different history of potentially contaminating activities. **Figure 1** shows the boundaries of the northern and southern sections as assessed in this report.

The project site overlaps the following tenements:

- ML 1775 BHP Coal Pty Ltd and Others (C.Q.C.A.) (Status: Granted [expires 31 December 2010])
  - Lots 14 and 16 on SP163605;
  - Lots 7,8,9 and 10 on RP615467;
  - Lot 14 on GV116;
  - Lot 13 on GV225;
  - Lot 18 on GV135;
  - Lot 4 on SP174999;
  - Lot 4 on RP884695; and
  - Lot 13 on SP151669.
- Future Mining Lease application by C.Q.C.A (formerly MDLA364 and MDLA 366)
  - Lot 16 on SP163605;
  - Lot 1 on RP616897;
  - Lot 10 on SP137499
  - Lot 14 on GV116;
  - Lot 13 on SP151669);
  - Lot 47 on GV226; and
  - Lot 18 on GV135.

The project site covers approximately 6,507 hectares. The area is located within Belyando Shire (now part of the Isaac Region) and the northern section comprises predominantly of large rural holdings of and



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# Section 1 Introduction

partially-cleared pastoral land. The southern section incorporates the northern-most pits of the Peak Downs Mine and includes land used for mining infrastructure. Moranbah Township is located approximately 6 km to the north of the project site.

The northern section of the project site primarily consists of the Horse Creek property and the eastern and part of the southern section of the Buffel Park property, some smaller lots including the Kalari Trucking workshop and a small section of the Heritage Boarding Kennels and Cattery.

The southern section of the project site consists primarily of the operational Peak Downs mine between the Cherwell Creek diversion and Harrow Creek.

Large rural holdings of pastoral land surround the project site to the east, west and immediate north; and the operating BMA Peak Downs Mine is located to the south. There are no National Parks, State Forests or Nature Reserves in or around the vicinity of the project site. Key features of the project site are shown on **Figure 1**.

Land tenure boundaries, including mining tenements are presented in Figure 2.

## 1.3 Scope of Works, Objective and Methodology

The objective of this PSI was to identify potential and/or actual contamination within the Project site, in accordance with the *Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland* (1998). To achieve this objective the following investigations were undertaken:

- a site history assessment, including a review of current and historic titles and aerial photographs and interviews with local land holders and Peak Downs Mine employees to identify historical activities that have had the potential to cause contamination of the site;
- identification of any areas listed on the Environmental Management Register (EMR) or Contaminated Land Register (CLR) under the Environmental Protection Act (1994);
- site inspection to assess of the environmental setting of sites and surrounding areas to identify potential sources and areas of site contamination; and
- preparation of a report detailing the investigations undertaken, the findings of the assessment, and a
  discussion of the findings including an outline of applicable further investigations and remediation
  options, where warranted.



# Section 2 Site Information

### 2.1 Land Use

### 2.1.1 Current land use

The northern section of the project site is comprised predominantly of large pastoral properties used for beef cattle grazing with other minor uses in the project site as follows:

- The Kalari Trucking workshop and yard (Lot 16 on SP163605) and the Heritage Boarding Kennels and Cattery (Lot 4 on RP884695) are located on the north-eastern section of the project site adjacent to the Moranbah Access Road;
- One inhabited homestead (Lot 14 on SP163605) and an inhabited cottage (Lot 13 on SP151669)
  with a cattle holding yard, are located within the project site. Both the homestead and cottage have
  self contained water supply and septic systems.

Moranbah airport is located approximately 200 metres to the north-east of the project site (Lot 17 on GV130). The airport consists of a runway, small aircraft fuelling depot with above-ground tanks, a small reception building and a toilet block with septic tank. The airport is within the boundaries of ML1775 but is not included in the project site for Caval Ridge.

The Shell roadhouse is located approximately 2.5 kilometres to the west of the project site on the corner of the Peak Downs Highway and the Moranbah Access Road. This is a small operation consisting of fuelling bowsers, short-order restaurant, shop and truck parking area.

The southern section of the project site comprises the northern three pits of the operational Peak Downs Mine and the associated infrastructure. This area contains 10 North, 11 North and 12 North ramps and haul road and is collectively known as the Heyford pit. The area has not been actively worked for a number of years although some overburden removal and blasting works have recommenced in 2008.

The southern project site is delineated by the diversion of Cherwell Creek to the north-west, ML1775 to the north-east, the diversion of Harrow Creek to the south-east and the south-western boundary of the future Mining Lease (formerly MDLA 366).

Figure 2 shows the land use and land tenure details for the affected properties.

### 2.1.2 Proposed Development

URS understands BMA wishes to develop an open Cut Coal mine with associated access, coal washing facility and rail loop. **Figure 4** shows the location of infrastructure and the development plan over the life of the proposed mine. Further information about the proposal may be found in the Caval Ridge Mine Environmental Impact Statement (URS, 2008).

## 2.2 Environmental Setting

### 2.2.1 Geology and Soil

According to the Geological Survey of Queensland 1:250,000 Series, Clermont Sheet, the area is underlain by undifferentiated Cainozoic sands and sandy soils, with some Tertiary aged basaltic flows of the Suttor Formation and the Blackwater Group (consisting of siltstone, quartz sandstone, lithic sandstones and calcareous and carbonaceous sandstones in places).

The Caval Ridge Project – Soil Survey and Assessment report (GSS Environmental, 2008) states the following regarding the geology and soils of the project site:

The study area is situated over a section of the Moranbah Coal Measures, which range in thickness from 250 m to 300 m, and variably consist of sandstone, shale, mudstone and coal. The aggregate thickness of coal in the Moranbah Coal Measures ranges from 12 m to 24 m, and may consist of up to eight seams.



# Section 2 Site Information

The study area consists of the following geomorphological land zones of Cainozoic age:

- Alluvial plains and piedmont fans adjoining the Cherwell & Heyford Pits;
- Clay deposits under gently undulating plains within the Cherwell Pit area;
- Sand deposits on extensive flat or gently undulating plains adjoining the Heyford Pit;
- Igneous rocks, flood basalts forming extensive plains and occasional low scarps to the north of the Cherwell Pit; and
- Duricrusts formed on a variety of rock types.

Further detailed information is available in the Geology and Soils section of the Caval Ridge Coal Mine Environmental Impact Statement (URS, 2008).

### 2.2.2 Topography

The topography of the general area is generally flat to rolling. Gullies associated with watercourses extend to 3-4 metres below the surrounding natural ground surface

The topography of the catchments within the project site is generally flat to undulating. Elevation across the project site ranges from 220 mAHD to 274 mAHD, and surface slopes <1% grading to east-north east towards the Isaac River which is the most prominent regional drainage feature. The majority of the catchment has been cleared for agriculture (cattle grazing) and several small farm dams have been constructed within the catchment to support these agricultural activities.

### 2.2.3 Surface Hydrology and Hydrogeology

### Hydrological Overview of the Caval Ridge Project site

The project site covers tributary streams of the Isaac River in the headwaters of the greater Fitzroy River catchment. The area is generally divided by a relatively indistinct ridgeline between two watersheds: the northern watershed includes Horse Creek and tributaries; the southern watershed includes Nine Mile Creek, Cherwell Creek and tributaries. Within the project site, Harrow and Nine Mile Creeks join Cherwell Creek and downstream (east) of the project site, Cherwell Creek joins the Isaac River. Horse Creek joins Grosvenor Creek (Isaac River tributary).

All watercourses and tributaries within the project site are ephemeral watercourses. Periods of flow are generally short and limited to periods during and after rainfall. There is no evidence of significant contribution to stream flows from groundwater sources.

### Hydrogeology of the Caval Ridge Project site

URS has installed a 16 groundwater monitoring bores at the project site during 2008, water samples from these bores indicate groundwater is brackish to saline and not contaminated by heavy metals, however was not analysed for Total Petroleum Hydrocarbons(TPH) or Benzene, Toluene, Ethyl benzene and Xylene (BTEX). The report concluded that the groundwater is not generally suitable for human use or irrigated agriculture. The groundwater is generally usable for livestock watering, however some bores had salt levels above the ANZEC (2000) guidelines. For further information refer to the Caval Ridge Groundwater Report (URS 2008)

### 2.2.4 Groundwater Extraction

The Caval Ridge Groundwater Report (URS 2008) did not identify any groundwater bores used in the project site or in the surrounding farms. BMA Peak Downs Mine do not currently extract groundwater for use at the Peak Downs Mine within the project site. URS has installed 16 groundwater monitoring bores at the project site.



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# Section 2 Site Information

## 2.2.5 Ecological Health

This report did not assess the ecological health of the project site, however an ecological assessment has been undertaken for the project site. Refer Ecological Assessment – Caval Ridge Coal Mine Project (BAAM 2008)



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### 3.1 Title Searches

A search of current and historical land titles (1969 to 2007) available from the Department of Natural Resources and Water (DNRW) was undertaken. Relevant title and site ownership information is summarised in **Table 3-1** and certificates of title are provided in **Appendix A**. Easements and roadways have been included in the project site but have not been investigated as potential contamination sources for the purposes of this assessment.

Based on this title search, the majority of the properties within the project site have historically been used for grazing purposes.



Table 3-1 Current and Historical Titles: ML1775 MDLA 364 and MDLA366

Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
16	SP163605	ML1775 And MDLA364	BHP Coal Pty LTD UMAL Consolidated PTY LTD BHP Queensland Coal Investments PTY LTD QCT Mining PTY LTD QCT Investment PTY LTD QCT Resources PTY LTD Mitsubishi Development PTY LTD	Horse Creek	Title 50513874 created: 26/08/2004	Registered to current owner on 30/11/2005 Sec 14 A Notation No 601083730 cancelled by 709095065 the provisions of Section 147A of the Land Act 1962 – 1990 apply to the transfer of the whole or part of the land (31/12/1984) Easement No 601198349 was created on 14/12/1987 burdening the land to Utah Development Company, Mitsubishi Development Pty Ltd over easement A on CP GV80 under Section 285 of the Land Act. Easement No 601198350 was created on 14/12/1987 burdening the land to Utah Development Company, Mitsubishi Development Pty Ltd over easement F on CP GV77 under Section 285 of the Land Act. Easement No 601098887 was created on 30/05/1989 burdening the land to Lot 5 on RP616898 over easement B on RP620008. Lease No 709177539 was created on 30/11/2005 for Kalari Pty Ltd (Lease C on SP160222. Term 01/08/2003 – 31/07/2010. Amendment No 709177550 to lease 709177539 - 30/11/2005. Previous title 5036352 (created 01/10/2001) has been fully cancelled. Registration of title 50367352 was to Geoffrey Hornery and Sandra Hornery on 01/09/2001 and the land was registered as Lot 5 on SP135741.
14	SP163605	ML1775	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY  LTD  QCT Mining PTY LTD  QCT Investment PTY LTD  QCT Resources PTY LTD  Mitsubishi Development PTY LTD		Title 50513873 created: 26/08/2004	Registered to current owners on 30/11/2007 Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303).  Easement No. 601198350 was created on 14/12/1987 burdening the Utah Development Company, Mitsubishi Development Company Pty Ltd over easement F on CP GV77 under Section 285 of the Land Act.  Previous title 5036352.  Lot 14 on SP16305 was created when Lot 5 on SP135741 was



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
						subdivided into Lot 14 and 16 on SP163605 on 29/07/2004. Lot 5 on SP135741 was registered to Geoffrey Hornery and Sandra Hornery on 01/10/2001.
4	RP884695	ML1775	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY  LTD  QCT Mining PTY LTD  QCT Investment PTY LTD  QCT Resources PTY LTD  Mitsubishi Development PTY LTD		Title 50066755 created: 26/04/1995	Registered to current owner on 30/11/2005 Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 10 on CP GV303).  Easement No 601198350 was created on 14/12/1987 burdening the land to Utah Development Company, Mitsubishi Development Pty Ltd over easement F on CP GV77 under Section 285 of the Land Act Previous title 50023954
13	SP151669	ML1775 And MDLA364	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY  LTD  QCT Mining PTY LTD  QCT Investment PTY LTD  QCT Resources PTY LTD  Mitsubishi Development PTY LTD		Title 50416979 created: 27/11/2002	Registered to current owner on 03/09/2004 Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 12 on CP GV274).  Previous title 30563093 has been filly cancelled. Title 30563093 (created 03/09/1986) was registered to  William Murphy, Alison Murphy, Edward Murphy and Glenda Rowe (registration date has not been provided). Land was registered as Lot 12 on GV274.  Lot 12 on GV274 subdivided the land into Lots 12 and 13 on SP151669 on 21/11/2002.  Easement in gross (601351201) for Queensland Electricity Transmission Corporation Ltd on 07/07/1999.  Easement in gross (No. 601351201) was cancelled by 703437100 burdening the land to Queensland Electricity Commission over easement A on RP613854 on 12/04/1988.  Sec 147A Notation No. 601083730 the provision of Section 147A of the Land Act 1962 – 1990 apply to a transfer of whole or part of the land (31/12/1984)This land was subdivided into lots 12 and 13 on SP151669 on 21/11/2002.  Lot 12 on GV274 was registered to Alison Murphy, Edward Murphy, Glenda Rowe and Casimir (Mark) Rowe on 09/09/1993.



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
7	RP615467	ML1775	Maxwell John Davis		Title 30580008 created 06/04/1988	Registered to current owner on 05/10/1994 Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 10 on CP GV303).  Easement No 601198349 was created on 14/12/1987 burdening the land to Utah Development Company, Mitsubishi Development Pty Ltd over easement A on CP GV80 under Section 285 of the Land Act Previous title 30578009, Original title Vol. C 580 Fol 8 was registered to Thomas Deguara, Victor Deguara and Gerard Deguara on 6/04/1988 Geoffrey Hornery and Julie Hornery were registered on 25/11/1988
8	RP615467		BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY LTD  QCT Mining PTY LTD  QCT Investment PTY LTD  QCT Resources PTY LTD  Mitsubishi Development PTY LTD		Title 30580009 created 06/04/1988	Registered to current owner on 02/11/2005. Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 10 on CP GV303). Easement No 601198349 was created on 14/12/1987 burdening the land to Utah Development Company, Mitsubishi Development Pty Ltd over easement A on CP GV80 under Section 285 of the Land Act Previous title 30578009 has been fully cancelled. Previous title30574181 and 30575169 Title Vol. C 580 Fol 8 was registered to Thomas Deguara, Victor Deguara and Gerard Deguara on 6/04/1988 Previous owners Geoffrey Hornery and Sandra Hornery registered on 14/11/1988.
9	RP615467	ML1775	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY LTD  QCT Mining PTY LTD  QCT Investment PTY LTD		Title 30580010 created 06/04/1988	Registered to current owner 20/11/2005 Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 10 on CP GV303). Easement No 601198349 was created on 14/12/1987 burdening the land to Utah Development Company, Mitsubishi Development Pty Ltd over easement A on CP GV80 under Section 285 of the Land Act



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
			QCT Resources PTY LTD Mitsubishi Development PTY LTD			Previous title 30578009, Title Vol. C 580 Fol 8 was registered to Thomas Deguara, Victor Deguara and Gerard Deguara on 6/04/1988 Geoffrey Hornery and Julie Hornery were registered on 25/11/1988
10	RP615467	ML1775	Maxwell John Davis		Title 30580011 created 06/04/1988	Date not provided for the registration of the current owner. Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 10 on CP GV303). Previous title 30578009 Title Vol. C 580 Fol 8 was registered to Thomas Deguara, Victor Deguara and Gerard Deguara on 6/04/1988 Maxwell Davis was the registered owner on 08/11/1988
13	GV225	ML1775	Alison Murphy Edward Murphy, Glenda Rowe Casimir (Mark) Rowe		Title 30563082 created 03/09/1986	Rights and interests reserved to the Crown by Deed of grant No. 30574181 (Lot 13 on CP GV225).  Sec 147A (of the Land Act 1962-1986) Notation No 601083730 (13/12/1984) to transfer the whole or part of the land.  Title was transferred to current owners on 29/09/1993.  Easement in Gross No 601334226 was created on 12/09/1986 burdening the land to portions 14 and 18 in the parish of Moranbah, portions 10 and 9 in the parish of Winchester and portions 7, 11 and 13 in the parish of Vermont over easement C on CP GV80 under the Land Act.  Previous registration No Vol. C 563 Fol 82 was registered to William Murphy, Alison Murphy, Edward Murphy and Glenda Rowe on 03/09/1986
14	GV116	ML1775 and MDLA366	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY  LTD  QCT Mining PTY LTD  QCT Investment PTY LTD		Included in title 17560077 created 21/10/1995	Incorporated in SL12/42239. SL 12/42239 was granted for Industrial (coal mining) and has a term of 30 years (01/01/1979 – 31/12/2009) Conditions under the lease are provided in Appendix A. Encumbrances Sub lease No 602809097 (17/03/1982 – 30/12/2010). Sublessees:



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
			QCT Resources PTY LTD Mitsubishi Development PTY LTD			William Murphy and Alison Murphy, Joint Tenants Inter SE ½ Edward Murphy and Glenda Rowe over part Sub lease No 602809098 (23/08/1983 – 30/12/2010) Sub lessee Australian Telecommunications Commission over part Easement No 602809098 was created on 30/031984 the within described holding derives a benefit from each of the servient tenements as were created pursuant to registered in gross easements Nos A783, A800, A803, A805, A813, A814, A815, A818, A819, A820, A821, A827, A850, A851, A1022, A1057, A1099, A1130, A1132, A1268, A1271 and A1496. Sub lease No 705807943 created 19/07/2002 for Australian Nitrates Pty Ltd of part of the land. Sub lease No 705893942 (sub lease 705807943) was created on 23/08/2002 for Kalari Pty Ltd. Sub lease No 706811928 was created n 21/07/2003 for Dyno Nobel Asia Pacific Limited as part of the land. Several notices under the vegetation Management Act 1999 and the Water Act 2000 are listed under the Administrative Advices (refer to Appendix A for further details)
18	GV135	ML1775 and MDLA366	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY  LTD  QCT Mining PTY LTD  QCT Investment PTY LTD  QCT Resources PTY LTD  Mitsubishi Development PTY LTD	Peak Downs Mine	Included in title 17560077 created 21/10/1995	Incorporated in SL12/42239. SL 12/42239 was granted for Industrial (coal mining) and has a term of 30 years (01/01/1979 – 31/12/2009) Conditions under the lease are provided in Appendix A. Encumbrances Sub lease No 602809097 (17/03/1982 – 30/12/2010). Sublessees: William Murphy and Alison Murphy, Joint Tenants Inter SE ½ Edward Murphy and Glenda Rowe over part



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
						Sub lease No 602809098 (23/08/1983 – 30/12/2010) Sub lessee Australian Telecommunications Commission over part Easement No 602809098 was created on 30/031984 the within described holding derives a benefit from each of the servient tenements as were created pursuant to registered in gross easements Nos A783, A800, A803, A805, A813, A814, A815, A818, A819, A820, A821, A827, A850, A851, A1022, A1057, A1099, A1130, A1132, A1268, A1271 and A1496.  Sub lease No 705807943 created 19/07/2002 for Australian Nitrates Pty Ltd of part of the land.  Sub lease No 705893942 (sub lease 705807943) was created on 23/08/2002 for Kalari Pty Ltd.  Sub lease No 706811928 was created n 21/07/2003 for Dyno Nobel Asia Pacific Limited as part of the land.  Several notices under the vegetation Management Act 1999 and the Water Act 2000 are listed under the Administrative Advices (refer to Appendix A for further details)
10	SP137499	ML1775 and MDLA 366	BHP Coal Pty LTD  UMAL Consolidated PTY LTD  BHP Queensland Coal Investments PTY  LTD  QCT Mining PTY LTD  QCT Investment PTY LTD  QCT Resources PTY LTD  Mitsubishi Development PTY LTD	Peak Downs Mine	Included in title 17560077 created 21/10/1995	Incorporated in SL12/42239.  SL 12/42239 was granted for Industrial (coal mining) and has a term of 30 years (01/01/1979 – 31/12/2009)  Conditions under the lease are provided in Appendix A.  Encumbrances  Sub lease No 602809097 (17/03/1982 – 30/12/2010). Sublessees:  William Murphy and Alison Murphy,  Joint Tenants Inter SE ½  Edward Murphy and Glenda Rowe  over part  Sub lease No 602809098 (23/08/1983 – 30/12/2010) Sub lessee  Australian Telecommunications Commission over part  Easement No 602809098 was created on 30/031984 the within described holding derives a benefit from each of the servient



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
						tenements as were created pursuant to registered in gross easements Nos A783, A800, A803, A805, A813, A814, A815, A818, A819, A820, A821, A827, A850, A851, A1022, A1057, A1099, A1130, A1132, A1268, A1271 and A1496.
						Sub lease No 705807943 created 19/07/2002 for Australian Nitrates Pty Ltd of part of the land.
						Sub lease No 705893942 (sub lease 705807943) was created on 23/08/2002 for Kalari Pty Ltd.
						Sub lease No 706811928 was created n 21/07/2003 for Dyno Nobel Asia Pacific Limited as part of the land.
						Several notices under the vegetation Management Act 1999 and the Water Act 2000 are listed under the Administrative Advices (refer to Appendix A for further details)
4	SP174999 ML1775 BHP Coal Pty LTD	BHP Coal Pty LTD	Peak Downs Mine	Title: 50559416 created on: 17/06/2005	Registered to current owner on 08/06/2005.	
				ivilite	17/00/2003	Previous title 50236366 (created 25/09/1998 ) and 50236368 (created 25/09/1998 ) have been fully cancelled
						Previous title 50232621 (created 01/09/1998 ) has been fully cancelled
						Deed of grant (ref 40016509) created on 27/08/1998 granted Lot 4 on CP906162 to Beryl Anne Neilsen with the following reservations to the Crown:
						All minerals on and below the surface of the land
						The right of access for the purpose of searching and working any mine
						All petroleum on or below the surface of the land
						All rights and access for searching and operation of obtaining petroleum and rights of way for pipelines
						All quarry material on or below the surface of the land.
						Land was subdivided (date unknown) from Lot 4 on GV135.
						Previously the land was incorporated into a Lease of Grazing Homestead Freeholding Lease no. 12/2161. This lease commenced on (01/07/1969) for a term of thirty years and was
						granted to David Alexander Nielsen.



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
47	GV226	MDLA366	BHP Coal Pty LTD UMAL Consolidated PTY LTD BHP Queensland Coal Investments PTY LTD QCT Mining PTY LTD QCT Investment PTY LTD QCT Resources PTY LTD Mitsubishi Development PTY LTD		Included in title 17560077 created 21/10/1995	Incorporated in SL12/42239. SL 12/42239 was granted for Industrial (coal mining) and has a term of 31 years (01/01/1979 – 31/12/2009) Conditions under the lease are provided in Appendix A. Encumbrances Sub lease No 602809097 (17/03/1982 – 30/12/2010). Sublessees: William Murphy and Alison Murphy, Joint Tenants Inter SE ½ Edward Murphy and Glenda Rowe over part Sub lease No 602809098 (23/08/1983 – 30/12/2010) Sub lessee Australian Telecommunications Commission over part Easement No 602809098 was created on 30/031984 the within described holding derives a benefit from each of the servient tenements as were created pursuant to registered in gross easements Nos A783, A800, A803, A805, A813, A814, A815, A818, A819, A820, A821, A827, A850, A851, A1022, A1057, A1099, A1130, A1132, A1268, A1271 and A1496. Sub lease No 705807943 created 19/07/2002 for Australian Nitrates Pty Ltd of part of the land. Sub lease No 705893942 (sub lease 705807943) was created on 23/08/2002 for Kalari Pty Ltd. Sub lease No 706811928 was created n 21/07/2003 for Dyno Nobel Asia Pacific Limited as part of the land. Several notices under the vegetation Management Act 1999 and the Water Act 2000 are listed under the Administrative Advices (refer to Appendix A for further details)
4	RP818135					Title has been fully cancelled Lot 4 on RP 818135 was subdivided into Lot 4 and 5 on RP884695 on 07/04/1995. Previous title 30583034 (created 22/09/1988) has been fully



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
						cancelled. Registration of 30583034 was to Geoffrey Hornery and Sandra Hornery on 285/11/1988 The land was registered as Lot 4 on RP620007,
						Lot 4 on RP620007 was subdivided into Lots 1 and 4 on RP818135 on 31/08/1994.
						Previous title 30578219. No information was found.
						Certificate of title Vol. C583 Fol. 34 was registered to Thomas Deguara, Gerard Deguara and Victor Deguara on 22/19/1988. This land was registered as Lot 4 on RP620007.
						Previous title Vol. C578 Fol.219. No information was found.
5	SP135741.					This title has been fully cancelled
						Lot 5 on SP135741 was subdivided into Lot 14 and 16 on SP163605 on 29/07/2004
						Survey Plan No 707928810 was removed 28/07/2004.
						Previous title 50066756 (created 26/04/1995) has been fully cancelled. Registration of 50066756 was to Geoffrey Hornery and Sandra Hornery on 07/04/1995 and the land was registered as Lot 5 on RP 884695
						Lot 5 on RP 884695 was subdivided into Lots 5 and 11 on 21/09/2001.
						Previous title 50023954 (created 20/10/1994) has been fully cancelled. Registration of 50023954 was to Dealing No. 700197702 on 31/08/1994, the land was registered as Lot 4 on RP818135.
4	RP616987					Title Vol. C575 Fol. 169, issued 12/10/1987 was registered to Thomas Deguara, Victor Deguara and Gerard Deguara.
						Easement No. C416948 was registered to Utah Development Company and Mitsubishi Development Pty Ltd over Easement A and B on RP 614090 produced on 21/05/1981 and registered on 03/07/1981.



Lot No	Plan No	Mining Tenement within the project site	Owner / Lessee	Property Name/Mining Area	Current Title	Title Details
10	GV303					The Deed of Grant registered as Vol. C574 Fol. 181, issued 08/12/1987 was registered to Thomas Deguara, Victor Deguara and Gerard Deguara.  Easement No A818 was created on 14/12/1987 to Utah Development Company, Mitsubishi Development Pty Ltd over easement A on CP GV80 under Section 285 of the Land Act Easement (C543276Y) by resumption is taken by the Northern Electrical Authority of Queensland over Easement A on Plan GV91 under Section 285 of the Land Act on 14/12/1987.  Easement (C543280L) by resumption is taken by the Northern Electrical Authority of Queensland over Easement C on Plan GV293 and Easement B on Plan GV294 under Section 285 of the Land Act on 14/12/1987.
1	RP616897	Future Mining Lease	Steven Thomas Murphy		30578011	Title Vol. C578 Fol. 011 issued 08/12/1987 was registered to V.G Deguara Holdings and transferred 19/02/1988 to Steven Thomas Murphy.  Easement (C55546W) benefits the land over Easement D on RP620270 lodged 27/07/1988  Easement in Gross (C543280L) burdening the land to the Queensland Electricity Commission over Easement Con CPGV293 under Section 25 of the Land Act on 14/12/1987, Transferred to the QETCL on 07/07/1999



### 3.2 Aerial Photographs

As part of the site history assessment a review of historical aerial photography, available from the DNRW was undertaken. Aerial photography runs flown in 1957, 1966, 1977, 1985 and 2000 were reviewed. A BMA aerial photography run flown in late 2007 was also used for a depiction of current conditions.

The aerial photographs show the development of the infrastructure such as the Moranbah Airport, Peak Downs Mine, dams, the road network and several buildings. The aerial photographs also show land being cleared over time for pastoral or cultivation purposes. A review of the aerial photographs did not identify any evidence of a dip, race or dripping yards, however, it is possible that they occur.

**Table 3-2** provides an overview of the development of the project site based on available historical aerial photography and historical title information.

Table 3-2 Historical Aerial Photograph Survey

DNRM&W Aerial	Scale	Project Site Description	Description of Surrounding
Photos	23313		Areas
Q820 run 2, no. 06-12, Q825 run 3, no.172-176 Q8266 run 4, no. 06-10 Q8266 run 5, no. 58-61 September and October 1957	1:26,000	The project site is shown to be partially cleared pastoral lands with fences and some dams on creeks. No dwellings are visible within project site.	Surrounding areas are shown to be partially cleared pastoral lands with fences and some dams on creeks. Peak Downs highway and Moranbah access road have been built, however, Peak Downs mine and Peak-Downs - Dysart road have not. Land for the Moranbah airport site has been cleared, although the runway is not visible.
Q1702 run 1, no. 181-183, Q1702 run 2. No .215-217 September 9, 1966	1:40,000	Land clearing in the area known currently as the Horse Creek property has occurred - no other development is visible.	No changes noted from previous photographs.
Q3357 run 2, no. 7794- 7795 Q3357 run3, no. 7805-7808 Q3358 run 4, no. 7878- 7882 Q3358 run 5, no. 7891- 7894 July 2, 1977	1:25,000	The project site has been extensively cleared. Tracks are visible on the southern section of the project site and towards the current Peak Downs mine site, south of the project site. A number of borrow pits can be identified in and around the project site and more dams are visible than in previous years. There is an industrial yard where the current Kalari workshop and yards now stand.	The Moranbah airport has been completed at this time. No other changes noted from previous photographs.
Q4444 run 2, no. 124-125 Q4444 run 3, no. 173-175 August 21, 1985 Q4444 run4 no. 183-187 Q4446 run 5 no.22-29 September 3, 1985	1:25,000	Further clearing of natural vegetation has taken place in the southern section of the project site. Tracks, major fences and minor fences are clearly visible.	Contour banks for cropping purposes and green crops are visible in the areas to the east and south east adjacent to the project site. More farm buildings are visible than in previous years. No changes to areas west and north of the project site
QAP5838 run 2 no. 128- 132 QAP5838 run 3 no. 135- 138 QAP5838 run 4 no. 194- 197 July 16, 2000	1:40,000	Central cattle yards on Horse Creek and associated fencing are visible in the northern section of the project site. Peak Downs mine northern pits (2 kilometres south-east of the peak downs highway) are clearly visible and the diversions of Cherwell Creek and Harrow Creek (the southern boundary of the project site)	Homesteads on Buffel park and Horse Creek properties and minor cottages are visible. Cropping activities have taken place to the east and south east of the project site.



DNRM&W Aerial Photos	Scale	Project Site Description	Description of Surrounding Areas
		have taken place.	
BMA supplied mosaic (Nov 2007)		The area south of the Peak Downs highway appears vegetated; the area to the north appears to be cleared of natural vegetation. There is no mining activity visible in the southern section of the project site.	It is unclear if cropping activities have continued around the project site as in previous years.

### 3.3 Review of Government Registers

### 3.3.1 Vegetation Management Notices

There are vegetation management notices over the land parcels owned by BMA. It is currently unknown why these notices have been applied.

### 3.3.2 Environmental Protection Agency (EPA)

Activities identified as being likely to cause contamination are listed as notifiable activities under Schedule 2 of the *Environmental Protection Act 1994* (EP Act). It is a requirement of the EP Act that the Queensland Environmental Protection Agency (EPA) be informed of any area that has been utilised for a notifiable activity or contaminated by a hazardous contaminant. 'Notifiable Activities' under Schedule 2 of the EP Act include, but not limited to, petroleum product or oil storage, cattle dips, landfills, abrasive blasting, chemical storage, mineral processing and disposal of mine wastes. The EPA maintains two registers of contaminated sites in Queensland:

- The Environmental Management Register (EMR); and
- The Contaminated Land Register (CLR).

The EMR is a land use planning and management register. The EMR, pursuant to section 374 of the *Environmental Protection Act 1994*, records land that has been used for a notifiable activity (i.e. land use that may cause land contamination) as well as land that has been impacted by a hazardous contaminant. The EMR provides information on historic and current land use. Sites recorded on the EMR pose a low risk to human health and the environment under the current land use and listing of a site on the EMR does not automatically mean the land must be remediated or that the current land use must cease (EPA, 2007).

The CLR is a register of 'risk' sites. If it has been scientifically proven that a site is contaminated, the site is registered on the CLR and action is required to either remediate or manage the site to reduce the risk of potentially serious harm to the environment and human health.

A search of the EPA's EMR and the CLR was undertaken for the land parcels listed in **Table** 3-1, search results are also provided in **Appendix B**. There are three land parcels listed on the EMR:

#### Northern Section

Lot 14 on GV116 is listed on the EMR for the notifiable activity of Petroleum Product or Oil storage.

#### Southern Section

Lot 18 on GV135 is listed on the EMR for the notifiable activity of Petroleum Product or Oil storage.



- Lot 10 on SP137499 is listed on the EMR for the following notifiable activities:
  - Chemical Manufacture or Formulation;
  - Chemical Storage;
  - Explosives Production or Storage;
  - Waste storage Treatment or Disposal;
  - Petroleum product or Oil Storage; and
  - Mine Wastes.

No other land parcels are currently listed on the EMR. The search identified no land parcels within the project site listed on the CLR.



# Section 4 Site Investigation

### 4.1 Northern Section

A site inspection and discussions with leaseholders and employees at the Peak Downs Mine was conducted at a number of sites within and adjacent to the northern section of the project site between November 21, December 16, 2007 and in March 2008. In addition to a general site inspection the following locations were identified following the aerial photograph review and were targeted during the site inspection:

- Kalari Trucking Workshop and Yard;
- Cattle yards and local farm shed;
- Possible sawmill;
- Rifle Range;
- Homestead and cottage;
- EMR identified lot (Lot 14 GV116);
- Gravel pit;
- The proposed MIA; and
- Proposed rail loop.

A description of each of these locations is provided below and their locations are shown on **Figure 3**. **Figure 4** shows the locations of these areas overlaid on the proposed mine plan.

### 4.2 Southern Section

A site inspection and discussions with employees at the Peak Downs Mine was conducted at a number of sites within the southern section of the project site on March 16, 2008. In addition to a general site inspection the following locations were identified following the aerial photograph review and interviews and were targeted during the site inspection:

- Dragline transformer;
- Toilet facilities for mine staff;
- Un-rehabilitated exploration drill pads;
- Lots identified on EMR (Lot 18 on GV135 and Lot 10 on SP137499);
- Mobile fuel tanks; and,
- Parking areas / waste areas.

A description of each of these locations is provided below and their locations are shown on **Figure 3**. **Figure 4** shows the locations of these areas overlaid on the proposed mine plan.

Soil samples were taken at specific sites where soil staining or fuel odours were noticed. The results of ALS Brisbane Laboratory analyses of these samples are provided below in **Section 7.3**.



## **Section 5**

## **Potential Contamination Sources**

### 5.1 Northern Section

### Kalari Trucking Workshop and Yard

The Kalari Workshop and Yard is located on the north-eastern section of the project site on Lot 16 on SP163605, (**Figure 3**). The workshop and yard maintains long-haul trucks servicing the mining industry. Activities undertaken at the site include:

- preventative maintenance of long haul trucks and trailers including:
  - tyre changes,
  - oil and lubrication maintenance.
  - mechanical inspection and testing,
  - minor paint touch-ups and body cleaning.
- storage of items and substances for the purposes of vehicle maintenance;
- oil/water separation of oily liquid wastes from maintenance and washing activities;
- sediment trapping from the wash down pad;
- storage of defunct equipment and bulk chemical transport containers;
- a break and refreshment area for staff, with self contained water and septic systems; and
- administrative offices for supervisors.

During the site inspection and subsequent communication with the Kalari workshop and yard site supervisor several potential contamination sources or evidence of potential contamination were identified. Potential sources include: oil staining, minor oil or detergent spills, potential heavy metal contamination at the wash down area, sediment tank and surrounds, stored empty agricultural chemical containers, disused empty diesel and fuel storage tanks, unknown chemical bulk transport containers and a soil stockpile area at the front of the gate to the yards and workshop.

The vehicle wash-down area comprises a concrete slab (approximately 5 metres by 15 metres – shown in **Plate 1**) with gravity drainage to a coarse sediment trap (see **Plate 2**). This trap drains to an in-ground tank along with the wastewater stream from the oil separator (see below). Trucks coming to the workshop are used to transport vehicles and supplies to industries and mines within the Bowen Basin and elsewhere. There is potential for the wash-down pad, sediment traps, wastewater tank and surrounding areas to be impacted by heavy metals and other debris inadvertently picked up at these industrial sites during delivery activities and transported on the undercarriage and bodies of the trucks back to the vard.

The inspection pit is located within the workshop floor; it has a concrete floor and is lined with concrete blocks. At the time of the inspection the pit appeared to be in a well maintained and reasonably clean condition with no cracks visible in the floor. **Plate 3** shows the inspection pit.

Waste oil and water mixtures from maintenance activities are diverted to a triple interceptor, separated oil is transported to an above ground waste oil storage tank (stored in one of the shipping containers at the site) and water and sediment is transported to an in-ground storage tank, see **Plate 4**. JJ Richards is contracted to remove waste from this sediment trap and water and sediment from the in-ground tank on an as-needs basis. The above ground waste oil tanks can hold up to 1,000 L. Northern Queensland Resources removes the waste oil from the storage tank on a monthly or as-needs basis.

Minor quantities of spray paint cans and other commercially packaged chemicals (radiator additives, glass cleaners, corrosion inhibitors etc.) are stored in the maintenance store room, see **Plate 5**. The store



### **Section 5**

### **Potential Contamination Sources**

room has an uncracked concrete floor and at the time of the inspection appeared to be in a clean and ordered condition with items stacked neatly in safety cupboards.

During the site inspection several empty pesticide containers were observed, see **Plate 6**. URS was advised by the site supervisor that these containers are cleaned and rinsed 3 times before entering the yards. They are cut open and used as temporary traps to collect waste oil.

Several small and large fuel and/or chemical storage tanks and drums are stored at the site. URS was advised by the site supervisor that these units are not currently being used and had been cleaned prior to being placed in their current locations (**Plate 7**, **Plate 8** and **Plate 9**). During the site investigation these units were empty.

Oily rags and used oil filters are stored in an empty 205 litre drum (**Plate 10**) before being collected by Environmental Recovery Services (ERS).

Several dry wood, scrap metals and domestic waste collection bins are located on the site (**Plate 11**). Waste from these bins is collected by JJ Richards.

Several shipping containers appear to be permanently situated at the site. Most of the containers were inspected during the site visit, but access to some was not possible as the containers were blocked by equipment or otherwise inaccessible. Those that were inspected contained oil drums, a lubrication room and paints as mentioned above, see **Plate 12** and **Plate 13**.

URS was advised that the drum stored adjacent to the wash down area contained 'Biosol' detergent. Evidence of leakage from this drum was apparent during the site visit, see **Plate 14** 

Several 205 litre drums of oil are located around the yards and workshop. In the lubrication room these drums are on a concrete floor with no visible cracks noted. At the time of the inspection the floor appeared to be clean, however there were several stains (**Plate 15**). Open drums are placed on drum drip trays designed to collect drips or spills. Oil from these drums is piped through the wall into the maintenance area. Within the maintenance area, a catchment bucket is located under the hose that is used to distribute oil around the workshop (see **Plate 16**). Other drums located at the site were either placed on pallets or on the ground.

Used tyres are removed from site by a qualified contractor as needed. The septic sewage tank for the amenities on site is pumped once a year by a qualified contractor. ERS remove waste engine coolant water and waste solvent from the parts washer (**Plate 17**) as needed.

**Plate 18** shows a soil stockpile at the front gate of the Kalari yard contained within a wooden structure. No information regarding the source or nature of this material was available during the investigation.

Licenses and permits were not available at the time of the site inspection. Due to the time limitation for this investigation, these have not been provided at this time. This information will be made available to BMA in the near future.

#### Cattle Yards

A cattle yard is located on Lot 13 on SP151669 (see **Figure 3**). The yard is near the eastern boundary of the project site, approximately 1500 m to the north of the Peak Downs -Clermont highway.

The yards are approximately 50 m by 75 m and constructed of steel posts and wooden rails. This area is divided into a number of smaller yards for separating cattle. During the inspection feeding troughs, a small crush for inspection and a loading ramp built at the north-east corner were present at the cattle yards. Currently the yards are used as a small feedlot and holding pen for cattle by the current landholder.

The surrounding terrain and underlying base for the yard are silty sands. The yard itself has been lined (approximately 300-500 mm) with a layer of fill comprising of mechanically compacted clay and gravel. Overlaying this is a floor comprising of sandy silt with a thickness of 70-100 mm. The yard is situated near the cottage and shed (described below).



## Section 5 Potential Contamination Sources

It is understood from discussions with the leaseholders at the time of the site inspection, that the cattle yard had been in use as a feed lot and holding yards for cattle since the 1950s.

Anecdotal evidence available through leaseholder consultation indicates that in the 1990s the Department of Primary Industries (DPI) conducted residue tests on the meat from animals that had been held in these yards and found some form of contamination. URS understands that the DPI issued a remediation order to have the top 300 – 500 mm of soil excavated and disposed of, and clean fill be laid. The current leaseholder indicated that this was duly carried out. URS understands that cattle held in the yards were later tested and the meat from these animals was found to be acceptable. A local resident indicated that the excavated soil was taken and stockpiled elsewhere on Lot 12 on SP151669 (Buffel Park), which is located outside the project site.

BMA has contacted the DPI and local council to request information from this event. It is understood that there is no further information to be found relating to the type of contamination, amount of material removed and type and quantity of backfill that was imported to site. There is also no information given regarding the location and nature of storage of the removed material, any delineation exercise to determine the limits of possible contamination or any validation sampling done to ensure all possible contaminated material had been removed.

**Figure 4** shows the cattle yard in relation to the proposed mine plan for the Caval Ridge Mine development. The yard location is expected to be in the proposed spoil dump location and will require a delineation and remediation exercise before any spoil material is placed in this area.

Plate 19 and Plate 20 show the cattle yard.

#### Possible Sawmill Location

Consultation with employees at the Peak Downs Mine and leaseholders indicated that a small saw mill was located in the 1970s on Lot 14 on GV116, (see **Figure 3**).

The Non Indigenous Cultural Heritage Survey of Caval Ridge, Central Queensland (Archaeo, 2008) states the following in relation to the saw mill:

Located in the southern part of the Study Area, are three piles of sawn timber; the only remnants of a saw mill that apparently once existed in the area. Leaseholder consultation indicates this small mill was built during the 1970s by a local landowner in response to the large amount of timber being cleared in preparation for the Peak Downs mining operation. Immediately east of the piles of sawn timber are stock piles of lumber.

Anecdotal evidence suggests that the sawmill may have also been used during the construction of the original diversion of Cherwell Creek (approximately 1990) to saw felled trees into railway sleepers. It was not known whether the timber was sawn by a fixed or mobile sawmill or if the railway sleepers were treated.

A site walkover of the general area showed the saw mill had been removed, leaving a number of piles of off-cut lumber and un-sawn trees (see **Plate 21**). There was no other indication of the exact location of the sawmilling operation.

### Rifle Range

Discussions with local leaseholders indicated the presence of a rifle range and barbecue pit within the northern section of the project site, see **Figure 3**.

Following the site inspection it was found that the rifle range was used by a limited number of patrons for recreational purposes only. The assumed shooting targets were mounted on star pickets and placed in front of a bunded area. Due to the nature of activities in this area, there is potential for lead to be present in the soil that forms the bund and in the surrounding area.

Plate 22 and Plate 23 show the rifle range.



## **Section 5**

## **Potential Contamination Sources**

### Homestead and Cottage

There is one occupied homestead (on Lot 14 on SP163605) and one occupied cottage (Lot 13 on SP151669) located within the project site, shown in **Figure 3**.

The homestead is situated approximately 750 metres from the Moranbah Access road on the northeastern boundary of the project site and comprises a small house and caravans. This dwelling has selfcontained potable water and septic systems.

The cottage is situated adjacent to the cattle yards on Lot 13 on SP151669. The shed associated with the cottage and yard was visually inspected, the farmer was storing minor quantities of herbicides, pesticides, small engine lubricants and fuels, including a 205L fuel tank with a hand pump, and empty fuel drums - typical of farms in the area. The cottage has self-contained potable water and septic systems.

Plate 24 and Plate 25 show the local farm shed on Lot 13 on SP151669.

#### **EMR Identified Site**

The review of the EMR identified that Lot 14 on GV116 was listed for the notifiable activity of Petroleum Product or Oil Storage. Discussions with local land holders and employees at the Peak Downs mine were undertaken as well as a site inspection within the project site boundary in an attempt to ascertain the location of this storage activity. The storage facility or a possible storage facility location was not identified during the site inspection – the reason for listing this land parcel on the EMR may relate to mobile fuel storage and use.

Further investigations to determine the location or previous location of the storage facility are required.

#### **Gravel Pit**

During the site inspection a gravel pit was identified at the northern boundary of the project site, (shown on **Figure 3**). The pit is situated on relatively flat land and is approximately 1.5 m deep, approximately 40 metres wide and 100m long. There is no extraction activity currently being undertaken at the pit. No information regarding the operation of the pit was available at the time of the investigation. There are piles of unidentified spoil material and broken rock in the centre of the pit, see **Plate 26**.

Sail material and a Perspex dome are located adjacent to the west of the pit. During communications with a local resident it was indicated that this material was the remains of the roof for the Moranbah shopping centre square. It was removed in a redevelopment of the shopping centre in 2005. It is unknown why this material was discarded in this location, however, it is not considered likely to be a potential contamination source.

### 5.2 Southern Section

#### **Dragline Transformers**

Peak Downs staff consultation indicated that at Peak Downs mine, mobile step-down transformers are used to convert 66kV power to 11kV three-phase electricity for use by draglines. The transformers are parked at the end of electricity transmission stublines, and power is delivered to the draglines by cables laid along the ground.

The transformers are on a caterpillar-tracked chassis and are earthed. The transformer is self-driven when moving between locations and is diesel powered. At the time of the site inspection, there were two draglines and transformers within the project site. Peak Downs staff indicated that each transformer had been in place for approximately 6 months to a year and it was usual for a transformer to remain at a station for up to two years. **Plate 27** shows a mobile transformer.

**Figure 3** shows the locations of the transformers in the project site during the site inspection. Both transformers had some oily staining around spigots (see **Plate 28**), and on the outside of the windings cases (**Plate 29**). Fresh leaks or pooled oils were not noted.



## Section 5 Potential Contamination Sources

It was noted that one of the transformers (numbered TSS01 in the Peak Downs Mine numbering system) had a visible stain below the chassis, shown in **Plate 30**. A sample of the surface soil was taken and sent to ALS Brisbane Laboratory for analysis of: 8 metals (Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, and Mercury); Total Petroleum Hydrocarbons (TPH); Benzene, Toluene, Ethyl benzene and Xylene (BTEX); Phenols; Polynuclear Aromatic Hydrocarbons (PAH); and Poly-Chlorinated Bi-Phenyls (PCB). The results of the analysis are shown in **Section 7.3**. Samples were not taken at the second transformer (numbered TSS04) as there was no visible evidence of surface staining.

### Toilet Facility for Mine Staff

A toilet facility with self contained septic tank and above-ground water supply is shown in **Plate 35**. The facility is located north of the back access road close to the 10N pit (shown on **Figure 3**). The toilet block is inspected fortnightly with the septic tank emptied by a licensed contractor on an as-needs basis. The toilet block was noted during the site inspection to be in an orderly and clean condition with no visible leaks.

### **Exploration Drill Pad Sumps**

During the site inspection, URS staff identified three shallow pits or sumps used for exploration drilling (see **Plate 36**). These pits were approximately 2 metres by 3 metres each. At the time of inspection the pits had not been backfilled and were filled with rain water. There was no visible sheen on the water and no other visible impacts in the area. It is standard BMA procedure to rehabilitate the area after drilling. The location of this site is shown on **Figure 3**.

#### **EMR Identified Site**

Lot 10 on SP137499 is identified on the EMR for the following Notifiable activities:

- Chemical Manufacture or Formulation;
- Chemical Storage;
- Explosives Production or Storage;
- Waste storage Treatment or Disposal;
- Petroleum product or Oil Storage; and
- Mine Wastes.

This Lot is part of the operational Peak Downs Mine (as can be seen in **Figure 2** and **Figure 3**). Upon visual inspection of land tenure maps it was noted that the boundaries of the project site contain a very small part (15.53 Ha) of the northern end of this lot, which is used for (among other things): storage and formulation of explosives used on the mine, the coal Rejects pile, and mechanical workshops for water pumps for the mine. When conducting the site visit, it was noted that the area affected by the study does not contain any of these activities and is located some distance from any infrastructure associated with these activities.

URS considers that no further action needs to be taken in this area.

#### Mobile Fuel Tanks

During the site inspection, URS staff noted two mobile fuel tanks on site, within the project site. **Figure 3** shows the location of these tanks.

A diesel tank was located on the northern side of 11North Pit near the back access road. This tank may have been used to supply diesel to water pumps in the pit. The tank was mounted on skids and had a capacity of 2500 litres (see **Plate 31**). The tank had a connected supply hose which led into the 11N pit.



## Section 5 Potential Contamination Sources

Peak Downs Mine staff were unable to determine the length of time that the tank had been in this location.

The tank was intact and in good condition. Fuel staining was visible on the filling point for the tank (**Plate** 32) and at the hose connection at the base. In addition, fuel staining was evident on the skids (**Plate 33**). There were no visible stains on the ground surface surrounding the tank, but soils had a strong petroleum odour. A surface soil sample and duplicate were collected next to the tank in the region of strong odours and sent to ALS Brisbane Laboratory for analysis of TPH, Phenols, PAH and BTEX. Results of these analyses are shown in **Section 7.3**.

A small trailer-mounted tank of approximately 250 litres, shown in **Plate 34**, was located near the junction of the North Haul Road and the 10N ramp. It was temporarily parked in an area which appeared already heavily impacted by coal rejects and truck wash down debris (shown on **Figure 3** and discussed below). Samples were not taken at this location. The tank appeared in a reasonable, clean condition and appeared to have been recently parked.

Lot 18 on GV135 is listed on the EMR for the notifiable activity of Petroleum product or Oil Storage. These fuel tanks are located within this land parcel and are likely to have triggered the notification.

### Parking Area / Waste Area

**Plate 37** shows an area used for light vehicle parking – as indicated by the presence of a Peak Downs approved sign. The area is at the junction of the main north haul road for the mine and the turn-off for the 10N ramp and was approximately 100m by 50m wide. The location of the area is shown on **Figure 3**.

This area appeared heavily impacted by coal rejects and fines, and wash-down dusts from trucks; and may have been mixed with materials used to construct the haul roads (which appeared to consist of gravels and bituminous fines). Peak Downs staff informed URS that the area is not an official parking area for coal haulers or reject trucks; or known as a dumping area for fines or rejects. **Plate 38** and **Plate 39** show coal fines in the area. In the parking zone, there was a trailer-mounted pump and a trailer-mounted fuel tank as mentioned above.

In addition to the parking area/waste area, it was noted by URS that there were a number of features (including bunds, haul road berms, and spoil piles) impacted in a similar manner to the area described above. Coal mining rejects and dust and coal spills appear to be a common feature around the mine transport corridors.

No samples were taken at this location, however the area appeared to be impacted by mining activities and the fuel tank appeared to be temporarily parked.

### 5.3 Possible Unidentified Contamination Sources

The site history review, discussions with local land holders and employees at the Peak Downs mine and the site inspection have identified a number of sources which may have potential for soil and groundwater contamination on the southern section of the project site. The normal operations of the mine have required that these sources of possible contamination have been used in a certain area for a number of months and moved as required. The history of these movements may not have been documented and it is therefore difficult to assess the potential impact, if any.

Mobile transformers are used to supply motive electrical power for all dragline movements and operations. These transformers can be moved between the stubline terminals, but are not stationary for set lengths of time. Possible contamination sources from these units are as follows:

- Possible leaks and spills of diesel fuel from fuel tanks and connections;
- Possible oil spills from diesel motors; and
- Possible leaks and spills of coolant oils from the windings cases.



### **Section 5**

### **Potential Contamination Sources**

Mobile or portable diesel fuel tanks are used around the mine during normal operations to supply fuel to light and heavy vehicle working in an area as the machinery may be far from fixed refuelling points. These tanks may not have detailed historical documentation on their uses and movements. A number of tanks may be in use at the same time within the project site and it is unknown where and when these tanks may have been filled and emptied. Potential sources of contamination from these tanks are as follows:

- Possible leaks and spills of diesel fuel when filling the mobile fuel tank in the field
- Possible leaks and spills from hoses and other vehicle filling points when filling from the diesel tanks.

Review of the analytical results suggests that both sites sampled contain spills of diesel fuel or engine oil. The high metals content of HA\_CRCL01\_0.0\_16/3/08 may be a condition of the soil matrix.

The sample taken below the transformer windings case had no detectable PCBs and is therefore unlikely to be transformer coolant oil. The stains on the windings case on both transformers visited suggest the potential for contamination in other locations.

In general, waste rock from the mining activities in the pit is relocated to the low wall and associated spoil piles near to the pit. Rejects from the Run Of Mine (ROM) treatment plant are sent to a rejects pile and wash plant tailings are sent to a tailings dam for reclamation of water. At Peak Downs mine both the rejects pile and the tailings dams are located close to the washing plant, some 6 km from the Caval Ridge project site. These activities are unlikely to have any potential impact on the area.

The haul roads and other transport corridors in the mine have the potential for contamination. Within the project site boundary there are a number of locations close to the mine roads where waste rock and coal (possibly ROM coal) has been spilled or may have been deliberately off-loaded in off-road parking areas (an example of this was examined in the site inspection described above). It should be noted that these areas are not considered contaminated in the context of this report as there are no real impacts to the soils or groundwater from the coarse coal or coal fines. However there is potential for these areas to conceal possible petroleum product impacts, and remediation activities may need to consider these areas and the rehabilitation of the haul roads as part of the rehabilitation strategy.



## **Section 6**

## **Proposed Development and Site Management**

**Figure 4** shows the proposed mine development program for Caval Ridge overlaid with the locations of the areas of potential contamination. Many areas noted in this report will not be directly affected by pit excavation during the life of the mine. These areas may be affected by access requirement later and so will still require appropriate and timely treatment. The following areas of potential contamination will require a detailed management plan due to the findings of the investigation and their location within the proposed development.

- The Cattle Yards on Lot 13 on SP151669 will require a further detailed examination and investigation. The yards would need to be removed as the box cut spoil pile is planned for the site. The investigation will need to include delineation of any contamination present to the depth of the water table; sampling, quantification and treatment of the soil removed from the yards after the original order (this soil has been removed to "temporary storage" elsewhere on the lease and will need to be recovered, along with the soils under the stockpile); and validation of clean soils around the cattle area once any contaminated material has been removed.
- Any soils affected by spilling at the Diesel tank (skid mounts) and at the transformer locations (both current and historical) will need to be removed and stockpiled separately for remediation, this soil may not be reused as topsoil. These areas will be affected as the pit excavation advances to the north-west over the mine life.
- The development of Heyford Pit will require the removal of potentially contaminated soils from five sites over the life of the mine. These include areas that previously had diesel tank skid mounts, transformers, toilets and septic tanks, and drilling pad sumps.
- The development of Horse Pit will require the removal of potentially contaminated soils from a former gravel pit site, located on the northern section of the development.
- The development of Horse Creek Diversion, will require the removal of potentially contaminated soils from the site currently occupied by the Kalari Workshop and Yard.

Further recommendations are detailed below. The Draft Environmental Management Plan given in the Caval Ridge Environmental Impact Statement (URS, 2008) gives detailed information on the treatment of the noted areas.



## 7.1 Sampling Methodology

Groundwater sampling has not identified any contamination (refer to the Caval Ridge Groundwater Report, URS 2008).

The northern area site inspection identified a number of locations of possible impact to soils as a result of potentially contaminating past and current activities. At this stage soil sampling to confirm the contamination source (if any) and the extent of contamination (if any) was not undertaken.

Prior to any soil disturbance, further investigations of each of the areas of potential contamination will need a comprehensive sampling program to identify the impacts to soils and groundwater, if any.

During the southern area site inspection two locations were noted as having a possible impact to soils – a spill noted under a transformer and a strong odour in soils next to a mobile diesel tank.

Sample number HA\_CRCL01\_0.0\_16/03/08 was taken from the soil under transformer TSS01. Soil was scraped from the surface using a garden cultivator and nitrile glove and packed without headspace into a glass jar. The jar was then placed into a chilled esky. Sample number HA\_CRCL02\_0.0\_16/03/08 was taken from the soil near the skid-mounted diesel fuel tank at 11North pit. Soil was collected using a nitrile glove and placed without headspace in a glass jar. The jar was put into an ice-brick chilled esky for transport to the ALS Brisbane laboratory. Sample HA\_CRQC01\_0.0\_16/03/08 is a duplicate of HA\_CRCL02\_0.0\_16/03/08.

All samples of the soil (including a field rinsate and trip blank) were sent for ALS Brisbane laboratory analysis. The range of analyses included the following:

- Total Petroleum Hydrocarbons (TPH);
- Benzene, Toluene, Ethyl benzene and Xylene (BTEX);
- Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc);
- Phenols; and
- Polynuclear Aromatic Hydrocarbons (PAH).

In addition Sample HA\_CRCL01\_0.0\_16/03/08 was analysed for Total Poly-Chlorinated Biphenyls (PCB).

## 7.2 Applicable Investigation Levels

### 7.2.1 Soil Investigation Levels

The investigation levels adopted for comparison of the soil analytical results for this Preliminary Site Investigation are discussed below. The adopted investigation levels (ILs) are summarised in **Table 7-1**.

- The **Environmental Investigation Levels** (EILs), developed by the Queensland Environmental Protection Agency (QEPA) and published in the "*Draft Guidelines for the Assessment & Management of Contaminated Land in Queensland*". It is noted that the QEPA has adopted the same values for the HILs commercial/industrial exposure settings as the NEPM HILs for commercial/industrial land use, for the analytes in **Table 7-1**.
- The Health-based Investigation Levels (HILs) for Commercial/Industrial 'F' exposure settings, developed by the National Environment Protection Council (NEPC), as documented in the "National Environment Protection (Assessment of Site Contamination) Measure" (the NEPM), published in December 1999.



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There are no published investigation levels for non-speciated TPH fractions, although the EPA has developed guideline investigation levels for TPH which are used for assessing service station sites...



Table 7-1	Applicable So	oil Investigation Levels	
Analyte	Units	QLD-EPA Environmental Investigation Levels	NEPM – HBILs 'F'
Total Petroleum Hydrocarbons	I		
C <sub>6</sub> -C <sub>9</sub> fraction	mg/kg	100*	ne
C <sub>10</sub> -C <sub>14</sub> fraction	mg/kg	100*	ne
C <sub>15</sub> -C <sub>28</sub> fraction	mg/kg	1,000*	ne
C <sub>29</sub> -C <sub>36</sub> fraction	mg/kg	1,000*	ne
C <sub>6</sub> -C <sub>36</sub> fraction	mg/kg	2,200*	ne
BTEX Compounds			
Benzene	mg/kg	1	ne
Ethyl benzene	mg/kg	ne	ne
m&p-Xylene	mg/kg	ne	ne
o-Xylene	mg/kg	ne	ne
Toluene	mg/kg	ne	ne
Metals (Total)			
Arsenic	mg/kg	20	500
Cadmium	mg/kg	3	100
Chromium	mg/kg	50	500
Copper	mg/kg	60	5,000
Lead	mg/kg	300	1500
Mercury	mg/kg	1	75
Nickel	mg/kg	60	3,000
Zinc	mg/kg	200	35,000
Polynuclear Aromatic Hydrocarbons			
Benzo(a)pyrene	mg/kg	ne	5
PAH (Total)	mg/kg	ne	100
Phenolic Compounds			

Polychlorinated biphenyls mg/kg 1

\* Note: TPH EIL's are guidelines for the assessment of service stations and are only used here as an indication of relative concentration

mg/kg

ne

 $Ne-not\ established$ 

**Polychlorinated Biphenyls** 

Phenol



42,500

ne

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### 7.3 Analytical Results

Analytical results for the three samples sent to ALS Brisbane for analysis are shown in the Soil Analytical Results table. Further details can be found in the ALS Brisbane Laboratory reports in **Appendix C**.

### 7.3.1 Total Petroleum Hydrocarbons

Two primary samples were analysed for TPH as part of this investigation. Each sample contained concentrations above laboratory limits of reporting in the following fractions:

- HA\_CRCL01\_0.0\_16/3/08 ( $C_{10}$ - $C_{14}$  350 mg/kg;  $C_{15}$ - $C_{28}$  38,900 mg/kg;  $C_{29}$ - $C_{36}$  810 mg/kg); and
- HA\_CRCL02\_0.0\_16/3/08 (C<sub>10</sub>-C<sub>14</sub> 4,390 mg/kg; C<sub>15</sub>-C<sub>28</sub> 30,100 mg/kg; C<sub>29</sub>-C<sub>36</sub> 170 mg/kg).

The concentrations reported in these fractions exceed the adopted ElLs.

#### 7.3.2 BTEX

Two primary samples were analysed for Benzene, Toluene, Ethyl benzene and Xylene (BTEX) as part of this investigation. BTEX compounds were not detected above laboratory limits of reporting in the samples analysed.

### 7.3.3 Heavy Metals

Two primary samples were analysed for selected heavy metals for this investigation. Analysis showed quantities of Chromium, Copper, Lead, Nickel and Zinc above the laboratory level of reporting in all samples. Arsenic, Cadmium and Mercury were below the level of reporting for all samples. Concentrations exceeding the adopted ElLs were recorded for chromium (54 mg/kg) and nickel (88 mg/kg) in sample HA\_CRCL01\_0.0\_16/3/08.

#### 7.3.4 PhenoIs

Two primary samples were analysed for Phenols as part of this investigation. No Phenols were detected above laboratory limits of reporting in the samples analysed.

### 7.3.5 Polynuclear Aromatic Hydrocarbons

Two primary samples were analysed for PAHs as part of this investigation. One sample had concentrations of Phenanthrene above the Laboratory level of reporting.

HA\_CRCL01\_0.0\_16/3/08 recorded concentrations of Phenanthrene of 3.8 mg/kg.

In addition, the QA/QC duplicate sample HA\_CRQC01\_16/3/08 recorded concentrations of Phenanthrene of 4.0 mg/kg. The Primary sample for this Duplicate did not show levels above the limit of reporting.

#### 7.3.6 PCBs

Sample HA\_CRCL01\_0.0\_16/3/08 was analysed for Total PCBs as it was collected under the transformer windings case. PCBs were not detected in the sample above the laboratory level of reporting.



## Section 8

## **Analytical Data Validation**

### 8.1.1 Methodology

Analytical data validation is a process carried out to assess the quality of the data reported, and to identify if the data can be used to fulfil the overall project objectives.

The data validation guidelines adopted are based on data validation guidance documents published by the United States Environmental Protection Agency (US EPA) February 1994. The process involves the checking of analytical procedure compliance and an assessment of the accuracy and precision of analytical data from a range of quality control measurements generated from both the field sampling and analytical programs.

Specific elements that have been checked and assessed for this project include:

- Preservation and storage of samples upon collection and during transport to the ALS Brisbane Laboratory. It should be noted that the International Air Transportation Association (IATA) regulations do not allow sample containers freighted by air to be pre-dosed with acid or caustic preservatives.
- Sample holding times.
- Use of appropriate analytical and field sampling procedures.
- Required limits of reporting.
- Frequency of conducting quality control measurements.
- Laboratory blank results.
- Field duplicate results.
- Laboratory duplicate results.
- Surrogates spike results.
- The occurrence of apparently unusual or anomalous results, e.g., laboratory results that appear to be inconsistent with field observations or measurements.

Samples selected for analysis were received by ALS Brisbane laboratory within the required holding times.

### 8.1.2 Analytical Data Quality – Field Data Quality

On the basis of the analytical data validation procedure employed, the overall quality of the analytical data produced is considered to be of an acceptable standard for interpretive use.

The breaches in analysis holding times for moisture content for selected soil samples is not considered to affect the interpretative quality of the reported results.

Field duplicates were collected and analysed at the required frequency of one duplicate per twenty primary samples. No rinsate blank samples were collected. No field blank, field spike or trip spike samples were collected and/or analysed as part of this investigation.



## Section 8 Analytical Data Validation

No exceedances of soil sample acceptance criteria 30% of Relative Percentage Difference (RPD) occurred.

Data validation summary tables and RPD reports are provided in **Appendix D**.

### 8.1.3 Laboratory Quality Control

On the basis of the analytical data validation procedure employed, the overall quality of the analytical data produced is considered to be of an acceptable standard for interpretive use. The following points summarise the findings of the data quality review undertaken:

#### Required Limits of Reporting

Limits of reporting for the various analyses undertaken were found to be within the appropriate limits, with the exception of samples HA\_CRCL02\_0.0\_10/3/08 and HA\_CRQC01\_16/3/08 required dilution prior to analysis for PAH/Phenols due to matrix interferences.

#### • Laboratory Blank Results

All laboratory blanks returned results that were below the relevant laboratory limits of reporting for the analytes tested.

#### • Laboratory Control Samples

All laboratory control samples were within the appropriate control limits.

#### Laboratory Duplicate RPDs

All laboratory duplicate RPDs were within the appropriate LOR based limits.

#### Matrix Spike/Matrix Spike Duplicate (MS/MSD) RPDs

All laboratory matrix spike/matrix spike duplicates were within the acceptable level of recovery.

#### • Surrogates Spike Results

All surrogate recoveries were generally within the appropriate guideline limits, however several surrogate recoveries had a high bias, which has been interpreted by the laboratory as being a result of matrix interference.

On the basis of the analytical data validation procedure employed, the overall quality of the analytical data produced is considered to be of an acceptable standard for interpretive use.



## Section 9 Conclusions

Following the completion of the desktop review of available documents, including historic and current titles, EPA registries, and aerial photographs; a general and targeted site inspection was carried out over the project site as well as interviews with local leaseholders and Peak Downs Mine employees.

#### Northern Section

The northern section of the project site is located within a currently inactive portion of mining tenement. Following a desktop review, it was identified that the majority of the project site has been vacant grasslands used for cattle grazing with a low potential for contamination. Two inhabited properties were identified within this section of the project site.

Potential sources of contamination may exist, however further investigations are required to confirm the presence, type and extent of any impact. As a result of the potential occurrence of contaminated soil within the project site, it is recommended that further investigations be carried out prior to undertaking earth moving activities in the area. The following areas may require further investigation due to current and past activities:

- Kalari Trucking workshop and yard,
- Cattle yards and local farm shed,
- Possible sawmill location;
- Rifle Range location;
- Homestead and cottage;
- EMR identified site;
- The gravel pit; and
- Any additional sites not identified during this investigation.

It should be noted that this northern section of the project site is situated on a mining lease and the activities listed above are on the whole consistent with those that would be expected to be found on such a lease. It is also expected that these identified areas of potential concern will be able to be managed at the opportune time as the mine develops and excavation of many of these locations occurs.

URS recommends that BMA perform a further investigation to delineate and validate the cattle yard area before any soil is removed. Additionally, URS recommends that BMA locate and assess (and remove to an appropriate disposal facility if required) those soils originally stripped from the yards that have been "temporarily stored" elsewhere.

#### Southern Section

This southern section of the project site is located within an area of currently active mining. Following a desktop review it was identified that the majority of the project site until the 1980s had been vacant grasslands used for cattle grazing with a low potential for contamination.

The development of the Heyford pit and associated infrastructure in the Peak Downs Mine (including 10, 11, and 12 North pits) did however introduced a number of activities within this southern section with the potential for contamination. In particular, the use of mobile plant over the site, with the potential for unreported fuel spills and leaks, increase the likelihood of potential contamination issues in the area. The following potentially contaminated areas may require further investigation:

- Dragline transformer past and current locations,
- Mobile fuel tanks, past and current locations,
- Un-rehabilitated exploration drill pads; and



## Section 9 Conclusions

Official and unofficial parking areas, waste off-load areas.

It should be noted that as this southern section of the project site is situated on an active mining lease it is expected that these identified areas of potential concern will be able to be managed at the opportune time as the mine develops and excavation of many of these locations occurs. The characterisation of the vertical and lateral extent of contamination at these areas of potential concern should be determined with consideration of the intended land use for the duration of the project (e.g. continuing hydrocarbon storage, being emplaced into a pit or overburden stockpile) and intended land use at end of mine life. Where contamination is identified prior to, or following, disturbance under the proposed mine plan, on-site remedial works should be conducted as required based on the intended final use of the material.

The conclusion and all information in this Report is given strictly in accordance with and subject to the following limitations and recommendations:

- a) The Phase One Environmental Site Assessment undertaken to form this conclusion is limited to the scope of work agreed between URS and BHP Billiton Mitsubishi Alliance as outlined in section 1.3 ("Scope of Works") of this Report.
- b) This Report has been prepared for the sole benefit of BHP Billiton Mitsubishi Alliance and neither the whole nor any part of this Report may be used or relied upon by any party other than BHP Billiton Mitsubishi Alliance].
- c) The investigations carried out for the purposes of the Report have been undertaken, and the Report has been prepared, in accordance with normal prudent practice and by reference to applicable environmental regulatory authority and industry standards, guidelines and assessment criteria in existence at the date of this Report.
- d) This Report should be read in full and no excerpts are to be taken as representative of the findings. No responsibility is accepted by URS for use of any part of this Report in any other context.
- e) This Report was prepared between April and October 2008 and is based on the conditions encountered on the site and information reviewed during the time of preparation. URS accepts no responsibility for any changes in site conditions or in the information reviewed that have occurred after this period of time.
- f) Where this Report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in the Report.
- g) Given the limited Scope of Works, URS has only assessed the potential for contamination resulting from past and current known uses of the site.
- h) Inspections undertaken in respect of this Report are limited to visual inspections only and are constrained by the particular site conditions, such as the location of buildings, services and vegetation.
- i) Except as otherwise specifically stated in this Report, URS makes no warranty or representation as to the presence or otherwise of asbestos and/or asbestos containing materials ("ACM") on the site. If fill has been imported on to the site at any time, or if any buildings constructed prior to 1970 have been demolished on the site or materials from such buildings disposed of on the site, the site may contain asbestos or ACM.
- j) No investigations have been undertaken into any off-site conditions, or whether any adjoining sites may have been impacted by contamination or other conditions originating from this site.
- k) The conclusion set out above is based solely on the information and findings contained in this Report.
- Except as specifically stated above, URS makes no warranty, statement or representation of any kind concerning the suitability of the site for any purpose or the permissibility of any use, development or re-development of the site.
- m) Use, development or re-development of the site for any purpose may require planning and other approvals and, in some cases, environmental regulatory authority and accredited site auditor approvals. URS offers no opinion as to whether the current use has any or all approvals required, is operating in accordance with any approvals, the likelihood of obtaining any approvals, or the conditions and obligations which such approvals may impose, which may include the requirement for additional environmental works.



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## Section 9 Conclusions

- n) URS makes no determination or recommendation regarding a decision to provide or not to provide financing with respect to the site.
- o) The ongoing use of the site and/or use of the site for any different purpose may require the owner/user to manage and/or remediate site conditions, such as contamination and other conditions, including but not limited to conditions referred to in this Report.



## Section 10 References

ARCHAEO (2008): Non Indigenous Cultural Heritage Survey of Caval Ridge, Central Queensland

EPA (1998) Draft Guidelines for the Assessment and Management of Contaminated Land in Queensland (1998),

GSS Environmental (October 2008): Caval Ridge Project – Soil Survey and assessment report.

Geological Survey of Queensland 1:250,000 Series, Clermont Sheet

Kalari Site Supervisor (2007). Personal Communication – Interview 15 December 2007 and 14 January 2008

Leaseholder (2007). Personal Communication – Interview 10 December

Local Resident (2007). Personal Communication – Interview 12 December

NEPM National Environment Protection (Contaminated Land) Measure 1999

Peak Downs Mine Personnel (2007). Personal Communication – December

Queensland Environmental Protection Act 1994

URS (2008) Caval Ridge Groundwater Impact Assessment Report



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Tables Soil Analytical Results



## Soil Analytical Results Caval Ridge, April 2008

Location
Sample ID
Date Sampled
Sample Type
Primary Sample ID
Laboratory
Batch No.
PID Readings (ppm)

-	-	-		
HA_CRCL01_	HA_CRCL02_	HA_CRQC01_		
0.0_16/3/08	0.0_16/3/08	16/3/08		
16/03/2008	16/03/2008	16/03/2008		
Primary	Primary	Duplicate		
Sample	Sample	Sample		
HA_CRCL01_	HA_CRCL02_	HA_CRCL02_		
0.0_16/3/08	0.0_16/3/08	0.0_16/3/08		
-	-	-		
EB0803692_M	EB0803692_M	EB0803692_M		
RED	RED	RED		
-999.99	-999.99	-999.99		

Analyte	LOR	Units	QEPA - EILs	NEPM - HBILs 'F'			
Moisture Content	LOK	Units		HDILS F			
Moisture Content	1	%	ne	ne	9	8.9	12.3
Total Petroleum Hydrocarbons							
C10-C14 fraction	50	mg/kg	100	ne	350	4390	3730
C15-C28 fraction	100	mg/kg	1000	ne	38900	30100	29600
C29-C36 fraction	100	mg/kg	1000	ne	810	170	170
C6-C9 fraction	2	mg/kg	100	ne	<10	<10	<10
BTEX Compounds							
Benzene	0.2	mg/kg	1	ne	<0.2	<0.2	<0.2
Ethylbenzene	0.2	mg/kg	ne	ne	<0.5	<0.5	<0.5
m&p-Xylene	0.2	mg/kg	ne	ne	<0.5	<0.5	<0.5
o-Xylene	0.2	mg/kg	ne	ne	<0.5	<0.5	<0.5
Toluene	0.2	mg/kg	ne	ne	<0.5	<0.5	<0.5
Metals (Total)		•					
Arsenic	1	mg/kg	20	500	<5	<5	<5
Cadmium	1	mg/kg	3	100	<1	<1	<1
Chromium	1	mg/kg	50	500	54	10	12
Copper	1	mg/kg	60	5000	25	5	6
Lead	1	mg/kg	300	1500	<5	8	8
Mercury	0.1	mg/kg	1	75	<0.1	<0.1	<0.1
Nickel	1	mg/kg	60	3000	88	5	5
Zinc	1	mg/kg	200	35000	39	6	7

### Soil Analytical Results Caval Ridge, April 2008

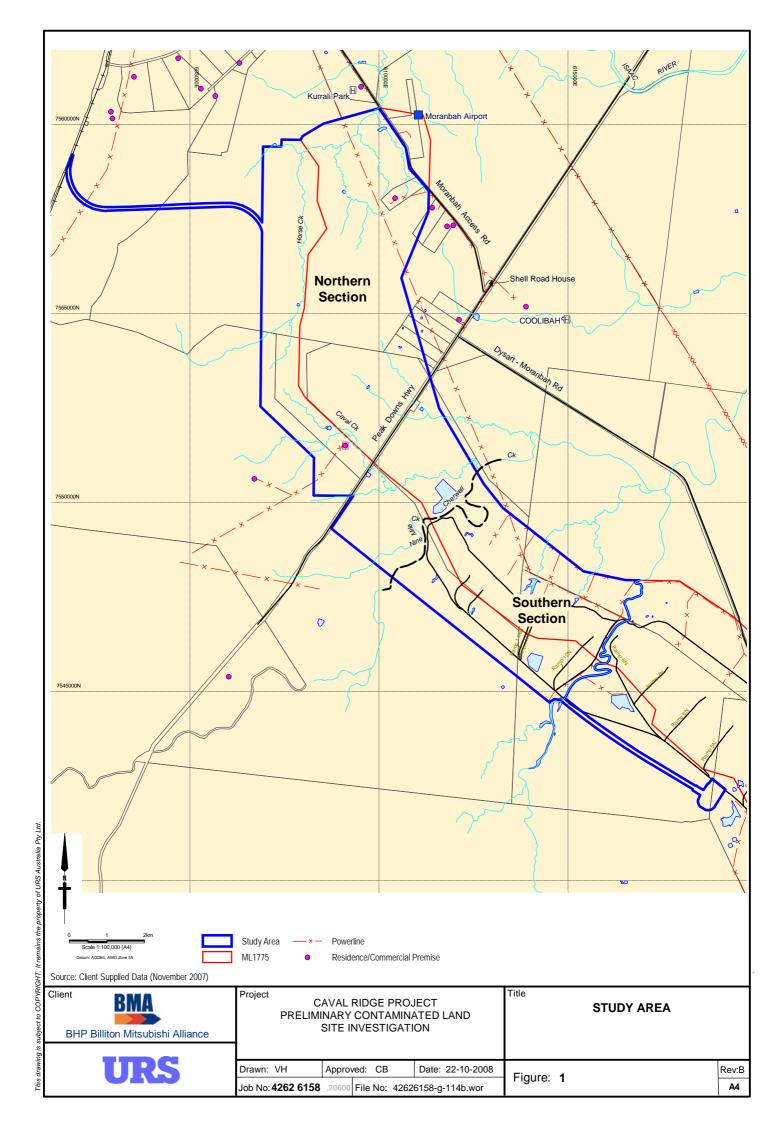
Polynuclear Aromatic Hydrocarbons				Ī			
Acenaphthene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Acenaphthylene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Anthracene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Benzo(a)anthracene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Benzo(a)pyrene	0.5	mg/kg	1	5	<0.5	<2.3	<1.9
Benzo(b)fluoranthene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Benzo(g,h,i)perylene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Benzo(k)fluoranthene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Chrysene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Dibenz(a,h)anthracene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Fluoranthene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Fluorene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Naphthalene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Phenanthrene	0.5	mg/kg	ne	ne	3.8	<2.3	4
Pyrene	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Phenolic Compounds							
2,4,5-Trichlorophenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2,4,6-Trichlorophenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2,4-Dichlorophenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2,4-Dimethylphenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2,6-Dichlorophenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2-Chlorophenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2-Methylphenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
2-Nitrophenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
3- & 4-Methylphenol	0.5	mg/kg	ne	ne	<1	<4.6	<3.9
4-Chloro-3-Methylphenol	0.5	mg/kg	ne	ne	<0.5	<2.3	<1.9
Pentachlorophenol	0.5	mg/kg	ne	ne	<2	<4.6	<3.9
Phenol	0.5	mg/kg	ne	42500	<0.5	<2.3	<1.9
Polychlorinated Biphenyls							
Polychlorinated biphenyls	0.1	mg/kg	ne	ne	<4.96	-	-

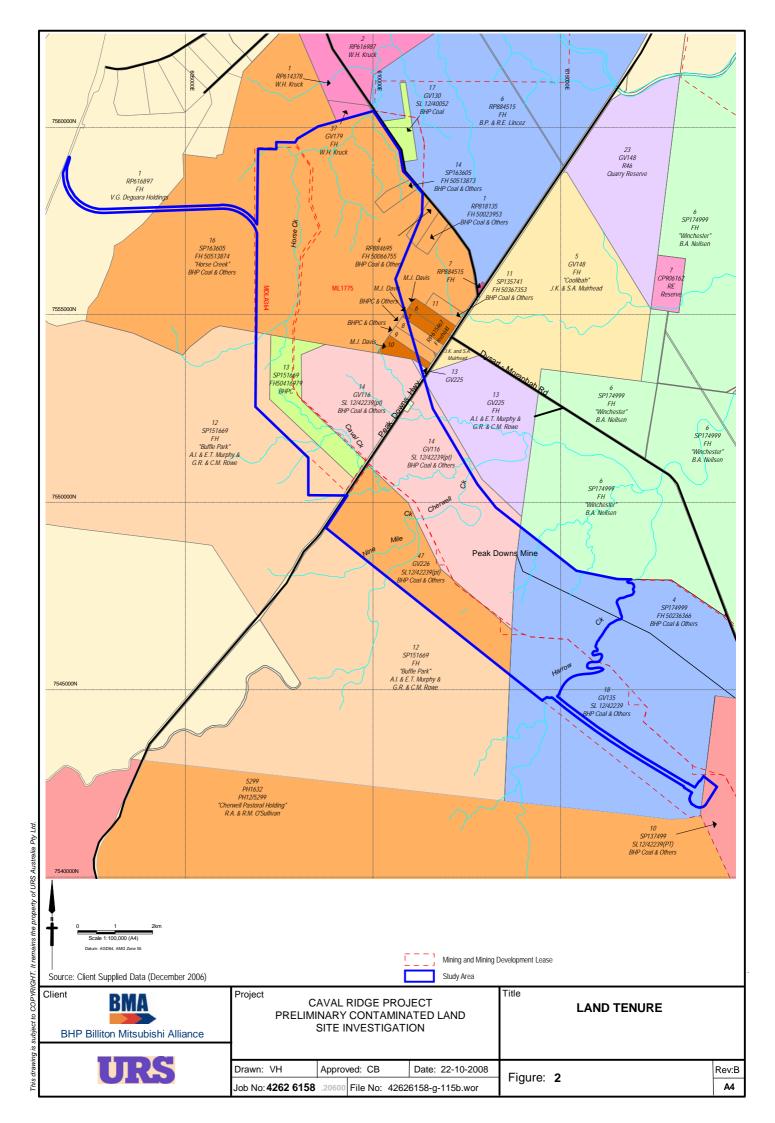
Exceeds the Queensland Environmental Protection Agency 1998 Environmental Investigation Levels

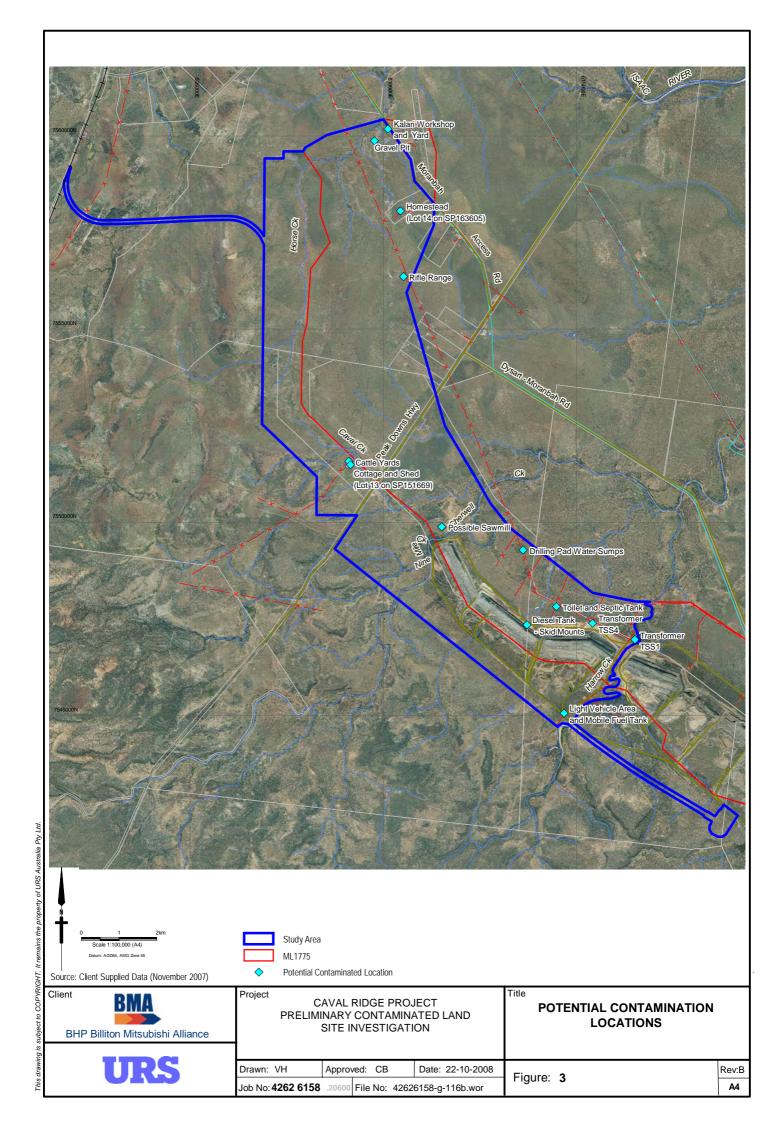
Exceeds the National Environment Protection Council 1999 Health-based Investigation Levels - Commercial/Industrial

	CAVAL RIDGE, CONTAMINATED LAND PRELIMINARY SITE INVESTIGATION
Figures	









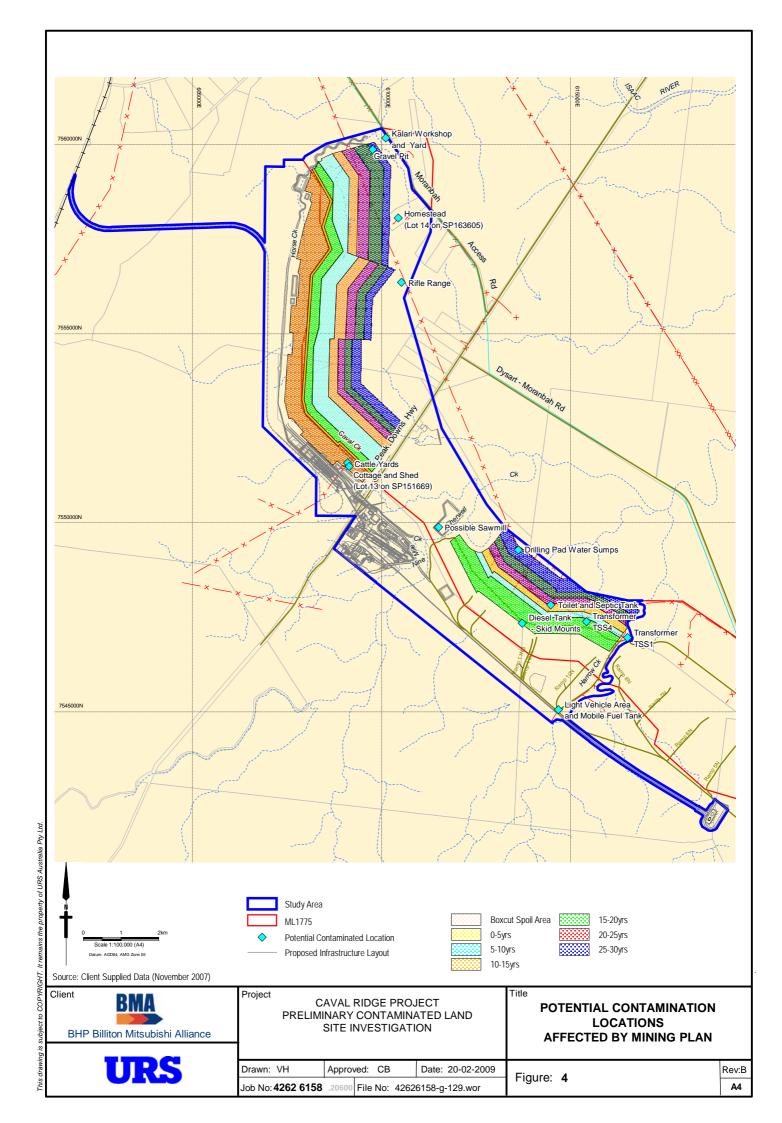




Plate 1 Truck washing pad - Kalari Yard





Plate 2 Wash down sediment trap - Kalari Yard



Plate 3 Maintenance Pit - Kalari Yard



Plate 4 In-ground Waste Oily Water/sediment tank - Kalari Yard





Plate 5 Paints and storage room - Kalari Yard Cattle yard and shed - Lot 13 on SP 151669



Plate 6 Rinsed Chemical Containers - Kalari Yard





Plate 7 Empty Chemical Containers - Kalari Yard



Plate 8 Empty Chemical containers and Equipment - Kalari Yard





Plate 9 Empty Fuel Containers - Kalari Yard



Plate 10 Waste Oily Rags and filters - Kalari Yard





Plate 11 Waste Skips - Kalari Yard



Plate 12 Oils storage and Lubrication room – Kalari Yard





Plate 13 Permanent shipping containers – Kalari Yard



Plate 14 Potential Detergent spill, Wash down area - Kalari Yard





Plate 15 Lubrication Room - Kalari Yard



Plate 16 Workbench and lubrication filling - Kalari Yard





Plate 17 Parts washer - Kalari Yard



Plate 18 Soil stockpile at gate – Kalari Yard





Plate 19 View of Cattle Yards, looking north-west



Plate 20 View from within the Cattle Yards, looking north





Plate 21 Off-cuts at sawmill location



Plate 22 BBQ Pit at the Rifle Range





Plate 23 Targets at the Rifle Range



Plate 24 Chemicals used in Farmers shed at Cattle Yards





Plate 25 Fuels used at Farmers shed at Cattle Yards



Plate 26 Gravel pit looking south





Plate 27 Mobile Dragline Transformer - Peak Downs Mine



Plate 28 Oily Staining on Spigot on Transformer – Peak Downs Mine





Plate 29 Oily Staining on Windings case on Transformer – Peak Downs Mine



Plate 30 Oily stain under Transformer TSS01 – Peak Downs Mine





Plate 31 Diesel Fuel tank at 11North Pit –Peak Downs Mine



Plate 32 Staining on tank fill point – Peak Downs Mine





Plate 33 Staining on tank skids – Peak Downs Mine



Plate 34 Mobile fuel tank and pump – Peak Downs Mine



# **Plates**



Plate 35 Toilet facility - Peak Downs Mine



Plate 36 Drill water sumps - Peak Downs Mine



# **Plates**



Plate 37 Waste area/Parking area – Peak Downs Mine



Plate 38 Coal fines and rainwater at parking area - Peak Downs Mine



# **Plates**



Plate 39 Coal fines and gravel at parking area - Peak Downs Mine

CAVAL RIDGE, CONTAMINATED LAND PRELIMINARY SITE INVESTIGATION

Appendix A

**Current and Historic Certificates of Title** 



### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203735

Search Date: 15/10/2007 15:34 Title Reference: 30485135

Date Created: 22/09/1981

Previous Title: 30478104 30478105

REGISTERED OWNER

Dealing No: 710565779 09/05/2007

ELAINE JANET KRUCK PERSONAL REPRESENTATIVE

UNDER INSTRUMENT NO.710565779.

ESTATE AND LAND

Estate in Fee Simple

LOT 1 REGISTERED PLAN 614378

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

EASEMENTS, ENCUMBRANCES AND INTERESTS

 Rights and interests reserved to the Crown by Deed of Grant No. 30478104 (POR 20)
 Deed of Grant No. 30478105 (POR 20)

2. EASEMENT IN GROSS No 601732521 (C416948) 21/05/1981 BURDENING THE LAND TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD OVER EASEMENTS A AND B ON RP14090

3. CAVEAT No 710747398 25/06/2007 at 15:40
EXXARO AUSTRALIA PTY LTD A.C.N. 063 427 369 1/2
ANGLO COAL (GROSVENOR) PTY LTD A.C.N. 081 022 344 1/2

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2245366

Previous Title: 30478104 30478105

#### REGISTERED OWNER

Dealing No: 710565779 09/05/2007

ELAINE JANET KRUCK PERSONAL REPRESENTATIVE

UNDER INSTRUMENT NO.710565779.

TRANSMISSION BY DEATH No 710565779 ELAINE JANET KRUCK PERSONAL REPRESENTATIVE UNDER INSTRUMENT NO.710565779. Produced at 10:53 on 09/05/2007

#### ESTATE AND LAND

Estate in Fee Simple

LOT 1 REGISTERED PLAN 614378

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. RELEASE NO 711067505 SEC 147A NOTATION: 601083730 (147A Produced at 11:37 on 08/10/2007

2. CAVEAT NO 710747398
 EXXARO AUSTRALIA PTY LTD A.C.N. 063 427 369 1/2
 ANGLO COAL (GROSVENOR) PTY LTD A.C.N. 081 022 344 1/2
 Produced at 15:40 on 25/06/2007

3. RELEASE No 710719006 MORTGAGE: 703904387 Produced at 11:48 on 20/06/2007

- 4. MORTGAGE No 703904387 CANCELLED BY 710719006 COMMONWEALTH BANK OF AUSTRALIA A.C.N. 123 123 124 Produced at 08:56 on 01/03/2000
- 5. RELEASE No 703904367 MORTGAGE: 601335448 (C681757C) Produced at 08:53 on 01/03/2000
- 6. MORTGAGE No 601335448 (C681757C) CANCELLED BY 703904367 TO QUEENSLAND INDUSTRY DEVELOPMENT CORPORATION Produced at 00:00 on 13/08/1993

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2245366

Search Date: 18/10/2007 18:51 Title Reference: 30485135

Date Created: 22/09/1981

### EASEMENTS, ENCUMBRANCES AND INTERESTS

7. SEC 147A NOTATION No 601083730 (147A) CANCELLED BY 711067505 THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962-1978 APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND Produced at 00:00 on 31/12/1984

8. EASEMENT IN GROSS No 601732521 (C416948)
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENTS A AND B ON RP14090
Produced at 00:00 on 21/05/1981

9. Rights and interests reserved to the Crown by Deed of Grant No. 30478104 (POR 20) Deed of Grant No. 30478105 (POR 20)

### ADMINISTRATIVE ADVICES - NIL

### UNREGISTERED DEALINGS

DealingTypeLodgementDateStatus711094604TRANSFER16/10/200716:07UNVERIFIED

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2245370

Search Date: 18/10/2007 18:57 Title Reference: 30478104

This Title Has Been Fully Cancelled.

Refer to Image for Additional Information

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

\*\* End of Historical Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2245376

Search Date: 18/10/2007 18:59 Title Reference: 30478105

This Title Has Been Fully Cancelled.

Refer to Image for Additional Information

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

\*\* End of Historical Title Search \*\*

30485135 V1 See ATS for Status Page 1 of 2

**(C)** 

Dealing No. C417644

Reference to previous

Folio Volume C478

104

C478 105



CERTIFICATE OF TITLE

VOL:C 485 FOLIO:135

C 485<sub>FOLIO</sub> 135

### ARTHUR DAVID MUIRHEAD

and

ADRIENNE KATHLEEN MUIRHEAD

his wife

as tenants in common in equal shares

arenow seised

of an Estate in Fee-simple, subject nevertheless to such encumbrances, liens, and interests as are by memorandum notified hereon, in All that piece of Land situated in the County Parish of Moranbah -City-of-Grosvenor

Containing 201.4 hectares

more or less, as shown on the Plan hereon, and therein edged red, Being Lot 1 on registered Plan No. 14378

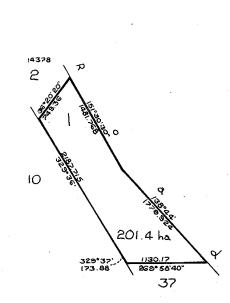
SAVING ALWAYS to the Crown all the rights and interests reserved to it by the original Deed of Grant -Ne- . Volume C478 Folios 104 and 105 (Por. 20)

WITNESS whereof, I have hereunto signed my name and affixed my seal, T N day of September One thousand nine hundred and eighty-one 22 Nd this

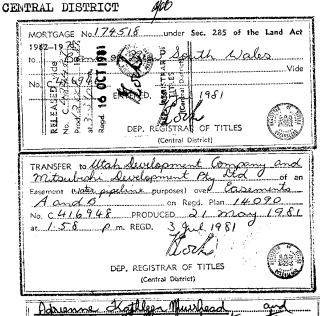
Signed, Sealed, and Delivered) in presence of A. Wellman

DEPUTY REGISTRAR OF TITLES.

Scale 1: 40000



Attention is directed to the provisions of Section 147A of the Land Act 1962-1978 relating to transfer



olen Kennell Murhead artenanto now registered proprietors in fee simple. TRANSMISSION BY DEATH NO. 2467391 nousistered + 23 FEB 1984 J. I. Back ford No complex DEPUTY REGISTRAR OF TITLES (CENTRAL DISTRICT)

William Henry Kruch and
Claime Genet Kouch
as lant tonant
and now registered proprietors in fee simple.
-(
THARSTER NO
PRODUCED
REGISTERED 27 OCT 1988 Allidged
ACTING DEPUTY REGISTRAR OF TITLES
ACTIONS DEPOT REGISTRAN OF THESE
New Contractions
BILL OF MORTGAGE to 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Queencland Industry Days Coments Corporation
1560535K-Charles 1 100t 1988
No.
RECORDED RECORDED
\$ 24 OCT 1888
DEPOTY REGISTRAR OF TITLES (CENTRAL DISTRICT)
DESCRIPTION OF THE SECOND
I (CENTRAL DISTRICT) II
(CENTRAL DISTRICT)
balliam Henry Kruck
Mulliam Akry Krucki  ja now registered proprietor in fee simple.
Mulliam Akry Krucki  ja now registered proprietor in fee simple.
TRANSFER No. CO4/353B.  PRODUCED 14 April 1992
Addition Akry Kruck.  An ow registered proprietors in fee simple.  TRANSFER NO. CO4/3538.  PRODUCED 14 April 1992.  RECORDED
Addition Akny Krucki.  in pow registered proprietors in fee simple.  TRANSFER NO. CO4/353B.  PRODUCED 14 April 1992  RECORDED  Authorit 18 MAY 1992 J. Alberton
Addition Akry Kruck.  An ow registered proprietors in fee simple.  TRANSFER NO. CO4/3538.  PRODUCED 14 April 1992  RECORDED  Authorit 18 MAY 1992 Additional DEPUTY REGISTRAR OF TILES
Addiam Akny Kruck.  Inow registered proprietors in fee simple.  TRANSFER NO.  PRODUCED  RECORDED  AUGUST to Easement  No. C416948 and  DEPUTY REGISTRAR OF TILES
Addition Akry Kruck.  An ow registered proprietors in fee simple.  TRANSFER NO. CO4/3538.  PRODUCED 14 April 1992  RECORDED  Authorit 18 MAY 1992 Additional DEPUTY REGISTRAR OF TILES
And Liam Akny Kruck.  Inow registered proprietory in fee simple.  TRANSFER NO. COH 353B  PRODUCED IH AN 1992  RECORDED  August to Euserunt 18 MAY 1992 of Aldred  No. CH16948 and DEPUTY REGISTRAR OF TILES  Montagy No. C560535K (CENTRAL DISTRICT)
Addiam Skry Kruck.  Inow registered proprietors in fee simple.  TRANSFER NO.  PRODUCED  RECORDED  AUGUST TO SAME 18 MAY 1992  AC C416948 and  DEPUTY REGISTRAR OF TILES  MORTGAGE TO  BILL OF MORTGAGE TO
And Liam Akny Kruck.  Inow registered proprietory in fee simple.  TRANSFER NO. COH 353B  PRODUCED IH AN 1992  RECORDED  August to Euserunt 18 MAY 1992 of Aldred  No. CH16948 and DEPUTY REGISTRAR OF TILES  Montagy No. C560535K (CENTRAL DISTRICT)

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203743

Search Date: 15/10/2007 15:34 Title Reference: 50066755

Date Created: 26/04/1995

Previous Title: 50023954

REGISTERED OWNER Interest

Dealing No: 709177654 30/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

### ESTATE AND LAND

Estate in Fee Simple

LOT 4 REGISTERED PLAN 884695

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. EASEMENT No 601198350 (C543278E) 14/12/1987
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT F ON CP GV77
UNDER SECTION 285 OF THE LAND ACT

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50066755

Date Created: 26/04/1995

Previous Title: 50023954

REGISTERED OWNER Interest

Dealing No: 709177654 30/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400

UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400

BHP QUEENSLAND COAL INVESTMENTS PTY LTD

A.B.N. 56 098 876 825 17/200

MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000

QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25

QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000

OCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

TRANSFER No 709177654 BHP COAL PTY LTD A.B.N. 83 010 595 721 TENANT IN COMMON 163/400 UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 TENANT IN COMMON 3/400 BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.B.N. 56 098 876 825 TENANT IN COMMON 17/200 MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 TENANT IN COMMON 1553/10000 OCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 TENANT IN COMMON 3/25 OCT MINING PTY LTD A.B.N. 47 010 487 840 TENANT IN COMMON 789/5000 QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 TENANT IN COMMON 669/10000 Produced at 11:34 on 30/11/2005

TRANSFER TO TRUSTEE No 707062987
HORNERY & SONS PTY LTD A.C.N. 106 171 288 TRUSTEE
UNDER INSTRUMENT NO.707062987
Produced at 11:08 on 08/10/2003

TRANSFER No 700641995 to LACHLAN JAMES HORNERY SONIA PATREECE HORNERY JOINT TENANTS Produced at 10:13 on 10/05/1995

TRANSFER No 700634792 WITHDRAWN AND RE-ENTERED ON 05/05/1995 Produced at 12:16 on 05/05/1995

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50066755

Date Created: 26/04/1995

### ESTATE AND LAND

Estate in Fee Simple

LOT 4

REGISTERED PLAN 884695

County of GROSVENOR

Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. RELEASE No 709177641
 MORTGAGE: 707062994
 Produced at 11:33 on 30/11/2005

- 2. MORTGAGE No 707062994 CANCELLED BY 709177641 SUNCORP-METWAY LTD A.B.N. 66 010 831 722 Produced at 11:09 on 08/10/2003
- 3. RELEASE No 707062978
  MORTGAGE: 700796343
  Produced at 11:07 on 08/10/2003
- 4. CANCELLATION No 705729436 LEASE: 702394122 Produced at 12:38 on 24/06/2002
- 5. LEASE NO 702394122 CANCELLED BY 705729436
  LESLIE JOHN TONES
  OF THE WHOLE OF THE LAND
  Produced at 15:14 on 12/12/1997
- 6. MORTGAGE No 700796343 CANCELLED BY 707062978 to
  NATIONAL AUSTRALIA BANK LIMITED
  Produced at 09:04 on 09/08/1995
- 7. RELEASE No 700641979 of MORTGAGE: 601416220 (C668872N) Produced at 10:12 on 10/05/1995
- 8. RELEASE No 700641961 of MORTGAGE: 601198351 (C562009C)

Produced at 10:10 on 10/05/1995

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50066755

Date Created: 26/04/1995

### EASEMENTS, ENCUMBRANCES AND INTERESTS

9. MORTGAGE No 601416220 (C668872N) CANCELLED BY 700641979 TO NATIONAL AUSTRALIA BANK LIMITED Produced at 00:00 on 16/03/1993

10. TRANSFER No 601198352 (C668871K)
IN MORTGAGE NO C562009C
TO NATIONAL AUSTRALIA BANK LIMITED
Produced at 00:00 on 16/03/1993

- 11. MORTGAGE No 601198351 (C562009C) CANCELLED BY 700641961 TO PRIMARY INDUSTRY BANK OF AUSTRALIA LIMITED Produced at 00:00 on 14/11/1988
- 12. EASEMENT No 601198350 (C543278E)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT F ON CP GV77
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 13. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

### ADMINISTRATIVE ADVICES

Dealing Type 709167592 SETTLMNT NTC UNREGISTERED DEALINGS - NIL

Lodgement Date Status
25/11/2005 14:47 NOT CURRENT

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

COPYRIGHT THE STATE OF QUEENSLAND (NATURAL RESOURCES AND WATER) [2007] Requested By: External Supervisor

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203740

Previous Title: 30578009

REGISTERED OWNER

MAXWELL JOHN DAVIS

ESTATE AND LAND

Estate in Fee Simple

LOT 10 REGISTERED PLAN 615467

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. MORTGAGE No 700267641 05/10/1994 at 14:12 to
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203741

Search Date: 15/10/2007 15:34 Title Reference: 30580008

Date Created: 06/04/1988

Previous Title: 30578009

REGISTERED OWNER

Dealing No: 700267631 05/10/1994

MAXWELL JOHN DAVIS

ESTATE AND LAND

Estate in Fee Simple

LOT 7 REGISTERED PLAN 615467

> County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. EASEMENT IN GROSS No 601198349 (C543277C) 14/12/1987 BURDENING THE LAND TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD OVER EASEMENT A ON CP GV80 UNDER SECTION 285 OF THE LAND ACT

3. MORTGAGE No 700267641 05/10/1994 at 14:12

AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203738

Search Date: 15/10/2007 15:34 Title Reference: 30580009

Date Created: 06/04/1988

Previous Title: 30578009

REGISTERED OWNER Interest

Dealing No: 709101823 02/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400

UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400

BHP QUEENSLAND COAL INVESTMENTS PTY LTD

A.B.N. 56 098 876 825 17/200

MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000

QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25

QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000

QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

#### ESTATE AND LAND

Estate in Fee Simple

LOT 8 REGISTERED PLAN 615467

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. EASEMENT IN GROSS No 601198349 (C543277C) 14/12/1987
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT A ON CP GV80
UNDER SECTION 285 OF THE LAND ACT

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203737

Search Date: 15/10/2007 15:34 Title Reference: 30580010

Date Created: 06/04/1988

Previous Title: 30578009

REGISTERED OWNER Interest

Dealing No: 709101823 02/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

### ESTATE AND LAND

Estate in Fee Simple

LOT 9 REGISTERED PLAN 615467

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. EASEMENT IN GROSS No 601198349 (C543277C) 14/12/1987
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT A ON CP GV80
UNDER SECTION 285 OF THE LAND ACT

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2245380

Search Date: 18/10/2007 19:04 Title Reference: 30578009

Previous Title: 30574181

30575169

This Title Has Been Fully Cancelled.

Refer to Image for Additional Information

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

\*\* End of Historical Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2245380

Search Date: 18/10/2007 19:04 Title Reference: 30578009

Previous Title: 30574181

30575169

This Title Has Been Fully Cancelled.

Refer to Image for Additional Information

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

\*\* End of Historical Title Search \*\*

76941

## CERTIFICATE OF TITLE

Dealing No.: C548821N

Vol. C 580 Fol. 8

## **OUEENSLAND**



VOL:C 580 FOLIO:008

Previous Title: Vol. C578 Fol.

> Issued: 6 April, 1988

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such easements encumbrances and interests as are shown in the Second

Witness: Moudans

Acting Local Deputy Registrar of Titles (Central District)

### ESTATE AND LAND

Estate in Fee Simple in Lot 7 on Registered Plan No. 615467 County of Grosvenor Parish of Moranbah Containing 40 hectares

### FIRST SCHEDULE

THOMAS VICTOR DEGUARA, VICTOR CHARLES DEGUARA and GERARD JAMES DEGUARA as tenants in common in equal shares

### SECOND SCHEDULE

- 1. Rights and interests reserved to the Crown by Deed of Grant Volume C574 Folio 181 (Lot 10 on Plan GV303)
- 2. Mortgage No. C517928 to Westpac Banking Corporation over part of the land Produced 4 June 1986 Registered 5 June 1986 Resistered 25 NOV 1988 Resistered 25 NO Entered 14 December 1987

4. Mortgage (212431) No. C543279G to Westpac Banking Corporation over part of the land under Section 285 of Land Act Entered 14 December 1987 CSG2007W

25 NOV 1988

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

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FIRST SCH												SECOND SC		REGISTERED	+	2.5 NUV 1988		1 8 MAR 1993										HENTICATED
	REGISTERED PROPRIETOR	Geoffrey Allan Hornery and Sandra Julie Hornery as joint tenants												PARTICULARS		Primary Industry Bank of Australia Limited	National Australia Bank Limited is	Mortgagee under Mortgage No. C562009C	National Australia Bank Limited									NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED
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		Geoffi												NATURE		Mtge	Tfr		Mtge	)								

\* Dealings with this Lease will be Registered on the Original Lease only instead of on this Certificate of Title.

76958

## CERTIFICATE OF TITLE

Dealing No.: C548821N

Vol. C 580 Fol.

**OUEENSLAND** 

VOL:C 580 FOLIO:009

Previous Title: Vol. C578 Fol. 9

Issued: 6 April, 1988

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such easements encumbrances and interests as are shown in the Second Schedule

Witness: Marimo

Acting Local Deputy Registrar of Title: (Central District)

abacal

### ESTATE AND LAND

Estate in Fee Simple in Lot 8 on Registered Plan No. 615467 County of Grosvenor Parish of Moranbah Containing 40 hectares

### FIRST SCHEDULE

THOMAS VICTOR DEGUARA, VICTOR CHARLES DEGUARA and GERARD JAMES DEGUARA as

### SECOND SCHEDULE

- 1. Rights and interests reserved to the Crown by Deed of Grant Volume C574 Folio 181 (Lot 10 on Plan GV303)
- 2. Mortgage No. C517928 to Westpac Banking Corporation over part of the land Produced 4 June 1986 Registered 5 June 1986 LEASED VIDE No. C5620067
- 3. Easement (A818) No. C543277C to Utah Development Company and Mitsubishi
  Development Pty Ltd over Easement A on Plan GV80 under Section 285 of the Land Act
  Entered 14 December 1987
- 4. Mortgage (212431) No. C543279G to Westpac Banking Corporation over part of the land under Section 285 of Land Act Entered 14 December 1987

  [EALERSED VICE No. C5620070]

25 NOV 1969

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NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

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FIRST SCHEDULE (continued)												SECOND SCHEDULE (continued)		REGISTERED	1017	2 5 NOV 1988		1 8 MAR 1993						-				ENTICATED BY THE
	REGISTERED PROPRIETOR	Geoffrey Allan Hornery and Sandra Julie Hornery as joint tenants												PARTICULARS		Primary Industry Bank of Australia Limited	National Australia Bank Limited is	Mortgagee under Mortgage No. C562009C	National Australia Bank Limited									NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED.
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NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TILLES ARE CANG
\* Dealings with this Lease will be Registered on the Original Lease only instead of on this Certificate of Title.

30580010 V1 See ATS for Status Page 1 of

76964

CERTIFICATE OF TITLE

Dealing No.: C548821N

Vol. C580 Fol. 10

QUEENSLAND

Previous Title: Vol. C578 Fol. 9



VOL:C 580 FOLIO:010

Issued: 6 April, 1988

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such easements encumbrances and interests as are shown in the Second Schedule.

Witness: Allowalms

Acting Local Deputy Registrar of Titles (Central District)

### ESTATE AND LAND

Estate in Fee Simple in Lot 9 on Registered Plan No. 615467 County of Grosvenor Parish of Moranbah Containing 40 hectares

### FIRST SCHEDULE

THOMAS VICTOR DEGUARA, VICTOR CHARLES DEGUARA and GERARD JAMES DEGUARA as

### SECOND SCHEDULE

- 1. Rights and interests reserved to the Crown by Deed of Grant Volume C574 Folio 181 (Lot 10 on Plan GV303)
- 2. Mortgage No. C517928 to Westpac Banking Corporation over part of the land
  Produced 4 June 1986 Registered 5 June 1986 EASED VIDE No. 5 CASE TO 1988
- 3. Easement (A818) No. C543277C to Utah Development Company and Mitsubishi
  Development Pty Ltd over Easement A on Plan GV80 under Section 285 of the Land Act
  Entered 14 December 1987

4. Mortgage (212431) No. C543279G to Westpac Banking Corporation over part of the / land under Section 285 of Land Act Entered 14 December 1987.

TELEASED VIDE No. CSERCOTA

25 NOV 1988

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NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

M 2-Govt. Printer, Qld.

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FIRST SCHEDULE (continued)			os Katsanevas and Spilos 1/Bth												SECOND SCHEDULE (continued)		HEGIS LEHED	25 NOV 1988		1 8 MAR 1993												ATED BY on the C
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		4llan l	Mareten Katsanevas as personal representative, Wiron Harry Katsanevas, Lambr Marry Katsanevas as tenants in Common in equal shares					i,	٠.	1;						INSTRUMENT	NUMBER	C562009C	C668871K		C668872N											
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### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2204666

Search Date: 15/10/2007 16:13 Title Reference: 30563082

Date Created: 03/09/1986

REGISTERED OWNER Interest

ALISON ISOBEL MURPHY	1/4
EDWARD THOMAS MURPHY	1/4
GLENDA ROBYN ROWE	1/4
CASIMIR MARK ROWE	1/4

AS TENANTS IN COMMON

#### ESTATE AND LAND

Estate in Fee Simple

LOT 13 CROWN PLAN GV225

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 1. Rights and interests reserved to the Crown by Deed of Grant No. 30563082 (Lot 13 on CP GV225)
- 2. SEC 147A NOTATION NO 601083730 (147A) 31/12/1984
  THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962-1986
  APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND
- 3. EASEMENT IN GROSS No 601334226 (C522007) 12/09/1986 BURDENING THE LAND
  TO PORTIONS 14 AND 18 IN THE PARISH OF MORANBAH,
  PORTIONS 10 AND 9 IN THE PARISH OF WINCHESTER
  AND PORTIONS 7, 11 AND 13 IN THE PARISH OF VERMONT
  OVER EASEMENT C ON CP GV80
  UNDER SEC 285 OF THE LAND ACT

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - Yes

Certificate No. 1

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*



QUEENSLAND

### Register 563 Fol.

VOL:C 563 FOLIO:082



## Deed of Grant of Cand

Land Act 1962-1986

Elizabeth the Second, by the Grace of God, Queen of Australia, and Her other Realms and Territories, Head of the Commonwealth:-

### To All to whom these Presents shall come, Greeting:

We, with the advice of the Executive Council of Our State of Queensland, and in pursuance of the provisions of the Land Act 1962-1986 .

do hereby Grant in fee simple unto the person described in the Second Schedule hereto,

ALL that Parcel of Land in Our said State described in the First Schedule hereto and delineated on plan registered in the Department of Mapping and Surveying and having Catalogue Number as stated in such First Schedule,

SUBJECT TO the Reservations and Conditions hereinafter specified, and such other Reservations and Conditions as may be contained in and declared by the Laws of Our

Specified Reservations:-

- 1. (a) All minerals (as defined by the Mining Act 1968-1983 ) on and below the surface of the land; and
  - (b) The right of access for the purpose of searching for and working any mines (as defined by the Mining Act 1968-1983 ) in any part of the land.
- 2. (a) All petroleum (as defined by the Petroleum Act  $1923 \cdot 1986$  ) on or below the surface of the land; and
- (b) All rights of access for the purposes of searching for and for the operations of obtaining petroleum in any part of the land, and all rights of way for access and for pipe-lines and other purposes requisite for obtaining and conveying petroleum in the event of petroleum being obtained in any part of the said

Specified Conditions: Subject to the conditions prescribed by Section 147A of the Land Act 1962-1986.

IN TESTIMONY WHEREOF, We have caused this Our Grant to be Sealed with the Seal of Our said State.

WITNESS Our Trusty and Well-beloved His Excellency the Honourable Sir WALTER BENJAMIN CAMPBELL, one of Her Majesty's Counsel learned in the law. Governor in and over the State of Queensland and its Dependencies in the Commonwealth of Australia, at Government House, Brisbane, in Queensland aforested Twenty-first , in the thirty-fifth year of Our Reign and in the year of Our Lord One thousand day of August nine hundred and eighty-SiX.

M.B. Campbell

### FIRST SCHEDULE—DECRIPTION OF LAND

Lot 13 on Plan GV225

GROSVENOR

Parish MORANBAH

714.675 HECTARES, exclusive of 2.858 hectares for a surveyed road

### SECOND SCHEDULE—GRANTEE

WILLIAM ROBIN MURPHY, ALISON ISOBEL MURPHY as joint tenants inter se, EDWARD THOMAS MURPHY and GLENDA ROBYN ROWE as tenants in common in the shares of one-half, onefourth and one-fourth respectively

Department of Lands File Reference: APF.12/11356 (Por.13)

ENTERED in the Register Book, Vol. .........

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D 84--Govt. Printer, Qld.

Registrar of Titles
(CENTRAL DISTRICT)

		SEC	SECOND SCHEDULE—(continued)						
		REGISTERED PROPRIETOR		P C I T A I A	INSTRUMENT	distributed	REGISTERED	Signature of	
Chares of 1	12 Murphy, Edward Thom. 12-11/1 and 1/4 shared	bon Isobel Murphy, <u>Ldward Homas Murphy and Clenda Robyn Rowe as tenants in common in the</u> Bres of 1/2, 1/4 and 1/4 shares respectively	ats in commen in the	Rec/Dth	C579843F	18 Aug 1989	2 AUG. 1989	B.a. m. nakon	8
Alison Isobel M	urphy, Edward Thomas Murphy	Alison Isobel Murphy, Edward Thomas Murphy, Glenda Robyn Rowe and CasimirMark Rowe as tenants	its in common in equal shares	Tfr	C684193G	9 Sep 1993	29 SEP 1993	Sale (3)	Fol.
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		THIRD SCHEDULE (EASEM	EMENTS, ENCUMBRANCES AND INTERESTS	AND INTERES	TS)				3e 5
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NATURE	NUMBER	PARIICOLARS	Registrar of Titles		INSTRUMENT	UMENT		Signature of	
The provisions of S	Section 147A of the last	The provisions of Section 147A of the provisions of Section 147A of the plant of the land		NATURE	NUMBER	PRODUCED	REGISTERED	Registrar of Titles	
Agreement	c522006 pursuant	t to the provisions of the Stock Routes	SEP 1986 But hindow						
Easgreet	C522007 to Portions	to Portions 14 and 18 to the Parish of Moranbah, Portions 10 and 9 in the Parish of Minchester							
	and Port	dons 7, 11 and 13 in the Parish of over Easement c on Plan No. 0080, under							
	Sec. 285	Sec. 285 of the Land Act.	2 SEP 1986 B.a. h. makon						
	C529827 27 Feb 1987	997 Avotralia and New Zealand Danking—Group Limited—	- B MAR 1987 Strateurs	Release	C684191C	9 Sep 1993	29 SEP 1993	Kelada (3)	
	-								
		The second secon						-	
			A CONTRACT OF THE CONTRACT OF						
E 478—Govt. Printer, Qid.	NOTE	NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY	CATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED	REGISTRAR OF	TITLES ARE	CANCELLED.			

\* Dealings with this Lease will be Registered on the Original Lease only, instead of on this Deed of Grant.

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203175

Search Date: 15/10/2007 15:12 Title Reference: 50416979

Date Created: 27/11/2002

Previous Title: 30563093

REGISTERED OWNER Interest

Dealing No: 708027660 03/09/2004

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 090 779 873 1553/10000
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
QCT RESOURCES PTY LIMITED A.C.N. 010 808 705 669/10000

AS TENANTS IN COMMON

#### ESTATE AND LAND

Estate in Fee Simple

LOT 13 SURVEY PLAN 151669

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30563093 (Lot 12 on CP GV274)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

\*\* End of Current Title Search \*\*

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50416979

Date Created: 27/11/2002

Previous Title: 30563093

REGISTERED OWNER Interest

Dealing No: 708027660 03/09/2004

Produced at 11:47 on 03/09/2004

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 090 779 873 1553/10000
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
QCT RESOURCES PTY LIMITED A.C.N. 010 808 705 669/10000

AS TENANTS IN COMMON

TRANSFER No 708027660
BHP COAL PTY LTD A.B.N. 83 010 595 721
TENANT IN COMMON 163/400
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 090 779 873
TENANT IN COMMON 1553/10000
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386
TENANT IN COMMON 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.B.N. 56 098 876
825 TENANT IN COMMON 17/200
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831
TENANT IN COMMON 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840
TENANT IN COMMON 789/5000
QCT RESOURCES PTY LIMITED A.C.N. 010 808 705
TENANT IN COMMON 669/10000

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50416979

Date Created: 27/11/2002

### REGISTERED OWNER

Interest

Dealing No: 708027660 03/09/2004

CHANGE OF NAME No 708027653

BHP COAL PTY LTD A.B.N. 83 010 595 721

TENANT IN COMMON 163/400

MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 090 779 873

TENANT IN COMMON 1553/10000

UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386

TENANT IN COMMON 3/400

BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.B.N. 56 098 876

825 TENANT IN COMMON 17/200

QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831

TENANT IN COMMON 3/25

QCT MINING PTY LTD A.B.N. 47 010 487 840

TENANT IN COMMON 789/5000

QCT MANAGEMENT PTY LTD A.B.N. 57 010 472 036

TENANT IN COMMON 669/10000

Produced at 11:47 on 03/09/2004

TRANSFER No 706538207

BHP COAL PTY LTD A.B.N. 83 010 595 721

TENANT IN COMMON 163/400

MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 090 779 873

TENANT IN COMMON 1553/10000

UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386

TENANT IN COMMON 3/400

BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.B.N. 56 098 876

825 TENANT IN COMMON 17/200

OCT INVESTMENT PTY LTD A.B.N. 45 010 487 831

TENANT IN COMMON 3/25

QCT MINING PTY LTD A.B.N. 47 010 487 840

TENANT IN COMMON 789/5000

QCT MANAGEMENT LIMITED A.B.N. 57 010 472 036

TENANT IN COMMON 669/10000

Produced at 11:09 on 17/04/2003

### ESTATE AND LAND

Estate in Fee Simple

LOT 13 SUF

SURVEY PLAN 151669

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50416979

Date Created: 27/11/2002

### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30563093 (Lot 12 on CP GV274)

### ADMINISTRATIVE ADVICES

Dealing Type
706389074 SETTLMNT NTC
UNREGISTERED DEALINGS - NIL

Lodgement Date Status
26/02/2003 10:49 NOT CURRENT

CERTIFICATE OF TITLE ISSUED - No

\*\* End of Historical Title Search \*\*

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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243147

Search Date: 18/10/2007 15:19

Title Reference: 30563093

Date Created: 03/09/1986

### This Title Has Been Fully Cancelled.

REGISTERED OWNER	Interest
ALISON ISOBEL MURPHY	1/4
EDWARD THOMAS MURPHY	1/4
GLENDA ROBYN ROWE	1/4
CASIMIR MARK ROWE	1/4

### AS TENANTS IN COMMON

CORRECTION OF OWNER DETAILS No 705849756 from

ALISON ISOBEL MURPHY TENANT IN COMMON 1/4
EDWARD THOMAS MURPHY TENANT IN COMMON 1/4
GLENDA ROBYN ROWE TENANT IN COMMON 1/4
CASIMIN MARK ROWE TENANT IN COMMON 1/4
to
ALISON ISOBEL MURPHY TENANT IN COMMON 1/4
EDWARD THOMAS MURPHY TENANT IN COMMON 1/4
GLENDA ROBYN ROWE TENANT IN COMMON 1/4
CASIMIR MARK ROWE TENANT IN COMMON 1/4
Produced at 11:42 on 06/08/2002

### ESTATE AND LAND

Estate in Fee Simple

LOT 12 CROWN PLAN GV274

County of GROSVENOR

Parish of MORANBAH

Local Government: BELYANDO SHIRE

For exclusions refer to Plan CP GV274

### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 1. SURVEY PLAN No 706136223 subdivides the land into LOTS 12 AND 13 ON SP151669 Produced at 10:38 on 21/11/2002
- 2. TRANSFER No 703437100
   EASEMENT IN GROSS: 601351201 (C549469P)
   QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED
   A.C.N. 078 849 233
   Produced at 07:52 on 07/07/1999

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243147

Search Date: 18/10/2007 15:19 Title Reference: 30563093

Date Created: 03/09/1986

### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 3. EASEMENT IN GROSS No 601351201 (C549469P) CANCELLED BY 703437100 BURDENING THE LAND TO QUEENSLAND ELECTRICITY COMMISSION OVER EASEMENT A ON RP613854 Produced at 00:00 on 12/04/1988
- 4. SEC 147A NOTATION No 601083730 (147A)
  THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 1990
  APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND
  Produced at 00:00 on 31/12/1984
- 5. Rights and interests reserved to the Crown by Deed of Grant No. 30563093 (Lot 12 on CP GV274)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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C511/393



QUEENSLAND

Vol. 6563 Fol.

W.B. Campbell

93

VOL:C 563 FOLIO:093

20863003

### Deed of Grant of Cand

Land Act 1962-1986

Elizabeth the Second, by the Grace of God, Queen of Australia, and Her other Realms and Territories, Head of the Commonwealth:—

## To All to whom these Presents shall come, Greeting:

We, with the advice of the Executive Council of Our State of Queensland, and in pursuance of the provisions of the Land Act 1962-1986 ,

do hereby Grant in fee simple unto the person described in the Second Schedule hereto,

ALL that Parcel of Land in Our said State described in the First Schedule hereto and delineated on plan registered in the Department of Mapping and Surveying and having Catalogue Number as stated in such First Schedule,

SUBJECT TO the Reservations and Conditions hereinafter specified, and such other Reservations and Conditions as may be contained in and declared by the Laws of Our said State.

Specified Reservations .--

- 1. (a) All minerals (as defined by the Mining Act 1968-1983 ) on and below the surface of the land; and
- (b) The right of access for the purpose of searching for and working any mines (as defined by the Mining Act 1968-1983 ) in any part of the land.
- 2. (a) All petroleum (as defined by the Petroleum Act 1923-1986 ) on or below the surface of the land, and
- (b) All rights of access for the purposes of searching for and for the operations of obtaining petroleum in any part of the land, and all rights of way for access and for pipe-lines and other purposes requisite for obtaining and conveying petroleum in the event of petroleum being obtained in any part of the said land.

Specified Conditions - Subject to the conditions prescribed by Section 147A of the Land Act 1962-1986.

IN TESTIMONY WHEREOF, We have caused this Our Grant to be Sealed with the Seal of Our said State.

WITNESS Our Trusty and Well-bèloved His Excellency the Honourable Sir WALTER BENJAMIN CAMPBELL, one of Her Majesty's Counsel learned in the law, Governor in and over the State of Oueensland and its Dependencies in the Commonwealth of Australia, at Government House, Brisbane, in Queensland aforesaid, this Twenty-first day of August, in the thirty-fifth year of Our Reign and in the year of Our Lord One thousand nine hundred and eighty-six.

FIRST SCHEDULE-DECRIPTION OF LAND

Lot 12 on Plan GV274

County GROSVENOR

Parish MORANBAH

Area 10374.717 HECTARES, exclusive of 30.22 hectares for a surveyed road and a further 5.797 hectares for a railway

#### SECOND SCHEDULE-GRANTEE

WILLIAM ROBIN MURPHY, ALISON ISOBEL MURPHY as joint tenants inter se, EDWARD THOMAS MURPHY and GLENDA ROBYN ROWE as tenants in common in the shares of one-half, one-fourth and one-fourth respectively

Department of Lands File Reference:— APF.12/11356 (Por.12)

ENTERED in the Register Book, Vol. C 563, Folio 93 this 3rd day of September, 1986

1:100 000 8553

D 84-Govt. Printer, Qld.

acting DEP. Registrar of Titles
(CENTRAL DISTRICT)



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# **CURRENT TITLE SEARCH**

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203736

Search Date: 15/10/2007 15:34 Title Reference: 50513873

Date Created: 26/08/2004

Previous Title: 50367352

REGISTERED OWNER Interest

Dealing No: 709177714 30/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

#### ESTATE AND LAND

Estate in Fee Simple

LOT 14 SURVEY PLAN 163605

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. EASEMENT No 601198350 (C543278E) 14/12/1987
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT F ON CP GV77
UNDER SECTION 285 OF THE LAND ACT

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

#### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50513873

Date Created: 26/08/2004

Previous Title: 50367352

REGISTERED OWNER Interest

Dealing No: 709177714 30/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
OCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

TRANSFER No 709177714 BHP COAL PTY LTD A.B.N. 83 010 595 721 TENANT IN COMMON 163/400 UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 TENANT IN COMMON 3/400 BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.B.N. 56 098 876 825 TENANT IN COMMON 17/200 MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 TENANT IN COMMON 1553/10000 OCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 TENANT IN COMMON 3/25 OCT MINING PTY LTD A.B.N. 47 010 487 840 TENANT IN COMMON 789/5000 QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 TENANT IN COMMON 669/10000 Produced at 11:39 on 30/11/2005

TRANSFER No 708064430
DERRAN BRADLEY HORNERY
KYLIE LEE HORNERY JOINT TENANTS
Produced at 12:04 on 17/09/2004

### ESTATE AND LAND

Estate in Fee Simple

LOT 14 SURVEY PLAN 163605

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50513873

Date Created: 26/08/2004

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. REMOVAL No 709095035 SEC 147A NOTATION: 601083730 (147A Produced at 11:07 on 31/10/2005

2. RELEASE No 708064422

MORTGAGE: 601416220 (C668872N)

MORTGAGE: 702125063

Produced at 12:03 on 17/09/2004

3. RELEASE No 708064413 MORTGAGE: 702201846

Produced at 12:02 on 17/09/2004

- 4. MORTGAGE No 702201846 CANCELLED BY 708064413 SUNCORP-METWAY LIMITED A.C.N. 010 831 722 Produced at 11:11 on 09/09/1997
- 5. MORTGAGE No 702125063 CANCELLED BY 708064422 QIDC LIMITED A.C.N. 075 437 544 Produced at 09:31 on 30/07/1997
- 6. TRANSFER No 702125059

  MORTGAGE: 601416220 (C668872N)

  QIDC LIMITED A.C.N. 075 437 544

  Produced at 09:31 on 30/07/1997
- 7. MORTGAGE No 601416220 (C668872N) CANCELLED BY 708064422 TO NATIONAL AUSTRALIA BANK LIMITED Produced at 00:00 on 16/03/1993
- 8. EASEMENT No 601198350 (C543278E)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT F ON CP GV77
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 9. SEC 147A NOTATION No 601083730 (147A) CANCELLED BY 709095035 THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 1990 APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND Produced at 00:00 on 31/12/1984
- 10. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50513873

Date Created: 26/08/2004

ADMINISTRATIVE ADVICES

Dealing Type

709167618 SETTLMNT NTC

Lodgement Date Status

25/11/2005 14:48 NOT CURRENT

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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# **CURRENT TITLE SEARCH**

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203732

Search Date: 15/10/2007 15:34 Title Reference: 50513874

Date Created: 26/08/2004

Previous Title: 50367352

REGISTERED OWNER Interest

Dealing No: 709177612 30/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400
UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.B.N. 56 098 876 825 17/200
MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000
QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25
QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000
QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

#### ESTATE AND LAND

Estate in Fee Simple

LOT 16 SURVEY PLAN 163605

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

2. EASEMENT IN GROSS No 601198349 (C543277C) 14/12/1987
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT A ON CP GV80
UNDER SECTION 285 OF THE LAND ACT

3. EASEMENT No 601198350 (C543278E) 14/12/1987
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT F ON CP GV77
UNDER SECTION 285 OF THE LAND ACT

4. EASEMENT No 601098887 (C575095D) 30/05/1989 BURDENING THE LAND TO LOT 5 ON RP616898 OVER EASEMENT B ON RP620008

# **CURRENT TITLE SEARCH**

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2203732

Search Date: 15/10/2007 15:34 Title Reference: 50513874

Date Created: 26/08/2004

### EASEMENTS, ENCUMBRANCES AND INTERESTS

5. LEASE No 709177539 30/11/2005 at 11:26 KALARI PTY LTD A.C.N. 004 595 359

LEASE C ON SP160222

TERM: 01/08/2003 TO 31/07/2010 OPTION 2 YEARS

6. AMENDMENT No 709177550 30/11/2005 at 11:27

LEASE: 709177539

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

#### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current Title Search \*\*

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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50513874

Date Created: 26/08/2004

Previous Title: 50367352

REGISTERED OWNER Interest

Dealing No: 709177612 30/11/2005

BHP COAL PTY LTD A.B.N. 83 010 595 721 163/400

UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 3/400

BHP QUEENSLAND COAL INVESTMENTS PTY LTD

A.B.N. 56 098 876 825 17/200

MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 1553/10000

QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 3/25

QCT MINING PTY LTD A.B.N. 47 010 487 840 789/5000

QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 669/10000

AS TENANTS IN COMMON

TRANSFER No 709177612 BHP COAL PTY LTD A.B.N. 83 010 595 721 TENANT IN COMMON 163/400 UMAL CONSOLIDATED PTY LTD A.B.N. 29 000 767 386 TENANT IN COMMON 3/400 BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.B.N. 56 098 876 825 TENANT IN COMMON 17/200 MITSUBISHI DEVELOPMENT PTY LTD A.B.N. 17 009 779 873 TENANT IN COMMON 1553/10000 QCT INVESTMENT PTY LTD A.B.N. 45 010 487 831 TENANT IN COMMON 3/25 OCT MINING PTY LTD A.B.N. 47 010 487 840 TENANT IN COMMON 789/5000 QCT RESOURCES PTY LTD A.B.N. 74 010 808 705 TENANT IN COMMON 669/10000 Produced at 11:31 on 30/11/2005

#### ESTATE AND LAND

Estate in Fee Simple

LOT 16 SURVEY PLAN 163605

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50513874

Date Created: 26/08/2004

### EASEMENTS, ENCUMBRANCES AND INTERESTS

RELEASE No 709177571
 MORTGAGE: 702201846
 Produced at 11:28 on 30/11/2005

2. RELEASE No 709177560
MORTGAGE: 702125063
Produced at 11:28 on 30/11/2005

3. RELEASE No 709177555

MORTGAGE: 601416220 (C668872N)

Produced at 11:27 on 30/11/2005

4. AMENDMENT No 709177550 LEASE: 709177539 Produced at 11:27 on 30/11/2005

5. LEASE No 709177539

KALARI PTY LTD A.C.N. 004 595 359

LEASE C ON SP160222

TERM: 01/08/2003 TO 31/07/2010 OPTION 2 YEARS

Produced at 11:26 on 30/11/2005

6. SURVEY PLAN No 709245650 surveys part of the land into LEASE C ON SP160222 Produced at 15:18 on 22/12/2005

7. REMOVAL No 709095065
SEC 147A NOTATION: 601083730 (147A )
Produced at 11:08 on 31/10/2005

8. MORTGAGE No 702201846 CANCELLED BY 709177571 SUNCORP-METWAY LIMITED A.C.N. 010 831 722 Produced at 11:11 on 09/09/1997

9. MORTGAGE No 702125063 CANCELLED BY 709177560 QIDC LIMITED A.C.N. 075 437 544 Produced at 09:31 on 30/07/1997

10. TRANSFER No 702125059

MORTGAGE: 601416220 (C668872N)

QIDC LIMITED A.C.N. 075 437 544

Produced at 09:31 on 30/07/1997

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2242987

Search Date: 18/10/2007 15:11 Title Reference: 50513874

Date Created: 26/08/2004

### EASEMENTS, ENCUMBRANCES AND INTERESTS

11. MORTGAGE No 601416220 (C668872N) CANCELLED BY 709177555 TO NATIONAL AUSTRALIA BANK LIMITED Produced at 00:00 on 16/03/1993

- 12. EASEMENT No 601098887 (C575095D)
  BURDENING THE LAND
  TO LOT 5 ON RP616898
  OVER EASEMENT B ON RP620008
  Produced at 00:00 on 30/05/1989
- 13. EASEMENT No 601198350 (C543278E)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT F ON CP GV77
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 14. EASEMENT IN GROSS No 601198349 (C543277C)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT A ON CP GV80
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 15. SEC 147A NOTATION No 601083730 (147A) CANCELLED BY 709095065 THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 - 1990 APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND Produced at 00:00 on 31/12/1984
- 16. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

#### ADMINISTRATIVE ADVICES

Dealing Type
709167587 SETTLMNT NTC
UNREGISTERED DEALINGS - NIL

Lodgement Date Status
25/11/2005 14:46 NOT CURRENT

#### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243166

Search Date: 18/10/2007 15:20 Title Reference: 50367352

Date Created: 01/10/2001

Previous Title: 50066756

This Title Has Been Fully Cancelled.

#### REGISTERED OWNER

Dealing No: 705063670 21/09/2001

GEOFFREY ALLAN HORNERY

SANDRA JULIE HORNERY

JOINT TENANTS

#### ESTATE AND LAND

Estate in Fee Simple

LOT 5

SURVEY PLAN 135741

County of GROSVENOR

Parish of MORANBAH

Local Government: BELYANDO SHIRE

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 1. SURVEY PLAN No 707933576 subdivides the land into LOTS 14 AND 16 ON SP163605 Produced at 14:34 on 29/07/2004
- 2. MORTGAGE No 702201846 SUNCORP-METWAY LIMITED A.C.N. 010 831 722 Produced at 11:11 on 09/09/1997
- 3. MORTGAGE No 702125063
  QIDC LIMITED A.C.N. 075 437 544
  Produced at 09:31 on 30/07/1997
- 4. TRANSFER No 702125059

  MORTGAGE: 601416220 (C668872N)

  QIDC LIMITED A.C.N. 075 437 544

  Produced at 09:31 on 30/07/1997
- 5. MORTGAGE No 601416220 (C668872N) CANCELLED BY 702125059 TO NATIONAL AUSTRALIA BANK LIMITED Produced at 00:00 on 16/03/1993

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243166

Search Date: 18/10/2007 15:20 Title Reference: 50367352

Date Created: 01/10/2001

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

6. EASEMENT No 601098887 (C575095D)
BURDENING THE LAND
TO LOT 5 ON RP616898
0VER EASEMENT B ON RP620008
Produced at 00:00 on 30/05/1989

- 7. EASEMENT No 601198350 (C543278E)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT F ON CP GV77
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 8. EASEMENT IN GROSS No 601198349 (C543277C)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT A ON CP GV80
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 9. SEC 147A NOTATION No 601083730 (147A)
  THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 1990
  APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND
  Produced at 00:00 on 31/12/1984
- 10. SURVEY PLAN No 707928810 REMOVED Produced at 13:19 on 28/07/2004
- 11. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243192

Search Date: 18/10/2007 15:22 Title Reference: 50066756

Date Created: 26/04/1995

Previous Title: 50023954

This Title Has Been Fully Cancelled.

#### REGISTERED OWNER

Dealing No: 700596065 07/04/1995

GEOFFREY ALLAN HORNERY

SANDRA JULIE HORNERY

JOINT TENANTS

#### ESTATE AND LAND

Estate in Fee Simple

LOT 5

REGISTERED PLAN 884695

County of GROSVENOR

Parish of MORANBAH

Local Government: BELYANDO SHIRE

### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 1. SURVEY PLAN No 705063670 subdivides the land into LOTS 5 AND 11 ON SP135741 Produced at 15:39 on 21/09/2001
- 2. MORTGAGE No 702201846 SUNCORP-METWAY LIMITED A.C.N. 010 831 722 Produced at 11:11 on 09/09/1997
- 3. MORTGAGE No 702125063
  QIDC LIMITED A.C.N. 075 437 544
  Produced at 09:31 on 30/07/1997
- 4. TRANSFER No 702125059
  MORTGAGE: 601416220 (C668872N)
  QIDC LIMITED A.C.N. 075 437 544
  Produced at 09:31 on 30/07/1997
- 5. RELEASE No 702125058 MORTGAGE: 601198351 (C562009C) Produced at 09:31 on 30/07/1997

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243192

Date Created: 26/04/1995

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

6. MORTGAGE No 601416220 (C668872N) CANCELLED BY 702125059 TO NATIONAL AUSTRALIA BANK LIMITED Produced at 00:00 on 16/03/1993

7. TRANSFER No 601198352 (C668871K)
IN MORTGAGE NO C562009C
TO NATIONAL AUSTRALIA BANK LIMITED
Produced at 00:00 on 16/03/1993

- 8. EASEMENT No 601098887 (C575095D)
  BURDENING THE LAND
  TO LOT 5 ON RP616898

  0VER EASEMENT B ON RP620008

  Produced at 00:00 on 30/05/1989
- 9. MORTGAGE No 601198351 (C562009C) CANCELLED BY 702125058 TO PRIMARY INDUSTRY BANK OF AUSTRALIA LIMITED Produced at 00:00 on 14/11/1988
- 10. EASEMENT No 601198350 (C543278E)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT F ON CP GV77
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 11. EASEMENT IN GROSS No 601198349 (C543277C)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT A ON CP GV80
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 12. SEC 147A NOTATION NO 601083730 (147A)
  THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 1990
  APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND
  Produced at 00:00 on 31/12/1984
- 13. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243192

Search Date: 18/10/2007 15:22

Title Reference: 50066756

Date Created: 26/04/1995

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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Requested By: External Supervisor

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243192

Search Date: 18/10/2007 15:22

Title Reference: 50023954

Date Created: 20/10/1994

Previous Title: 30583034

This Title Has Been Fully Cancelled.

#### REGISTERED OWNER

Dealing No: 700197702 31/08/1994

#### ESTATE AND LAND

Estate in Fee Simple

LOT 4

REGISTERED PLAN 818135 County of GROSVENOR

Parish of MORANBAH

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 1. SURVEY PLAN No 700596065 subdivides the land into LOTS 4 AND 5 ON RP884695 Produced at 13:09 on 07/04/1995
- 2. MORTGAGE No 601416220 (C668872N)
  TO NATIONAL AUSTRALIA BANK LIMITED
  Produced at 00:00 on 16/03/1993
- 3. TRANSFER No 601198352 (C668871K)
  IN MORTGAGE NO C562009C
  TO NATIONAL AUSTRALIA BANK LIMITED
  Produced at 00:00 on 16/03/1993
- 4. EASEMENT No 601098887 (C575095D)
  BURDENING THE LAND
  TO LOT 5 ON RP616898
  OVER EASEMENT B ON RP620008
  Produced at 00:00 on 30/05/1989
- 5. MORTGAGE No 601198351 (C562009C) CANCELLED BY 601198352 TO PRIMARY INDUSTRY BANK OF AUSTRALIA LIMITED Produced at 00:00 on 14/11/1988

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243192

Search Date: 18/10/2007 15:22 Title Reference: 50023954

Date Created: 20/10/1994

### EASEMENTS, ENCUMBRANCES AND INTERESTS

6. EASEMENT No 601198350 (C543278E)
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT F ON CP GV77
UNDER SECTION 285 OF THE LAND ACT
Produced at 00:00 on 14/12/1987

- 7. EASEMENT IN GROSS No 601198349 (C543277C)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT A ON CP GV80
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 8. SEC 147A NOTATION No 601083730 (147A)
  THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 1990
  APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND
  Produced at 00:00 on 31/12/1984
- 9. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243207

Search Date: 18/10/2007 15:24 Title Reference: 30583034

Date Created: 22/09/1988

Previous Title: 30578219

This Title Has Been Fully Cancelled.

#### REGISTERED OWNER

#### ESTATE AND LAND

Estate in Fee Simple

LOT 4

REGISTERED PLAN 620007 County of GROSVENOR

Parish of MORANBAH

### EASEMENTS, ENCUMBRANCES AND INTERESTS

- 1. SURVEY PLAN No 700197702 subdivides the land into LOTS 1 AND 4 ON RP818135 Produced at 10:05 on 31/08/1994
- 2. MORTGAGE No 601416220 (C668872N)
  TO NATIONAL AUSTRALIA BANK LIMITED
  Produced at 00:00 on 16/03/1993
- 3. TRANSFER No 601198352 (C668871K)
  IN MORTGAGE NO C562009C
  TO NATIONAL AUSTRALIA BANK LIMITED
  Produced at 00:00 on 16/03/1993
- 4. EASEMENT No 601098887 (C575095D)
  BURDENING THE LAND
  TO LOT 5 ON RP616898
  OVER EASEMENT B ON RP620008
  Produced at 00:00 on 30/05/1989
- 5. MORTGAGE No 601198351 (C562009C) CANCELLED BY 601198352 TO PRIMARY INDUSTRY BANK OF AUSTRALIA LIMITED Produced at 00:00 on 14/11/1988

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2243207

Search Date: 18/10/2007 15:24 Title Reference: 30583034

Date Created: 22/09/1988

### EASEMENTS, ENCUMBRANCES AND INTERESTS

6. EASEMENT No 601198350 (C543278E)
BURDENING THE LAND
TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
OVER EASEMENT F ON CP GV77
UNDER SECTION 285 OF THE LAND ACT
Produced at 00:00 on 14/12/1987

- 7. EASEMENT IN GROSS No 601198349 (C543277C)
  BURDENING THE LAND
  TO UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY LTD
  OVER EASEMENT A ON CP GV80
  UNDER SECTION 285 OF THE LAND ACT
  Produced at 00:00 on 14/12/1987
- 8. SEC 147A NOTATION NO 601083730 (147A)
  THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962 1990
  APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND
  Produced at 00:00 on 31/12/1984
- 9. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

### CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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84770

# CERTIFICATE OF TITLE



Vol. C583 Fol. 34

Dealing No.: C557782F

**QUEENSLAND** 

Previous Title: Vol. C578 Fol. 219



22 September, 1988 Issued:

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such easements encumbrances and interests as are shown in the Second Schedule.

Witness: CHOLON

trar of Titles Acting Local Deputy Res (Central District)

### ESTATE AND LAND

Estate in Fee Simple in Lot 4 on Registered Plan No. 620007 County of Grosvenor Parish of Moranbah Containing 4964 hectares

#### FIRST SCHEDULE

THOMAS VICTOR DEGUARA, GERARD JAMES DEGUARA and VICTOR CHARLES DEGUARA as tenants in common in equal shares

### SECOND SCHEDULE

- Rights and interests reserved to the Crown by Deed of Grant Volume C574 Folio 181 (Lot 10 on Plan GV303)
- 2. The provisions of Section 147A of the Land Act 1962-1987 apply to a Transfer of the whole or part of the land.
- 3. Easement (A818) No. C543277C to Utah Development Company and Mitsubishi Development Pty. Ltd. over Easement A on Plan GV80 under Section 285 of the Land Act Entered 14 December 1987
- Easement (A819) No. C543278E to Utah Development Company and Mitsubishi Development Pty. Ltd. over Easement F on Plan GV77 under Section 285 of the Land Act Entered 14 December 1987
- Mortgage (212431) No. C543279G to Westpac Banking Corporation under Section-285 of the Land Act Entered 14 December 1987 7 14220 VINE No. C.S.63 CO.T. 2 1 NOV 1988

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

M 2-Govt. Printer, Qld.

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,	Signature of	APPLIATION THES	A. A. hihaham												Signature of Registrar of Titles						-							
	REGISTERED	25 NOV 1988											CANCELLATION	A STATE OF THE PARTY OF THE PAR	PRODUCED REGISTERED	and the state of t								The state of the s				
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FIRST SCHEDULE (continued)	REGISTERED PROPRIETOR	Geoffrey Allan Hornery and Sandra Julie Hornery as joint tenants	the Within land has been surveyed as proposed Easement B					The second secon				SECOND SCHEDULE (continued)		PARTICULARS	Primary Industry Bank of Australia Limited 25 NOV 1988	to Lot 5 on RP 616898 over Easement - 1 JUN 688 AR	National Australia Bank Limited is	Mortgagee under Mortgage No. C562009C 18 MAR 1993 S. 122 Speed (1993)	National Australia Bank Limited									NOTE: ENTRIES BILLED THEOLOGICA AND ALTERNATIONAL CONTRACTOR OF THE STATE OF THE ST
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		offrey Allan	rian cat No. 020008 part										SN -	NUMBER	C562009C	C575095D	C668871K		C668872N								-	
777		Ge(	- Dy - 1 an									-		NATURE	Mtge	Easement	Tfr		Mtge									

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED.

\* Dealings with this Lease will be Registered on the Original Lease only instead of on this Certificate of Title.

# **CURRENT TITLE SEARCH**

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2204664

Search Date: 15/10/2007 16:12 Title Reference: 30496058

Date Created: 28/05/1982

REGISTERED OWNER Interest

Dealing No: 710747433 25/06/2007

EXXARO AUSTRALIA PTY LTD A.C.N. 063 427 369

ANGLO COAL (GROSVENOR) PTY LTD A.C.N. 081 022 344

1/2

AS TENANTS IN COMMON

#### ESTATE AND LAND

Estate in Fee Simple

LOT 37 CROWN PLAN GV179

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. Rights and interests reserved to the Crown by Deed of Grant No. 30496058 (POR 37)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

#### CERTIFICATE OF TITLE ISSUED - No

\*\* End of Current Title Search \*\*

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c

[Form 1]

82.2041





### QUEENSLAND Deed of Grant of Land

Land Act 1962-1981

To all to whom these Presents shall come, Greeting:

Withtreas in conformity with the Laws and Regulations in force for the alienation of Crown Land in our State of Queensland,

ARTHUR DAVID MUIRHEAD and ADRIENNE KATHLEEN MUIRHEAD, his wife, as tenants in common in equal shares

have become entitled to a Deed of Grant in Foe-simple of the Land hereinafter described:

NOW KNOW YE, in consideration of the premises and of the sum of TWO HUNDRED DOLLARS

for Us, and on Our behalf, paid into the Cffice in Brisbane of the Department of Lands or at any District Land Office of Our said State, and in further consideration of the Quit-Rent hereinafter reserved, WE, with the advice of The Executive Council of Cur said State, have granted, and for Us, Cur Heirs and Successors, do hereby Grant unto the said ARTHUR DAVID MUIRHEAD and ADRIENNE KATHLEEN MUIRHEAD, his wife, as tenants in common in equal shares,

their Administrators and Assigns, subject to the Reservations hereinafter mentioned,

All That Parcel of Land in our State, containing by admeasurement

40.16 HECTARES

be the same more or less, situated in the County of GROSVENOR Parish of MORANBAH Being land granted under Section 208 of the Land Act 1962-1981 PORTION THIRTY-SEVEN,

as delineated on plan of Survey catalogue No. Gv. 179 deposited in Rights and Appurtenances whatsoever thereto belonging. To Hold unto the said deposited in the Department of Mapping and Surveying and as shown edged red on diagram hereon with all the

ARTHUR DAVID MUIRHEAD and ADRIENNE KATHLEEN MUIRHEAD, his wife, as tenants in common in equal shares,

their Administrators

their Administrators
and Assigns for ever, Yielding and Paying therefor Yearly unto Us, Our Heirs and Successors, the Quit-Rent of One Peppercorn for ever, if demanded: But Subject Nevertheless to the several Conditions and Reservations contained in and declared by the Land Act 1962-1981, the Mining Act 1968-1980 and the Petroleum Act 1923-1981: AND WE do hereby reserve unto Us, Our Heirs and Successors, all Gold and Minerals (the term "Minerals" to have the same meaning as in the Mining Act 1968-1980), on and below the surface of the said Land, and all Mines of Gold and Minerals, on and below the surface of the said Land: AND WE do hereby also reserve unto Us, Our Heirs and Successors, and to such persons as shall from time to time be duly authorised by Us in that behalf, the free right and privilege of access, including ingress, egress, and regress, into, upon, over, and out of the said Land, for the purpose of searching for or working Gold and Minerals or any of them, or Mines of Gold and Minerals, or any of them, in any part of the said Land: AND WE do hereby also reserve unto Us, Our Heirs and Successors, all Petroleum (the term "Petroleum" to have the same meaning as in the Petroleum Act 1923-1981), on or below the surface of the said Land: AND also all rights of access for the purpose of searching for, and for the operations of obtaining Petroleum in any part of the said Land: AND also all rights of access for the purposes requisite for obtaining and conveying Petroleum in the event of Petroleum being obtained in any part of the said Land:

IN TESTIMONY WHEREOF, We have caused this Our Grant to be Sealed with the Seal of Our said State.

WITNESS Our Trusty and Well-beloved His Excellency Commodore Sir James Maxwell Ramsay, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Commander of the Most Excellent Order of the British Empire, upon whom has been conferred the Decoration of the Distinguished Service Cross, and Commodore in the Royal Australia Navy (Retired), Governor in and over the State of Queenland and its Dependencies in the Commonwealth of Australia, at Government House, Britsbane, in Queensland aforesaid, this Thirteenth day of May

The North August of Our Reign and in the year of Our Lord One Thousand State Provided and in the York of Our Commonwealth of Australia, at Commonwe

ndred and eighty- two .

in the Department of Mapping and Country Land in the Register Book, Vol. ENTERED as 470 283 19 82. this Nineteenth day o

POR 20

RP 14378

ames 1

SURVEYOR-GENERAL

1130-17 40·16 ha.

89\*58'40"

POR 10

Plan Cat No. GV. 179

Scale 1:10 000

ENTERED in the Register Book, V 1:100 000 8553

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5575/1/82-2,500-Govt. Printer, Qld.

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Jam Kenneth Murrega as enants in
Common in equal shares
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REGISTERED 23 FEB 1984 J. Bulling
DEPUTY REGISTRAN OF THES
(CENTRAL DISTRICT)
CONVENTED
THE DESCRIPTION OF THE WORLD IS CONVERTED
TO LOT(S)
ON REGISTERED PLAN No. GV/73
2 6 FEB 1986
DEP. REGISTRAR OF TITLES
(CENTRAL DISTRICT)
William Henory Konschu and
Elaine Janet Krisch
as Jant tenants
and now registered proprietors in see simple.
TRANSFER NO. 2003247
BEGISTERED 27 OCT 1988
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(CENTRAL DISTRICT)
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NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2204665

Search Date: 15/10/2007 16:13 Title Reference: 17560077

Date Created: 21/10/1995

#### DESCRIPTION OF LAND

Tenure Reference: SL 12/42239

LOT 14 CROWN PLAN GV116

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

LOT 18 CROWN PLAN GV135

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

LOT 47 CROWN PLAN GV226

County of GROSVENOR Parish of MORANBAH

Local Government: BELYANDO SHIRE

LOT 13 CROWN PLAN CNS102

County of CAIRNS Parish of VERMONT

Local Government: BROADSOUND SHIRE

LOT 7 CROWN PLAN CNS144

County of CAIRNS Parish of VERMONT

Local Government: BROADSOUND SHIRE

LOT 9 CROWN PLAN CNS325

County of CAIRNS Parish of WINCHESTER

Local Government: BROADSOUND SHIRE

LOT 11 CROWN PLAN CNS394

County of CAIRNS Parish of VERMONT

Local Government: BROADSOUND SHIRE

LOT 10 SURVEY PLAN 137499

County of CAIRNS Parish of WINCHESTER

Local Government: BELYANDO SHIRE Local Government: BROADSOUND SHIRE

For exclusions refer to Plan CP GV116

Area: 20971.699000 Ha. (SURVEYED)

No Land Description

No Forestry Entitlement Area

Purpose for which granted: INDUSTRIAL (COAL MINING)

### TERM OF LEASE

Term and day of beginning of lease

Term: 31 years commencing on 01/01/1979

Expiring on 31/12/2009

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2204665

Search Date: 15/10/2007 16:13 Title Reference: 17560077

Date Created: 21/10/1995

REGISTERED LESSEE Interest

Dealing No: 708027673 03/09/2004

BHP COAL PTY LTD A.C.N. 010 595 721 163/400
QCT MINING PTY LTD A.C.N. 010 487 840 789/5000
MITSUBISHI DEVELOPMENT PTY LTD A.C.N. 009 779 873 1553/10000
QCT INVESTMENT PTY LTD A.C.N. 010 487 831 3/25
BHP QUEENSLAND COAL INVESTMENTS PTY LTD
A.C.N. 098 876 825 17/200
QCT RESOURCES PTY LIMITED A.C.N. 010 808 705 669/10000
UMAL CONSOLIDATED PTY LTD A.C.N. 000 767 386 3/400

AS TENANTS IN COMMON

#### CONDITIONS

- C1 The right of resuming the whole or any part of the leased land at any time on giving six (6) months notice and compensating for improvements only shall be reserved to the Crown.
- M76 No compensation for improvements or developmental works shall be payable by the Crown at the expiration of the term of the lease, but the Lessees shall have the right to remove movable improvements within a period of three months, provided all moneys due by the Lessees to the Crown on any account whatsoever have been paid.
- C170 The lessee shall not at any time destroy any tree upon the leased land without the prior permit in writing of the Land Commissioner or contrary to any of the terms and conditions of such permit.
- C173 The lessee shall not interfere with any forest products or remove any quarry material (including any stone, gravel, sand, earth, soil, rock, guano or clay which is not a mineral within the meaning of the Mining Act 1968) or other material upon the leased land without the permission of the Minister except under the authority of and in compliance in every respect with the requirements of a permit, license, agreement or contract granted or made under the Forestry Act 1959.
- C5 The lessee shall allow any person authorised under the Forestry Act 1959 access to the leased land for the purpose of cutting and removing timber or removing other forest products, or quarry material, or other material from the leased land.
- K1 The lessee shall maintain the leased land free from noxious plants.
- E10 The lessee shall pay the cost of any required survey of the leased land.
- M76 The Lessees shall use the leased land for Industrial (Coal Mining) purposes.

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2204665

Search Date: 15/10/2007 16:13 Title Reference: 17560077

Date Created: 21/10/1995

#### CONDITIONS

M76 The Lessees shall comply, in all respect, with the conditions of Special Coal Mining Lease No. 210, Clermont Warden's District which are applicable to the area comprised in the leased land.

M76 The leased land shall be used and enjoyed in conjunction with Special Coal Mining Lease No. 210 and shall not be transferred or assigned separately therefrom; in the event of determination of the said Special Coal Mining Lease the subject lease shall be surrendered to the Crown.

M76 Conversion of tenure in terms of the Land Act 1962-1978 will not be allowed.

#### **ENCUMBRANCES**

1. SUB LEASE No 602809097 (S8505) 19/05/1982
WILLIAM ROBIN MURPHY
ALISON ISOBEL MURPHY
JOINT TENANTS INTER SE 1/2
EDWARD THOMAS MURPHY
GLENDA ROBYN ROWE
OVER PART
FROM 17.3.1982 TO 30.12.2010
TRANSFER OF THE INTEREST OF SUBLESSEES REGISTERED 3.10.1984

- 2. SUB LEASE NO 602809098 (S8744) 04/10/1983 AUSTRALIAN TELECOMMUNICATIONS COMMISSION OVER PART FROM 23.8.1983 TO 30.12.2010
- 3. EASEMENT NO 602809099 (FC100173) 30/03/1984

  THE WITHINDESCRIBED HOLDING DERIVES A BENEFIT FROM EACH OF
  THE SERVIENT TENEMENTS AS WERE CREATED PURSUANT TO
  REGISTERED IN GROSS EASEMENTS NOS. A783, A800, A803, A805,
  A813, A814, A815, A818, A819, A820, A821, A827, A850, A851,
  A1022, A1057, A1099, A1130, A1131, A1268, A1271 AND A1496.
- 4. SUB LEASE No 705807943 19/07/2002 at 14:28 to QUEENSLAND NITRATES PTY LTD A.B.N. 63 079 889 268 OF PART OF THE LAND
- 5. SUB LEASE No 705893942 23/08/2002 at 09:45 SUB LEASE: 705807943 KALARI PTY LTD A.C.N. 004 595 395

### NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 2204665

Search Date: 15/10/2007 16:13 Title Reference: 17560077

Date Created: 21/10/1995

#### **ENCUMBRANCES**

6. SUB LEASE No 706811928 21/07/2003 at 12:36

to

DYNO NOBEL ASIA PACIFIC LIMITED A.B.N. 38 003 269 010

PART OF THE LAND

#### ADMINISTRATIVE ADVICES

Dealing	Туре	Lodgement Date	Status
709626310	VEG NOTICE	25/05/2006 14:03	CURRENT
	VEGETATION MANAGEMENT ACT	' 1999	
709830297	VEG NOTICE	04/08/2006 16:05	CURRENT
	VEGETATION MANAGEMENT ACT	' 1999	
710675470	WATER NOTICE	13/06/2007 11:13	CURRENT
	WATER ACT 2000		
710704071	WATER NOTICE	18/06/2007 11:36	CURRENT
	WATER ACT 2000		
710704119	WATER NOTICE	18/06/2007 11:42	CURRENT
	WATER ACT 2000		
710710253	WATER NOTICE	19/06/2007 09:12	CURRENT
	WATER ACT 2000		
710829030	WATER NOTICE	20/07/2007 10:21	CURRENT
	WATER ACT 2000		
710831552	WATER NOTICE	20/07/2007 14:22	CURRENT
	WATER ACT 2000		

#### UNREGISTERED DEALINGS - NIL

### ORIGINAL LEASE IN EXISTENCE - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Current State Tenure Search \*\*

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QUEENSLAND

C 520/113

VOL:C 574 FOLIO:181



### Land Act 1962-1987

Deed of Grant of Cand

Elizabeth the Second, by the Grace of God, Queen of Australia, and Her other Realms and Territories, Head of the Commonwealth:-

# To All to whom these Presents shall come, Greeting:

We, with the advice of the Executive Council of Our State of Queensland, and in pursuance of the provisions of the Land Act 1962-1987

do hereby Grant in fee simple unto the person described in the Second Schedule hereto,

ALL that Parcel of Land in Our said State described in the First Schedule hereto and delineated on plan registered in the Department of Mapping and Surveying and having Catalogue Number as stated in such First Schedule,

SUBJECT TO the Reservations and Conditions hereinafter specified, and such other Reservations and Conditions as may be contained in and declared by the Laws of Our said State.

Specified Reservations:-

- 1. (a) All minerals (as defined by the Mining Act 1968-1986 ) on and below the surface of the land; and
  - (b) The right of access for the purpose of searching for and working any mines (as defined by the Mining Act 1968-1986) in any part of the land.
- 2. (a) All petroleum (as defined by the Petroleum Act 1923-1986 ) on or below the surface of the land; and
- (b) All rights of access for the purposes of searching for and for the operations of obtaining petroleum in any part of the land, and all rights of way for access and for pipe-lines and other purposes requisite for obtaining and conveying petroleum in the event of petroleum being obtained in any part of the said land.

Specified Conditions:—Subject to the conditions prescribed by Section 147A of the Land Act 1962-1987

IN TESTIMONY WHEREOF, We have caused this Our Grant to be Sealed with the Seal of Our said State.

WITNESS Our Trusty and Well-beloved His Excellency the Honourable Sir WALTER BENJAMIN CAMPBELL, one of Her Majesty's Counsel learned in the law, Governor in and over the State of Queensland and its Dependencies in the Commonwealth of Australia, at Government House, Brisbane, in Queensland aforesaid, year of Our Reign and in the year of Our Lord One thousand , in the thirty-sixth twenty-sixth day of November nine hundred and eighty- seven.

FIRST SCHEDULE—DESCRIPTION OF LAND

Lot 10 on Plan GV303

County GROSVENOR

Parish MORANBAH

15750.8242 HECTARES, exclusive of 36.44 hectares for a surveyed road, 71.68 hectares for Lot 17 on Plan GV130, 31.44 hectares for Lot 46 on Plan GV259, 8468 square metres for Lot 52 on Plan GV302 and a further 94.455 hectares for railway

#### SECOND SCHEDULE-GRANTEE

THOMAS VICTOR DEGUARA, VICTOR CHARLES DEGUARA and GERARD JAMES DEGUARA as tenants in common in equal shares

Department of Lands File Reference: GHFL.12/2434B Clermont (Por.10)

ENTERED in the Register Book, Vol. ....

© 574 Folio 181

M.B. Campbell

8533 & 8453

ACTING DEPUTY

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	REGISTERED	~	17 FEB 1988											NO		REGISTERED															
	PRODUCED	21 Jan 1988	21 Jan 1988											CANCELLATION	INSTRUMENT	PRODUCED															CANCELLED.
:	INSTRUMENT	C545367R	C545368N										STS)		INST	NUMBER													7777		TITLES ARE
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	REGISTERED PROPRIETOR	is subdivide	No. 616898 balance of Lot 10 on Plan GV303 is sut					1 200					THIRD SCH		PARTICULARS	4.00	translater on the who	by resumption is taken by the wortnern Electric Authority of Queensland over Easement A on Plan GV91 under Section 285 of the Land Act	to Utah Development Company and Mitsubishi	of the Land	to Utah Development Company and Mitsubishi Development Pty. Itd over Fasement F on Plan	of the Land	ooration unde	by the Queen at C on Plan	B on Plan G/294 under Section 285 of the Land Act.		-			1	ED THROUGH
	REGISTER	within land	Lot 10 on Pl													1001 ganta to 0	1501 a, 127 0 a	ion is taken of Queenslan Section 285	velopment Cor	Section 285	velopment Cor nt Ptv Itd	Section 285	Banking Corl Land Act	ion is taken over Easemen	G/294 under				W. Maria		EN THE STATE OF TH
		part of the	balance of												PRODUCED	1 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	There was a man	Authority GV91 under	to Utah De	GV80 under	to Utah Der	GV77 under	to Westpac 285 of the	by resumpt Commission	B on Plan Act.						
		Cat 5 10.8 616897	No. 616898 CS78				-							INSTRUMENT	NUMBER	ection 1774 of th	T CEHENTEY	C2432/01	C543277C		C243278E	- 1		C543280L							
:		By Plan Cat	By Plan Cat.				7								NATURE	Tto excelsions of Section 1/7A of the test and act 1080 - 1001	Focomont	rascillent	Easement No A818		Easement No. A819		Mortgage No. 212431	Easement						200	4) o-covi. Printer, Gio.



QUEENSLAND

## Register 563 Fol.

VOL:C 563 FOLIO:082



# Deed of Grant of Cand

Land Act 1962-1986

Elizabeth the Second, by the Grace of God, Queen of Australia, and Her other Realms and Territories, Head of the Commonwealth:-

## To All to whom these Presents shall come, Greeting:

We, with the advice of the Executive Council of Our State of Queensland, and in pursuance of the provisions of the Land Act 1962-1986 .

do hereby Grant in fee simple unto the person described in the Second Schedule hereto,

ALL that Parcel of Land in Our said State described in the First Schedule hereto and delineated on plan registered in the Department of Mapping and Surveying and having Catalogue Number as stated in such First Schedule,

SUBJECT TO the Reservations and Conditions hereinafter specified, and such other Reservations and Conditions as may be contained in and declared by the Laws of Our

Specified Reservations:-

- 1. (a) All minerals (as defined by the Mining Act 1968-1983 ) on and below the surface of the land; and
  - (b) The right of access for the purpose of searching for and working any mines (as defined by the Mining Act 1968-1983 ) in any part of the land.
- 2. (a) All petroleum (as defined by the Petroleum Act  $1923 \cdot 1986$  ) on or below the surface of the land; and
- (b) All rights of access for the purposes of searching for and for the operations of obtaining petroleum in any part of the land, and all rights of way for access and for pipe-lines and other purposes requisite for obtaining and conveying petroleum in the event of petroleum being obtained in any part of the said

Specified Conditions: Subject to the conditions prescribed by Section 147A of the Land Act 1962-1986.

IN TESTIMONY WHEREOF, We have caused this Our Grant to be Sealed with the Seal of Our said State.

WITNESS Our Trusty and Well-beloved His Excellency the Honourable Sir WALTER BENJAMIN CAMPBELL, one of Her Majesty's Counsel learned in the law. Governor in and over the State of Queensland and its Dependencies in the Commonwealth of Australia, at Government House, Brisbane, in Queensland aforested Twenty-first , in the thirty-fifth year of Our Reign and in the year of Our Lord One thousand day of August nine hundred and eighty-SiX.

M.B. Campbell

## FIRST SCHEDULE—DECRIPTION OF LAND

Lot 13 on Plan GV225

GROSVENOR

Parish MORANBAH

714.675 HECTARES, exclusive of 2.858 hectares for a surveyed road

### SECOND SCHEDULE—GRANTEE

WILLIAM ROBIN MURPHY, ALISON ISOBEL MURPHY as joint tenants inter se, EDWARD THOMAS MURPHY and GLENDA ROBYN ROWE as tenants in common in the shares of one-half, onefourth and one-fourth respectively

Department of Lands File Reference: APF.12/11356 (Por.13)

ENTERED in the Register Book, Vol. .........

563

1:100 000 8553

D 84--Govt. Printer, Qld.

Registrar of Titles
(CENTRAL DISTRICT)

		SEC	SECOND SCHEDULE—(continued)						
		REGISTERED PROPRIETOR		P C I T A I A	INSTRUMENT	distributed	REGISTERED	Signature of	
Chares of 1	12 Murphy, Edward Thom. 12-11/1 and 1/4 shared	bon Isobel Murphy, <u>Ldward Homas Murphy and Clenda Robyn Rowe as tenants in common in the</u> Bres of 1/2, 1/4 and 1/4 shares respectively	<del>ats in commen in the</del>	Rec/Dth	C579843F	18 Aug 1989	2 AUG 1989	B.a. m. nakon	8
Alison Isobel M	urphy, Edward Thomas Murphy	Alison Isobel Murphy, Edward Thomas Murphy, Glenda Robyn Rowe and CasimirMark Rowe as tenants	its in common in equal shares	Tfr	C684193G	9 Sep 1993	29 SEP 1993	Sale (3)	Fol.
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									<u>£</u> 99
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									Pages)
									o to
		THIRD SCHEDULE (EASEM	EMENTS, ENCUMBRANCES AND INTERESTS	AND INTERES	TS)				3e 5
	INSTRUMENT					CANCELLATION	NOI		(Pa
NATURE	NUMBER	PARIICOLARS	Registrar of Titles		INSTRUMENT	UMENT		Signature of	
The provisions of S	Section 147A of the l	The provisions of Section 147A of the provisions of Section 147A of the plant of the land		NATURE	NUMBER	PRODUCED	REGISTERED	Registrar of Titles	
Agreement	c522006 pursuant	t to the provisions of the Stock Routes	SEP 1986 But hindow						
Easgreet	C522007 to Portions	to Portions 14 and 18 to the Parish of Moranbah, Portions 10 and 9 in the Parish of Minchester							
	and Port	dons 7, 11 and 13 in the Parish of over Easement c on Plan No. 0080, under							
	Sec. 285	Sec. 285 of the Land Act.	2 SEP 1986 B.a. h. makon						
	C529827 27 Feb 1987	997 Avotralia and New Zealand Danking—Group Limited—	- B MAR 1987 Strateurs	Release	C684191C	9 Sep 1993	29 SEP 1993	Kelada (3)	
		The second secon						-	
			A CONTRACT OF THE CONTRACT OF						
E 478—Govt. Printer, Qid.	NOTE	NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY	CATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED	REGISTRAR OF	TITLES ARE	CANCELLED.			

\* Dealings with this Lease will be Registered on the Original Lease only, instead of on this Deed of Grant.

79.941 VOL.

7560 FOL. 77 DUPLICATE

Special Lease No. 42239

QUEENSLAND



17560077

Lease for Special Purposes, under Section 203(a) of the Land Act 1962–1978

Elizabeth the Second, by the Grace of God, Queen of Australia, and Her other Realms and Territories, Head of the Commonwealth:—

To All to whom these Presents shall come, Greeting:

On title to might them described house, and the same.
Le contraction of the contractio
THE TOTOXIC UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY, LTD., AUSTRALIAN
HITET CATE UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY. LTD., AUSTRALIAN UTUAL PROVIDENT SOCIETY and UTAH MINING AUSTRALIA LIMITED as tenants in common in interests of 305/400th, 48/400th, 31/400th, 16/400th respectively,
have made application for a lease under the provisions of Section 203(a) of the Land Ast 1962-1978
(hereinafter referred to as "the said Act") of the Land hereinafter described: AND WHEREAS the Governor of Our State of Queensland, with the advice of the Executive Council thereof, has granted such application.
and has agreed to issue a Lease of the said Land in Our name for the term, at the rent, and upon and
subject to the conditions hereinafter mentioned: Now Know YE that in consideration of the premises, and of the rent, reservations, and conditions hereinafter reserved and contained, WE, in pursuance of the said Act
DO HEREBY for Us, Our Heirs and Successors, Demise and Lease unto the said UTAH DEVELOPMENT COMPAN
MITSUBISHI DEVELOPMENT PTY. LTD., AUSTRALIAN MUTUAL PROVIDENT SOCIETY and UTAH MINING AUSTRALIA LIMITED as tenants in common in such interests as aforesaid
(hereinafter with their Successors in title
designated "the Lessees "), and their lawful Assigns, for Industrial (Coal Mining)
purposes
ALL that parcel of Land particularly described in the First Schedule endorsed on these Presents To Hold
the same unto the Lessees and their lawful Assigns for and during the term ofThirty - one Years
the same unto the ressects and court and during the term of the court of the ressect of the ress
to be computed from the First day of January One thousand
nine nundred and seventy————————————————————————————————————
exceptions, reservations, provisoes, penalties, and forfeitures hereinafter particularly mentioned or referred to, or contained in or prescribed by the said Act, and to the conditions, reservations, and provisoes in the Mining
Act 1968-1976 and the Petroleum Act 1923-1976, or any Regulations made or which may hereafter
be made under the aforesaid Acts, or any of them: YIELDING AND PAYING unto Us Our Heirs and Successors,
subject to the provisions of the said Act during the said term the yearly rent of One thousand five hundred dollars;
live mindred dollars;
five hundred dollars;
such rent to be paid at the Office in Brisbane of the Department of Lands, or at my District Land Office, in Our said State, or at such other place as may from time to time be appointed by the Governor of Our
said State in Council, on or before the First day of January in each and every year of the said term.
AND IT IS HEREBY EXPRESSLY DECLARED AND AGREED that the Lessees shall not in any way assign or sublet
the said Land, or any part thereof, or grant to any person the right of occupation or tenancy to, over, or support the said Land, or any part thereof, or of any structure or building erected thereon, without the consent
in writing of the Minister for Lands, Forestry and Water Resources for the time heing of Our
said State first had and obtained: AND IT IS ALSO DECLARED AND AGREED and these Presents are upon the

such the paid at the Office in Brisbane of the Department of Lands, or at the District Land Office, in Our said State, or at such other place as may from time to time be appointed by the Governor of Our said State in Council, on or before the First day of January in each and every year of the said term:

And It is hereby expressly Declared and Agreed that the Lessees shall not in any way assign or sublet the said Land, or any part thereof, or grant to any person the right of occupation of tenancy to, over, or apon the said Land, or any part thereof, or of any structure or building erected thereon, without the consent in whiting of the Minister for Lands, Forestry and Water Resources for the time being of Our said State first had and obtained: And it sales depend and these Presents are upon the express condition, that the Lease hereby granted shall be subject to the conditions set forth in the Second Schedule endorsed hereon: And that if the Lessees make default in payment of the rent hereby reserved, or any part thereof, at the times and in the manner herein prescribed, or fail to observe and perform the terms, stipulations, agreements, and conditions herein and in the Second Schedule contained or referred to, or any of them, then, and in such case, this Lease shall be liable to be forfeited. And We do hereby Reserve unto Us, Our Heirs and Successors, the full and free right to take and remove any Indigenous Timber growing the same, which may at any time hereafter be required for the construction or repair of any Public Works:

And Also, the right of full and free ingress, egress, and regress, into, upon, over, and out of the said Land for the several purposes aforesaid: Provided always and We do hereby Reserve unto us, Our Heirs and Successors, all Gold and Minerals (the term "Minerals" to have the same meaning as in the Mining Act 1968–1976),

DUTY STAM

[Form 18]

on and below the surface of the said Land, and all Mines of Gold and Minerals on and below. We surface of the said Land: AND WE DO HEREBY ALSO RESERVE unto Us, Our Heirs and Successors, and to time be duly authorised by Us in that behalf, during the term of the said Lease, the free right and privilege of access, including ingress, egress, and regress, into, upon, over, and out of the said Land, for the purpose of searching for or working Gold and Minerals, or any of them, or Mines of Gold and Minerals, or any of them, in any part of the said Land: AND WE DO HEREBY ALSO RESERVE unto Us, Our Heirs and Successors, all Petroleum (the term "Petroleum" to have the same meaning as in the Petroleum Act 1923-1976), on or below the surface of the said Land: AND ALSO all rights of access for the purpose of searching for and for the operations of obtaining Petroleum in any part of the said Land: the purpose of searching for and for the operations of obtaining Petroleum in any part of the said Land:

AND ALSO all rights of way for access and for pipe lines and other purposes requisite for obtaining and conveying Petroleum in the event of Petroleum being obtained in any part of the said Land AND WE DOTO

FURTHER RESERVE the right of any person duly authorised in that behalf by the Governor of Our said State in Council at all times to go upon the said Land, or any part thereof, for any purpose whatscever, or to make any survey, inspection, or examination of the same.

IN TESTIMONY WHEREOF, We have caused this Our Lease to be Sealed with the Seal of Our said State.

WITNESS Our Trusty and Well-beloved His Excellency Commodore Sir JAMES MAXWELL RAMSAY, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Commander of the Most Excellent Order of the British Empire, upon whom has been conferred the Decoration of the Distinguished Service Cross, and Commodore in the Royal Australian Navy (Retired), Governor in and over the State of Queensland and its Dependencies in the Commonwealth of Australia, Government House, Brisbane, in Queensland aforesaid, this

....day of.....

eighth year of Our Reign and in the year of Our Lord

One thousand nine hundred and seventy-ning

FIRST SCHEDULE

SPECIAL LEASE NO.

DISTRICT:...

County: Grosvenor & Cairns

PARISHES: Moranbah, Winchester & Vermont

Lot 7 on Plan CNS 144, Lot 9 on Plan CNS 325, Lot 10 on Plan CNS 123, Lot 11 on Plan CNS 328, Lot 13 on Plan CNS 102.

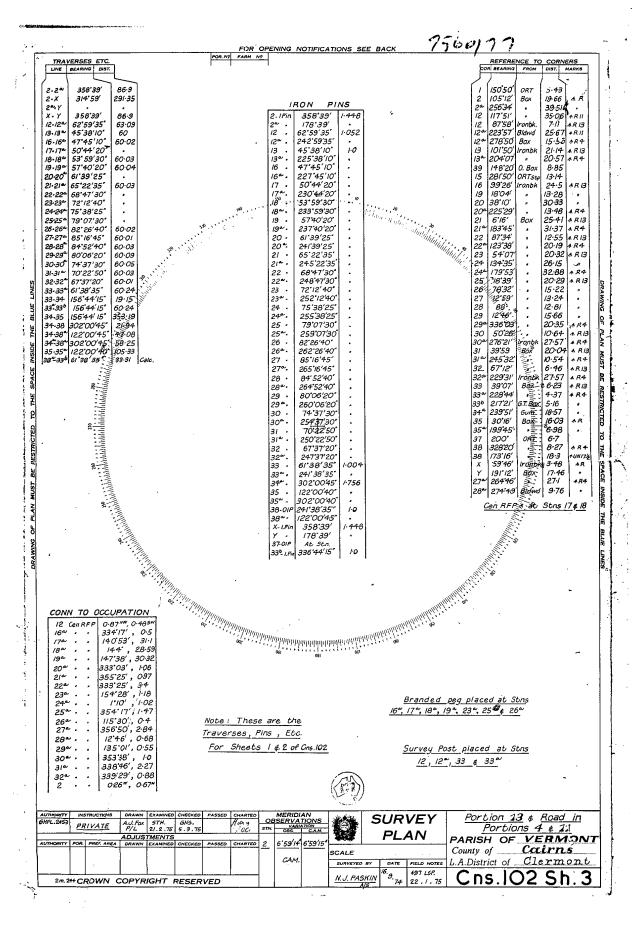
Portions: Fourteen & Eighteen (Moranbah); Ten & Nine (Winchester); Seven, Eleven & Thirté

AREA: About 20 150 hecta

Lot 14 on Plan GV116, Lot 18 on Plan GV135 and Lot 47 on

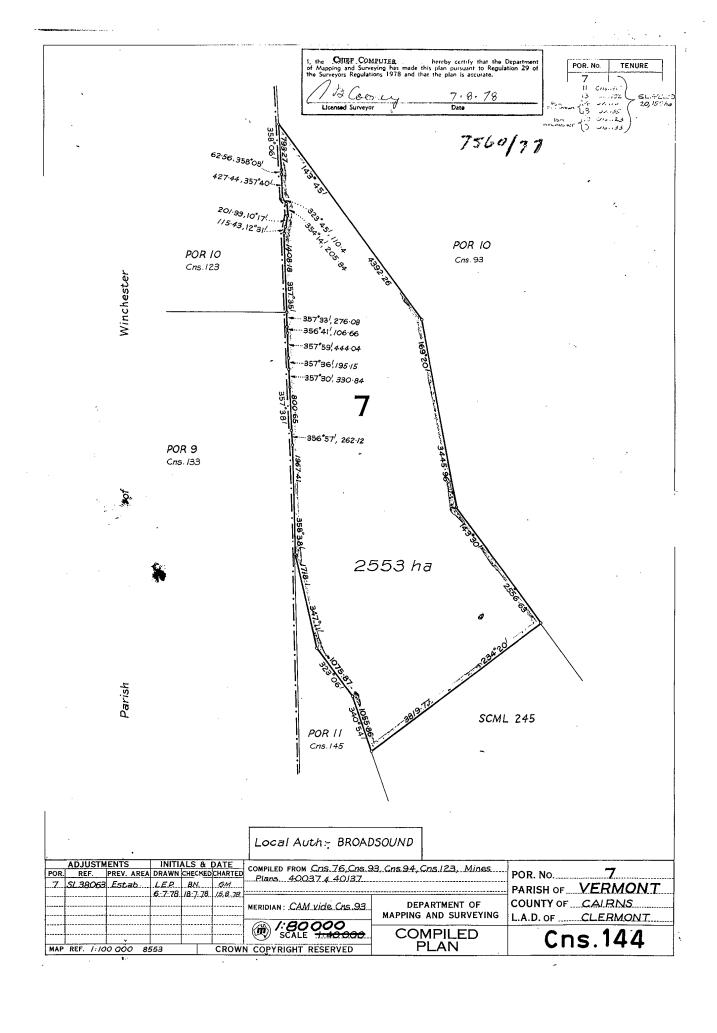
Lasky, 18,9, 10,7,11013 BF. Plann Gry 116, GV 135 CNS 133, CHS 123 Sh (1) CHS 102 SLISLE SK3

SEE ATTACHED DIAGRAMS

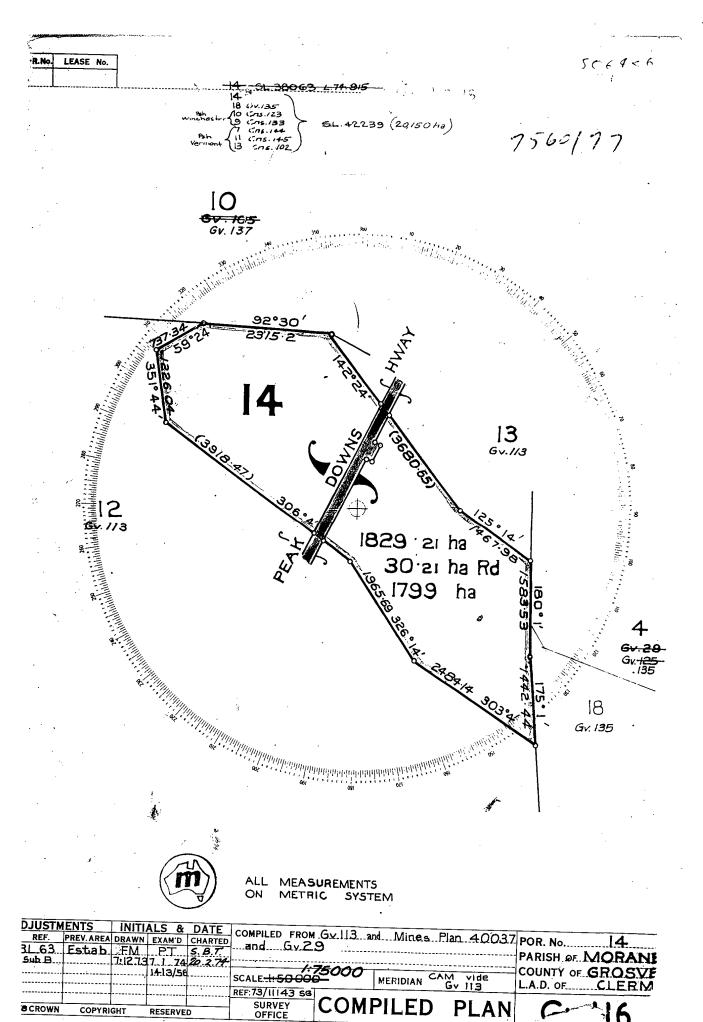


THIS PLAN IS PART OF THE INSTRUMENT OF LEASE AND SHOULD NOT BE REMOVED

7560/77



THIS PLAN IS PART OF THE INSTRUMENT OF LEASE AND SHOULD NOT BE REMOVED



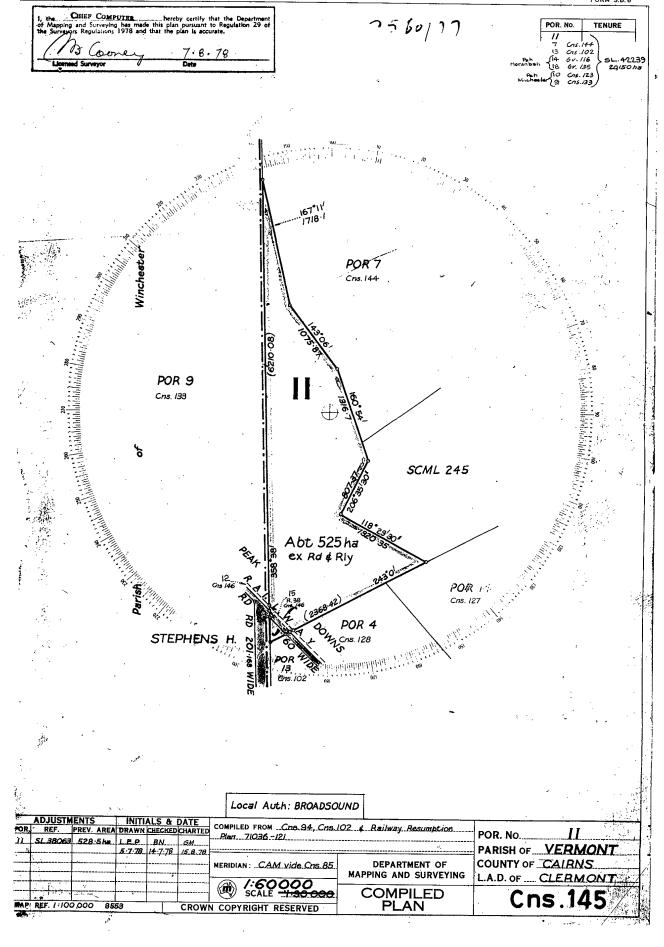
& CROWN

COPYRIGHT

RESERVED

16

THIS PLAN IS PART OF THE INSTRUMENT OF LEASE AND SHOULD NOT BE REMOVED



THIS PLAN IS PART OF THE INSTRUMENT OF LEASE AND SHOULD NOT BE REMOVED

# SECOND SCHEDULE

(Conditions)

The right of resuming the whole or any part of the leased land at any time, on giving six months' notice and compensating for improvements only, shall be reserved to the Crown.

No compensation for improvements or developmental works shall be payable by the Crown at the expiration of the term of the lease, but the Lessees shall have the right to remove movable improvements within a period of three months, provided all moneys due by the Lessees to the Crown on any account whatsoever have been paid. However should the leased land revert to the Crown and be again made available for lease or purchase the former Lessees shall be entitled to receive payment for the value of their improvements or developmental work in accordance with the principles set out in the said Act.

The Lessees shall not at any time destroy any tree upon the leased land without the prior permit in writing of the Land Commissioner or contrary to any of the terms and conditions of such permit.

The Lessees shall not interfere with any forest products or remove any quarry material (including any stone, gravel, sand, earth, soil, rock, guano or clay which is not a mineral within the meaning of the Mining Act 1968–1976) or other material upon the leased land without the permission of the Minister except under the authority of and in compliance in every respect with the requirements of a permit, license, agreement or contract granted or made under the Forestry Act 1959–1976.

The Lessees shall allow any person authorised under the Forestry Act 1959-1976 access to the leased land for the purpose of cutting and removing timber or removing other forest products, or quarry material, or other material from the leased land.

The Lessees shall maintain the leased land free from noxious plants.

The Lessees shall pay the cost of any required survey of the leased land.

- 1. The Lessees shall use the leased land for Industrial (Coal Mining) purposes.
- 2. The Lessees shall comply, in all respect, with the conditions of Special Coal Mining Lease No. 210, Clermont Warden's District which are applicable to the area comprised in the leased land.
- 3. The leased land shall be used and enjoyed in conjunction with Special Coal Mining Lease No. 210 and shall not be transferred or assigned separately therefrom; in the event of determination of the said Special Coal Mining Lease the subject lease shall be surrendered to the Crown.
- 4. Conversion of tenure in terms of the Land Act 1962-1976 will not be allowed.



# Transfers, Mortgages, Etc., Registered

PROOF that the WONTE WING WEST PART OF THE TEN tenants in common in the withindescribed holding is UMAL CONSOLIDATAD LIMITED, produced. Registered: NOV. 23 1981 Registrat

SUBLEASE of part of the withindescribed holding to DU PONT (AUSTRALIA) LTD. for the term of manting community ten (10) years June, 19.81 from the 22nd day of 7 JAN 1982 .....of the within-SUBLEASE of \_\_\_\_part\_\_\_ described hadding to RICHARD WILLIAM JANSEN and THERESE PATRICIA JANSEN as joint tenants xxxxxx, commencing until the 30th day of December, 2009. SUBLEASE of part of the withindescribed holding to COALDART PTY. LTD. for the term of three (3) years xxxxxx, commo circles from the 13th dry of October 19 82.

Registered: 15 DFC 1982

No. 8596 Horse Registrar of Dealing Marie Company of the with the spis SUBLEASE of part described holding to AUSTRALTAN TOTAL UNIVERSITY intil 30th December, 2010. Registered 4 00 183 rearths, commencing August, 19.83 -Oglidine No. 8744 A Registrar of Dealings SUBLEASE of.

described holding to Johnson osive ten (10) years 4005 officers mencing from the 25th 15 20 \$1990 1992.

Registered: 71 REG D. 2005 officers REGISTRAN CT PAULOG No. 8757 Registrar of Desings

THE withindescribed holding derives a benefit from each of the servient tenements as were created pursuant to registered in gross Easements Nos. A783, A800, A803, 4805, 14813, 14814, 14815, 14818, 14819, 14820 A821, A827, A850, A851, A41022, A105 A1130, A1131, A1268, A1271 800 A1099, AA1496.

Registrar of Dealings

30th March, 1984

TRANSFER of the Lessee's Interest in the withindescribed holding to UTAH DEVELOPMENT COMPANY, MITSUBISHI DEVELOPMENT PTY. LTD. AUSTRALIAN MUTUAL PROVIDENT SOCIETY, UMAL CONSOLIDATED LIMITED, PANCONTINENTAL MINING LIMITED, BELL COAL PTY. LTD., GENERAL ELECTRIC MINERALS INC., BOWEN BASIN MINERALS INC., UB MINERALS INC., QCT INVESTMENT PTY. LTD., QCT MINING PTY. LTD. as tenants in dommon in the interests of 124/400, 48/400, 31/400, 16/400, 12/400, 20/400, 34/400, 8/400, 20/400, 48/400 and 39/400 respectively.

Registered:

1 4 JUN. 1384

Registrar of Dealings

IN terms or Regulation 41A (1) of the Land Regulations, the description of the Land comprised in the within lease is amended to lot. on plan

Registrar of Dealings.

IN terms or Regulation 41A (1) of the Land Regulations, the description lea e is amonded to lots +4,189,10,7,11+13 on plans Gv 116, Gv 135, Cn = 133, cm Sh 1 a Cn s 123 Sh 2, Cons 144 Cns 145 Cns 102 Sh 1, Sh 2, 25 3

Registrar of Dea

IN pursuance of the Companies Act 1961-1981 the name of Utah Development Company one of the lessee Companies i respect of the withindescribed holding has been changed to UTAH DEVELOPMENT COMPANY LIMITED.

Registered:

-3 SCT 1984 Registrar of Dealings.com

TRANSFER of the Interest of the sublessee in Sublease No. 8505 to WILLIAM ROBIN MURPHY, ALISON ISOBEL MURPHY as joint tenants inter se, EDWARD THOMAS TURPHY and GLENDA ROBYN ROWE as tenants in common in the interests of 1/2, 1/4 and 1/4 restance of 1/2, 1/4 and 1/4 rest

Govt. Printer, Brisbane-67363/9

Consequent upon the inclusion of an area of Crown land in the withindescribed holding, His Excellency the Governor in Council, dated the 22nd day of May, 1986, has directed that the relative lease be amended: the area of the said lding is thereby amended to: 20 960 hectars, and the annual rent \$1,560.34 and the description to Lot 7 on plan CNS144, Lot 9 on plan CNS325, Lot 10 on plan CNS123, Lot 11 on plan CNS328, Lot 13 on plan CNS102, Lot 14 on plan GV116, Lot 18 on plan GV135 and Lot 47 on plan GV226 as from the 1.10.84.

Registrar of Dealings.

Mortgage No. 210247 over Sublease Explosives (Quesnsland) Registered: 18 NOV 1986 Registrar of Dealings

IN pursuance of the Companies Act 1961-1981 the name of General Electric Minerals, Inc. one of the lessee Companies in respect of the withindescribed holding has been changed to UTAH QUEENSLAND COAL LIMITED.

Registered: 19 MAR 1987

Registrar of Dealings.

IN pursuance of the Companies Act 1961-1981 the name of Bowen Basin Minerals, Inc., one of the lessee Companies in respect of the withindescribed holding has been changed to BOWENGBASIN MINIRALS PROPRIETARY LIMITED Registered:

19 MAR 1987

Registrar of Dealings.

TRANSFER of the Lessee's Interest in the withindescribed holding to UTAH DEVELOPMENT COMPANY LLTTED, MITSUBISHI DEVELOPMENT PTY. LTD., AUSTRALIAN MUTUAL PROVIDENT SOCIETY, UMAE-CONSOLIDATED LIMITED, PANCONTINENTAL MINING LIMITED, BELL COAL PTY: LTD., UTAH QUEENGLAND COAL LIMITED, BOWEN BASIN MINERALS PROPRIETARY LIMITED; UB MINERALS, INC.; QCT INVESTMENT PTY. LTD. and QCT MINING PTY. LTD. as tenants in common in the interests of 124/400, 48/400, 31/400, 3/400, 12/400, 20/400, 34/400, 8/400, 20/400, 48/400 and 52/400 respectively

Registered:

19 MAR 1987

Registrar of Dealings.

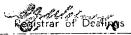
of Witch Development Company Limited 89 e within described holding has been changed

BHP-UTAH COAL LIMITED

Registered: 26,007,1987

TRANSFER of the Interest of the sublessed in Sublease No. 8757 to KALEBRA PTY. LIMITED

Registered: - 9 MAY 1989



IN pursuance to the provisions of the Companies Act 1961-1981, the name of the Sublessee Company in respect of Sublease No. 8757 has been changed to NITRO-NOBEL JOHNSON BULK EXPLOSIVES PTY. LIMITED.

Registered:

- 9 MAY 1989

Colleborne Registrar of Dealings

TRANSFER of the Lessee's Interest in the withindescribed holding to BHP-UTAH COAL LIMITED, MITSUBISHI DEVELOPMENT PTY LTD. AUSTRALIAN MUTUAL PROVIDENT SOCIETY, D UMAL CONSOLIDATED LIMITED. PANCONTINENTAL MINING LIMITED. UTAH QUEENSLAND COAL LIMITED, BOWEN BASIN MINERALS PROPRIETARY LIMITED, QCT INVESTMENT PTY LTD and OCT MINING PTY LTD as tenants in common in the interests of 3547/10000, 1333/10000, 861/10000, 75/10000, 300/10000, 850/10000, 256/10000, 1200/10000 and 1578/10000 respectively

Registered:

23 silomes 22 MAY 1990

Registrar of Dealings

SUBLEASE OF part

escribed holding in TOTAL ENERGY SYSTEMS LIMITED

terms Twenty (20) years, Nine(9) months on marking of March, 185

6 10142 MAY 1990 Sq. Wolney Registrat of Technos

BHP AUSTRALIA COAL LIMITED MITSUBISHI DEVELOPMENT PIY LTD AUSTALIAN MUTUAL PROVIDENT SOCIETY, UMAL CONSOLIDATED LIMITED, PANCONTINENTAL MINING LIMITED, UTAH QUEENSLAND COAL LIMITED, BOWEN BASHI MINERALS PROPRIETARY LIMITED, QCT INVESTMENT PIY LID and QC. MINING PIY LID as tenants in common in the interests of 3457/10000, 1333/10000, 861/10000, 75/10000, 300/10000, 850/10000, 256/10000, 1200/10000 and 1578/10000 respectively

REQUEST TO CHANGE NAME No. K923959L PRODUCED: 3 Feb 1992 REGISTERED:

18 FEB 1992

992 I lucland (2) Registrar of Titles

SCHEDULE HEREVNDER OF THE WITHINDESCRIBED HOLDING CONSECUENT UPON THE IDITEXCLUSION OF AN AREA.

Area: 20959-699h

Description: Lot 7 on CNS 144, Lot 9 CNS 3as, Lot 10 on CNS 123, lot 11 on CNS 394, Lot 13 on CNS, 102, Lot 14 on Gv 116 lot 18 on Gv 135 and Lot 47 on Gvaa6

DEALING No. 4194 2292 PRODUCED 17 SEP 1992

REGISTERED 24 SEP 1992 REGISTERED

... BHP Australia Coal Limited, Mitsubishi Development Pty Ltd, Australian Mutual Provident Society, Umal Consolidated Limited, Pancontinental Mining Limited, BHP Queensland Coal Limited,

Bowen Basin Minerals Proprietary Limited, QCT Investment Pty Ltd and QCT Mining Pty Ltd as tenants in common in the interests of 3547/10000, 1333/10000, 861/10000, 75/10000, 300/10000, 850/10000, 256/10000, 1200/10000, and 1578/10000 respectively are now the registered lessees of the within holding. REQUEST TO CHANGE NAME NO. L278413M PRODUCED 24 NOV 1992 19 DEC 1992 Saucional REGISTERED

> REGISTRAR OF TITLES BHP Australia Coal Limited, Mitsubishi Development Pty. Ltd., Australian Mutual Provident Society, Umal Consolidated Limited, BHP Queensland Coal Limited, Bowen Basin Minerals Proprietary Limited, QCT Investment Pty. Ltd., QCT Mining Pty. Ltd. and Pancontinental Coal Pty. Limited as tenants in common in the interests of 3547/10000, 1333/10000, 861/10000, 75/10000, 850/10000, 256/10000, 1200/10000, 1578/10000 and 300/10000 respectively are now the registered lessees of the withindescribed holding. TRANSFER No. L337600Y

PRODUCED 14 JAN 1993

REGISTERED

20 APR 1993 Move (1) REGISTRAR OF TITLES

Umal Crasallater Fr. Lt. BHP Hustralia Coal Limiter, Mitsublett Develorment for LT. Hustralian Muture Provident Society, BHP Queensland Coal Limiter, Bowen Basin. Minerals Proprieter Umiter, Sct. Investment PTY, LTO. SCT. Minister Fry Lto. and Pancon Sulental Coal Pty Loniter As Tenants in Common in the Interests of of the withindescribed bilding.

REQUEST TO CHANGE NAME No. 1885 757R PRODUCED 17MAR 1994 REGISTERED 15 APR REGISTRAR OF TITLES BHP AVSTRALIA COAL PTY LTD, MITSUBISHI DEVELOPMENT PTY LTP, AVSTRALIAN MUTUAL PROVIDENT, SOCIETY, UMAL CONSOL! PATEO PTY LTD, BHP QUEENSLAND COAL LIMITED BOWEN BASIN MINGRALS PROPRIETARY LIMITED OCT INVESTMENT PTY LTD, GCT MINING PTY LTO AND PANCONTINENTAL COAL PTY LIMITED, 45 TEN ANTS IN COMMON IN THE INTERESTS OF 3547/10000, 1333/10000, 861/10000, 75/10000, 8570/10000, 1578/10000 AND 300/10000 ARE NOW TO registered lessees of the withindescribed holding.

REQUEST TO CHANGE NAME No. L885760X PRODUCED 17 MAR1994 REGISTERED 15 APR 1994 REGISTRAZ OF TITLES

30575169 V0 See ATS for Status Page 1 of 2

CERTIFICATE OF TITLE

VOL:C 575 FOLIO:169

68476

Dealing No.: C540012X

Vol. C485 Fol. 136

Previous Title:

Vol. \$\infty\$ 575 Fol. 169

**QUEENSLAND** 

Issued: 12 October, 1987

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such easements encumbrances and interests as are shown in the Second Schedule.

Witness: DHowship

Acting Local Deputy Registral of Titles (Central District)

# ESTATE AND LAND

Estate in Fee Simple in Lot 4 on Registered Plan No. 616987 County of Grosvenor Parish of Moranbah Containing 58.25 hectares

# FIRST SCHEDULE

THOMAS VICTOR DEGUARA, VICTOR CHARLES DEGUARA and GERARD JAMES DEGUARA as tenants in common in equal shares

# SECOND SCHEDULE

- 1. Rights and interests reserved to the Crown by Deed of Grant Volume C478 Folios 104 and 105 (Por.20)
- Easement No. C416948 to Utah Development Company and Mitsubishi Development Pty Ltd over Easements A and B on Registered Plan No.614090 Produced 21 May 1981 Registered 3 July 1981
- 3. Mortgage No. C517928 to Westpac Banking Corporation Produced 4 June 1986 Registered 5 June 1986

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

M 2-Govt. Printer, Qld.

			FIRST SCHEDULE (continued)	nued)					6
By Plan Cat	No 616897	7 nant of th	REGISTERED PROPRIETOR	NATURE	INSTRUMENT PRODUCED		REGISTERED	Signature of Registrar of Titles	9 T
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			SECOND SCHEDULE (continued)	inued)					
	INSTRUMENT					CANCELLATION	NO		
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		_	NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR OF TITLES ARE CANCELLED.	OF THE REGISTRAF	OF TITLES ARE CANO	ELLED.			]

\* Dealings with this Lease will be Registered on the Original Lease only instead of on this Certificate of Title.

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 3830113

Search Date: 25/04/2008 18:01 Title Reference: 50559416

Date Created: 17/06/2005

Previous Title: 50236366

50236368

#### REGISTERED OWNER

Dealing No: 708722465 08/06/2005

BHP COAL PTY LTD A.C.N. 010 595 721

TRANSFER No 708722465

BHP COAL PTY LTD A.C.N. 010 595 721

Lodged at 14:21 on 08/06/2005

#### ESTATE AND LAND

Estate in Fee Simple

LOT 4 SURVEY PLAN 174999

County of GROSVENOR Parish of MORANBAH
County of CAIRNS Parish of WINCHESTER

Local Government: ISAAC

#### EASEMENTS, ENCUMBRANCES AND INTERESTS

1. CAVEAT NO 708722514
BHP COAL PTY LTD A.C.N. 010 595 721
BHP QUEENSLAND COAL INVESTMENTS PTY LTD A.C.N. 098 876 825
MITSUBISHI DEVELOPMENT PTY LTD A.C.N. 009 779 873
QCT RESOURCES PTY LTD A.C.N. 010 808 705
QCT INVESTMENT PTY LTD A.C.N. 010 487 831
QCT MINING PTY LTD A.C.N. 010 487 840
UMAL CONSOLIDATED PTY LTD A.C.N. 000 767 386
Lodged at 14:26 on 08/06/2005

- 2. EASEMENT No 702960290 benefiting the land over EASEMENT A ON SP111551 Lodged at 14:44 on 19/10/1998
- 3. Rights and interests reserved to the Crown by Deed of Grant No. 40016509 (Lot 6 on CP 906162)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 3830113

Search Date: 25/04/2008 18:01 Title Reference: 50559416

Date Created: 17/06/2005

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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Requested By: CITEC CONFIRM

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 5126959

Search Date: 20/10/2008 08:58 Title Reference: 30578011

Date Created: 19/02/1988

Previous Title: 30574181

REGISTERED OWNER

STEVEN THOMAS MURPHY

ESTATE AND LAND

Estate in Fee Simple

LOT 1 REGISTERED PLAN 616897

County of GROSVENOR Parish of MORANBAH

Local Government: ISAAC

For exclusions refer to Plan RP 616897

# EASEMENTS, ENCUMBRANCES AND INTERESTS

1. MORTGAGE No 711018676
 QRAA
 Lodged at 10:33 on 21/09/2007

2. TRANSFER No 703437096

EASEMENT IN GROSS: 601295847 (C543280L)

QUEENSLAND ELECTRICITY TRANSMISSION CORPORATION LIMITED

A.C.N. 078 849 233

Lodged at 07:42 on 07/07/1999

3. MORTGAGE No 601295849 (C634794F)

TO QUEENSLAND INDUSTRY DEVELOPMENT CORPORATION
Lodged at 00:00 on 22/01/1992

4. EASEMENT No 601295848 (C555446W)

BENEFITING THE LAND

OVER EASEMENT D ON RP620270

Lodged at 00:00 on 27/07/1988

5. EASEMENT IN GROSS No 601295847 (C543280L)

BURDENING THE LAND

TO QUEENSLAND ELECTRICITY COMMISSION

OVER EASEMENT C ON CPGV293

UNDER SECTION 285 OF THE LAND ACT

Lodged at 00:00 on 14/12/1987

6. SEC 147A NOTATION No 601083730 (147A)

THE PROVISIONS OF SECTION 147A OF THE LAND ACT 1962-1987 APPLY TO A TRANSFER OF THE WHOLE OR PART OF THE LAND

Lodged at 00:00 on 31/12/1984

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 5126959

Search Date: 20/10/2008 08:58 Title Reference: 30578011

Date Created: 19/02/1988

# EASEMENTS, ENCUMBRANCES AND INTERESTS

7. Rights and interests reserved to the Crown by Deed of Grant No. 30574181 (Lot 10 on CP GV303)

ADMINISTRATIVE ADVICES - NIL UNREGISTERED DEALINGS - NIL

# CERTIFICATE OF TITLE ISSUED - No

Caution - Charges do not necessarily appear in order of priority

\*\* End of Historical Title Search \*\*

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Requested By: CITEC CONFIRM

CAVAL RIDGE, CONTAMINATED LAND PRELIMINARY SITE INVESTIGATION

Appendix B EMR and CLR Search Results



#### SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988995

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

16 ON SP163605

This response relates to a search request received for the site:

Lot: 16

Plan: SP163605

PEAK DOWNS HIGHWAY

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988997

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

1 ON RP614378

This response relates to a search request received for the site:

Lot: 1

Plan: RP614378

MORANBAH ACCESS ROAD

MORANBAH 4774

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

, Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988998

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

37 ON GV179

This response relates to a search request received for the site:

Lot: 37

Plan: GV179

MORANBAH ACCESS ROAD

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988999

EMR Site Id:

17 October 2007

Cheque Number:

\_

Client Reference:

14 ON SP163605

This response relates to a search request received for the site:

Lot: 14

Plan: SP163605

MORANBAH ACCESS ROAD

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# CLR RESULT

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE OUEENSLAND 4001

Transaction ID:

989001

EMR Site Id:

17 October 2007

Cheque Number:

\_

Client Reference:

4 ON RP884695

This response relates to a search request received for the site:

Lot: 4

Plan: RP884695

PEAK DOWNS HIGHWAY

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989003

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

7 ON RP615467

This response relates to a search request received for the site:

Lot: 7

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989006

EMR Site Id:

17 October 2007

Cheque Number:

\_

Client Reference:

8 ON RP615467

This response relates to a search request received for the site:

Lot: 8

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989008

EMR Site Id:

17 October 2007

Cheque Number:

er:

Client Reference:

9 ON RP615467

This response relates to a search request received for the site:

Lot: 9

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989010

EMR Site Id:

17 October 2007

Cheque Number:

umber.

Client Reference:

10 ON RP615467

This response relates to a search request received for the site:

Lot: 10

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# CLR RESULT

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989012

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

13 ON GV225

This response relates to a search request received for the site:

Lot: 13

Plan: GV225

PEAK DOWNS HIGHWAY

MORANBAH 4744

### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bower

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE OUEENSLAND 4001

Transaction ID:

989014

EMR Site Id: 30786

17 October 2007

Client Reference:

14 ON GV116

Cheque Number:

1.01

This response relates to a search request received for the site:

Lot: 14

Plan: GV116

#### **EMR RESULT**

The above site IS included on the Environmental Management Register.

Lot: 14

Plan: GV116

Address:

PEAK DOWNS HIGHWAY

MORANBAH 4744

The site has been subject to the following Notifiable Activity pursuant to section 374 of the *Environmental Protection Act 1994*.

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

- (a) in underground tanks with more than 200L capacity; or
- (b) in above ground tanks with -
- (i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code more than 2, 500L capacity; or
- (ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code more than 5, 000L capacity; or
- (iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia more than 25, 000L capacity.

# CLR RESULT

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

PUL Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE OUEENSLAND 4001

Transaction ID:

989017

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

47 ON GV226

This response relates to a search request received for the site:

Lot: 47

Plan: GV226

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29,30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 **BRISBANE** QUEENSLAND 4001

Transaction ID:

989020

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

13 ON SP151669

This response relates to a search request received for the site:

Lot: 13

Plan: SP151669 PEAK DOWNS HIGHWAY

MORANBAH 4744

# EMR RESULT

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

# **QLD ENVIRONMENTAL PROTECTION AGENCY**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 1044645 EMR Site Id: 30787 25 April 2008

This response relates to a search request received for the site:

Lot: 18 Plan: GV135

# **EMR RESULT**

The above site IS included on the Environmental Management Register.

Lot: 18 Plan: GV135 Address: WINCHESTER ROAD MORANBAH 4744

The site has been subject to the following Notifiable Activity pursuant to section 374 of the *Environmental Protection Act 1994.* 

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

- (a) in underground tanks with more than 200L capacity; or
- (b) in above ground tanks with -
- (i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code more than 2, 500L capacity; or
- (ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code more than 5, 000L capacity; or
- (iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia more than 25, 000L capacity.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

#### ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au.

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

Registrar, Contaminated Land Unit

1 of 2 25/04/2008 5:41 PM



# **Search Receipt**

Date/Time (AEST) 25-Apr-2008 05:41:02 PM

Account DAMO

**User Name** 

Your Reference 42626158.20602

CONFIRM Reference 20692762

Transaction QLD Contaminated Sites

Extract

Search Criteria 18 / GV135

Value \$41.78 GST \$0.58

Price \$42.36

2 of 2 25/04/2008 5:41 PM

#### SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988995

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

16 ON SP163605

This response relates to a search request received for the site:

Lot: 16

Plan: SP163605

PEAK DOWNS HIGHWAY

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988997

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

1 ON RP614378

This response relates to a search request received for the site:

Lot: 1

Plan: RP614378

MORANBAH ACCESS ROAD

MORANBAH 4774

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

, Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

988998

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

37 ON GV179

This response relates to a search request received for the site:

Lot: 37

Plan: GV179

MORANBAH ACCESS ROAD

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 **BRISBANE** QUEENSLAND -4001

Transaction ID:

988999

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

14 ON SP163605

This response relates to a search request received for the site:

Plan: SP163605

MORANBAH ACCESS ROAD

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# CLR RESULT

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE OUEENSLAND 4001

Transaction ID:

989001

EMR Site Id:

17 October 2007

Cheque Number:

.

Client Reference:

4 ON RP884695

This response relates to a search request received for the site:

Lot: 4

Plan: RP884695

PEAK DOWNS HIGHWAY

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989003

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

7 ON RP615467

This response relates to a search request received for the site:

Lot: 7

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989006

EMR Site Id:

17 October 2007

Cheque Number:

\_

Client Reference:

8 ON RP615467

This response relates to a search request received for the site:

Lot: 8

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989008

EMR Site Id:

17 October 2007

Cheque Number:

er:

Client Reference:

9 ON RP615467

This response relates to a search request received for the site:

Lot: 9

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989010

EMR Site Id:

17 October 2007

Cheque Number:

umber.

Client Reference:

10 ON RP615467

This response relates to a search request received for the site:

Lot: 10

Plan: RP615467

PEAK DOWNS HIGHWAY

MORANBAH 4744

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# CLR RESULT

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE QUEENSLAND 4001

Transaction ID:

989012

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

13 ON GV225

This response relates to a search request received for the site:

Lot: 13

Plan: GV225

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bower

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE OUEENSLAND 4001

Transaction ID:

989014

EMR Site Id: 30786

17 October 2007

Client Reference:

14 ON GV116

Cheque Number:

1.01

This response relates to a search request received for the site:

Lot: 14

Plan: GV116

#### **EMR RESULT**

The above site IS included on the Environmental Management Register.

Lot: 14

Plan: GV116

Address:

PEAK DOWNS HIGHWAY

MORANBAH 4744

The site has been subject to the following Notifiable Activity pursuant to section 374 of the *Environmental Protection Act 1994*.

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

- (a) in underground tanks with more than 200L capacity; or
- (b) in above ground tanks with -
- (i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code more than 2, 500L capacity; or
- (ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code more than 5, 000L capacity; or
- (iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia more than 25, 000L capacity.

# CLR RESULT

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

PUL Lindi Bowen

# **SEARCH RESPONSE**

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 BRISBANE OUEENSLAND 4001

Transaction ID:

989017

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

47 ON GV226

This response relates to a search request received for the site:

Lot: 47

Plan: GV226

PEAK DOWNS HIGHWAY

MORANBAH 4744

#### **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29,30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

# SEARCH RESPONSE

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

BELINDA STRACHOTTA (URS) GPO BOX 302 **BRISBANE** QUEENSLAND 4001

Transaction ID:

989020

EMR Site Id:

17 October 2007

Cheque Number:

Client Reference:

13 ON SP151669

This response relates to a search request received for the site:

Lot: 13

Plan: SP151669 PEAK DOWNS HIGHWAY

MORANBAH 4744

# EMR RESULT

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au. \*\*\*\*\* CULTURAL HERITAGE SEARCHES: will be available at www.smartservice.qld.gov.au from 05/11/07 for \$29.30 per lot/plan \*\*\*\*\*

If you have any queries in relation to this search please phone (07) 3227 7370.

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 1044645 EMR Site Id: 30787 25 April 2008

This response relates to a search request received for the site:

Lot: 18 Plan: GV135

# **EMR RESULT**

The above site IS included on the Environmental Management Register.

Lot: 18 Plan: GV135 Address: WINCHESTER ROAD MORANBAH 4744

The site has been subject to the following Notifiable Activity pursuant to section 374 of the *Environmental Protection Act 1994.* 

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil -

- (a) in underground tanks with more than 200L capacity; or
- (b) in above ground tanks with -
- (i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code more than 2, 500L capacity; or
- (ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code more than 5, 000L capacity; or
- (iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia more than 25, 000L capacity.

#### **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

#### ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au.

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

Registrar, Contaminated Land Unit

1 of 2 25/04/2008 5:41 PM

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 1044644 EMR Site Id: 25 April 2008

This response relates to a search request received for the site:

Lot: 4 Plan: SP174999

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# **ADDITIONAL ADVICE**

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au.

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

**Registrar, Contaminated Land Unit** 

1 of 2 25/04/2008 5:15 PM

# ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 1086008 EMR Site Id:

20 October 2008

This response relates to a search request received for the site:

Lot: 1 Plan: RP616897

# **EMR RESULT**

The above site is NOT included on the Environmental Management Register.

# **CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

# **ADDITIONAL ADVICE**

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au.

If you have any queries in relation to this search please phone (07) 3227 7370.

1 of 3 20/10/2008 9:08 AM

# Lindi Bowen **Registrar, Contaminated Land Unit**

2 of 3 20/10/2008 9:08 AM

ENVIRONMENTAL MANAGEMENT REGISTER (EMR) CONTAMINATED LAND REGISTER (CLR)

Transaction ID: 1086011 EMR Site Id: 33445 20 October 2008

This response relates to a search request received for the site:

Plan: SP137499

**EMR RESULT** 

The above site IS included on the Environmental Management Register. Lot: 10 Plan: SP137499 Address: DYSART ROAD

DYSART QLD

The site has been subject to the following Notifiable Activity pursuant to section 374 of the *Environmental Protection Act* 1994. CHEMICAL MANUFACTURE OR FORMULATION - manufacturing, blending, mixing or formulating chemicals if - (a) the chemicals are designated dangerous goods under the dangerous goods

(b) the facility used to manufacture, blend, mix or formulate the chemicals has a design production capacity of more than 1 t per week.

CHEMICAL STORAGE - (other than petroleum products or oil under item 29) - storing more than 10 t of chemicals (other than compressed or liquefied gases) that are dangerous goods under the dangerous goods code.

EXPLOSIVES PRODUCTION OR STORAGE - operating a factory under the Explosives Act 1952.

WASTE STORAGE - operating a ractory under the explosives Act 1952.

WASTE STORAGE, TREATMENT OR DISPOSAL - storing, treating, reprocessing or disposing of regulated waste (other than at the place it is generated), including operating a nightsoil disposal site or sewage treatment plant where the site or plant has a design capacity that is more than the equivalent of 50, 000 persons having sludge drying beds or on-site disposal facilities.

PETROLEUM PRODUCT OR OIL STORAGE - storing petroleum products or oil 
(a) in underground tanks with more than 200L capacity; or

(b) in above ground tanks with (i) for petroleum products or oil in class 3 in packaging groups 1 and 2 of the dangerous goods code - more than 2, 500L capacity; or

(ii) for petroleum products or oil in class 3 in packaging groups 3 of the dangerous goods code - more than 5, 000L capacity; or (iii) for petroleum products that are combustible liquids in class C1 or C2 in Australian Standard AS1940, 'The storage and handling of flammable and combustible liquids' published by Standards Australia - more than 25, 000L capacity.

MINE WASTES -

(a) storing hazardous mine or exploration wastes, including, for example, tailings dams, overburden or waste rock dumps containing hazardous contaminants; or

(b) exploring for, or mining or processing, minerals in a way that exposes faces, or releases groundwater, containing hazardous contaminants

While sites are listed on the EMR using the lot and plan description, a mining lease may affect only a limited area of the lot. In many instances with rural properties, only a small area may be potentially affected by the mining activities and the ongoing landuse is unaffected. More detailed information relating to the location of the mining activities may be held by the EPA or the Department of Natural Resources and Mines.

#### CLR RESULT

The above site is NOT included on the Contaminated Land Register.

#### ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au.

If you have any gueries in relation to this search please phone (07) 3227 7370.

Lindi Bowen

CAVAL RIDGE, CONTAMINATED LAND PRELIMINARY SITE INVESTIGATION

Appendix C Laboratory Results



# **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES



# **Environmental Division**

# **CERTIFICATE OF ANALYSIS**

Work Order : **EB0803692** Page : 1 of 6

Client : URS AUSTRALIA PTY LTD (QLD) Laboratory : Environmental Division Brisbane

Contact : MR DALE GOULD Contact : Tim Kilmister

Address : GPO BOX 302 Address : 32 Shand Street Stafford QLD Australia 4053

BRISBANE QLD, AUSTRALIA 4001

 Telephone
 : 32432111
 Telephone
 : +61-7-3243 7222

 Facsimile
 : 32432199
 Facsimile
 : +61-7-3243 7218

Project : 42626158 QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Order number : ----

C-O-C number : ---- Date Samples Received : 20-MAR-2008
Sampler : Dale Gould Issue Date : 01-APR-2008

Site :----

Quote number : EN/001/08 No. of samples analysed : 5

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

No. of samples received

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

: 5

Signatories	Position	Accreditation Category
Carsten Emrich	Senior Organic Chemist	Inorganics
Carsten Emrich	Senior Organic Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics

Environmental Division Brisbane
Part of the ALS Laboratory Group

32 Shand Street Stafford QLD Australia 4053

Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company

Page : 2 of 6
Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



#### **General Comments**

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been preformed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key: CAS Number = Chemistry Abstract Services number

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

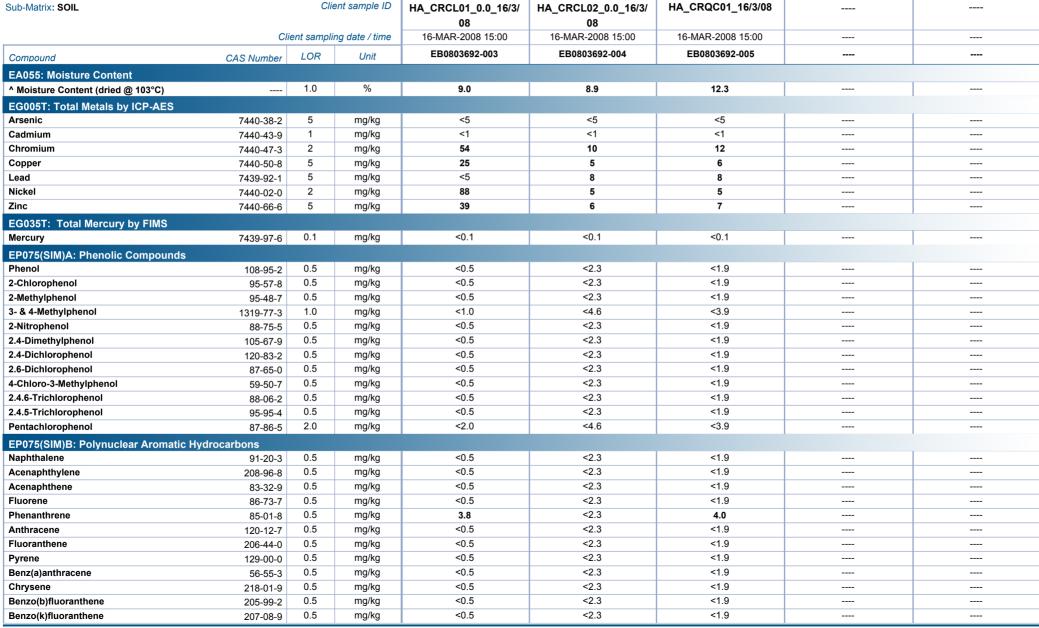
- EG005T (Total Metals): EB0803650-058 matrix spike failed due to sample matrix interference.
- EG005T (Total Metals): EB0803809-003 duplicate failed due to sample heterogeneity.
- PAH/Phenols: Samples [HA\_CRCL02\_0.0\_10/3/08] and [HA\_CRQC01\_16/3/08] required dilution prior to analysis due to matrix interferences. LOR values have been adjusted accordingly.
   Surrogate recovery not determined.

Page : 3 of 6
Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# **Analytical Results**



Page : 4 of 6 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# Analytical Results



Sub-Matrix: <b>SOIL</b>		Cli	ent sample ID	HA_CRCL01_0.0_16/3/ 08	HA_CRCL02_0.0_16/3/ 08	HA_CRQC01_16/3/08	 
	Cli	ent sampli	ing date / time	16-MAR-2008 15:00	16-MAR-2008 15:00	16-MAR-2008 15:00	 
Compound	CAS Number	LOR	Unit	EB0803692-003	EB0803692-004	EB0803692-005	 
EP075(SIM)B: Polynuclear Aroma	tic Hydrocarbons - Conti	inued					
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<2.3	<1.9	 
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<2.3	<1.9	 
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<2.3	<1.9	 
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<2.3	<1.9	 
EP080/071: Total Petroleum Hydro	ocarbons						
C6 - C9 Fraction		10	mg/kg	<10	<10	<10	 
C10 - C14 Fraction		50	mg/kg	350	4390	3730	 
C15 - C28 Fraction		100	mg/kg	38900	30100	29600	 
C29 - C36 Fraction		100	mg/kg	810	170	170	 
EP080: BTEX							
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	 
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	 
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	 
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	 
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	 
EP075(SIM)S: Phenolic Compound	d Surrogates						
Phenol-d6	13127-88-3	0.1	%	72.7	51.7	51.0	 
2-Chlorophenol-D4	93951-73-6	0.1	%	78.1	54.0	67.0	 
2.4.6-Tribromophenol	118-79-6	0.1	%	75.7	Not Determined	Not Determined	 
EP075(SIM)T: PAH Surrogates							
2-Fluorobiphenyl	321-60-8	0.1	%	106	86.7	105	 
Anthracene-d10	1719-06-8	0.1	%	83.0	98.4	Not Determined	 
4-Terphenyl-d14	1718-51-0	0.1	%	70.5	73.9	73.5	 
EP080S: TPH(V)/BTEX Surrogates							
1.2-Dichloroethane-D4	17060-07-0	0.1	%	174	124	123	 
Toluene-D8	2037-26-5	0.1	%	135	103	95.4	 
4-Bromofluorobenzene	460-00-4	0.1	%	137	102	98.4	 

Page : 5 of 6 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# ALS

# Analytical Results

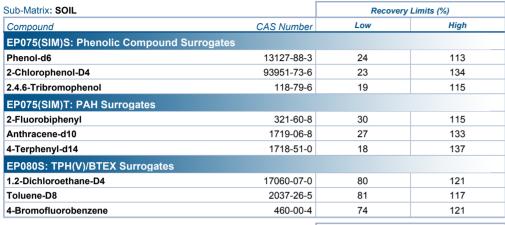
Sub-Matrix: WATER		Clie	ent sample ID	TB_01_16/03/08_CR	R01_16/03/08_CR	 	
	CI	lient sampli	ng date / time	16-MAR-2008 15:00	16-MAR-2008 15:00	 	
Compound	CAS Number	LOR	Unit	EB0803692-001	EB0803692-002	 	
EG020T: Total Metals by ICP-MS							
Arsenic	7440-38-2	0.001	mg/L		<0.001	 	
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	 	
Chromium	7440-47-3	0.001	mg/L		<0.001	 	
Copper	7440-50-8	0.001	mg/L		0.004	 	
Lead	7439-92-1	0.001	mg/L		<0.001	 	
Nickel	7440-02-0	0.001	mg/L		<0.001	 	
Zinc	7440-66-6	0.005	mg/L		<0.005	 	
EG035T: Total Mercury by FIMS							
Mercury	7439-97-6	0.0001	mg/L		<0.0001	 	
EP080/071: Total Petroleum Hydroca	arbons						
C6 - C9 Fraction		20	μg/L	<20	<20	 	
C10 - C14 Fraction		50	μg/L		<50	 	
C15 - C28 Fraction		100	μg/L		<100	 	
C29 - C36 Fraction		50	μg/L		<50	 	
EP080: BTEX							
Benzene	71-43-2	1	μg/L	<1	<1	 	
Toluene	108-88-3	2	μg/L	<2	<2	 	
Ethylbenzene	100-41-4	2	μg/L	<2	<2	 	
meta- & para-Xylene	108-38-3 106-42-3	2	μg/L	<2	<2	 	
ortho-Xylene	95-47-6	2	μg/L	<2	<2	 	
EP080S: TPH(V)/BTEX Surrogates							
1.2-Dichloroethane-D4	17060-07-0	0.1	%	104	105	 	
Toluene-D8	2037-26-5	0.1	%	96.1	98.3	 	
4-Bromofluorobenzene	460-00-4	0.1	%	98.5	100	 	

Page : 6 of 6 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# **Surrogate Control Limits**



Sub-Matrix: WATER		Recovery Limits (%)				
Compound	CAS Number	Low	High			
EP080S: TPH(V)/BTEX Surrogates						
1.2-Dichloroethane-D4	17060-07-0	80	120			
Toluene-D8	2037-26-5	88	110			
4-Bromofluorobenzene	460-00-4	86	115			



CHAIN	OF	CUST	ODY	FORM
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Sheet | of /

THIS COLUMN FOR LAB USE ONLY	FROM:			DATE:	TO: ALS Environne	te./		1		Size, Type, and Analys	Preservativo	9	
****	URS (AUS	STRALIA)			32 Shand st					ainer Identif			
	ACN 000 6												
Job Code:	Insert you	r oπice add	ress nere	- <b>L</b> -	Stalled 405?	Size Type*							
	Brishe	, 240	equeen See solal	st D Fax: 32432199	QLD	Preservative				1	<del> </del>		
	Ph: 32	4321	`	Fax: 32432199		Code							
Due Date:	Project No:	4262	6158	Sampler(s): Dale Good				୍ଦ					
				Signature(s):			し火	3 7	,	\$18.			
	Project Man	Bar	rereft			Analytes	7 PH	7 4	TPY BTEX				
	Agreement i	No:		Checked:		_	F 54	12 1	الم م	10 has			
Custody seal intact?	Released	for URS b	y:	Received for I	Laboratory by: J-FABRY Time: 11-35			A, Cd, N, 76,	7 60	9			
YES NO	*			That sty AL		+	ا کی	9 5	۱ ـ	×			
Sample cold?	Date:		Time:	Date:	Time: //-35		204	& Z	04	0 A H			
YES NO				10/3/08	5		ک ا	Q 5	N N	\ \alpha_{\alpha}			
Lab identification	Date	Time	Matrix	Sample Number	Comments	Total no	Tick require	ed analytes					
1	16/05/08	16.00	Sunter	TB-01-16/00/08-CR			_	AND					
2	,	16,00	water	1201-16/63/08_CR				/			Env	/ironment	al Division
				3/								Brisba	
3		0500	501	HABICACLOI-0.0- W	12/08					/	M	Work C	
$\vec{\psi}$		0400	Soil	44-CRCL02-0.0-16						/			
<del> </del>		0700	Soil		<del></del>				_			DUOL	)3692
		000	300	WA-CRQCO1_16/3/			-				10.1001.00	   <b>                                   </b>	
Extra Sample 6				HA-CECLO1-0.0-16,	3.108					<u> </u>			
					* .		*			<u> </u>			
										<u> </u>	111 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		,									Teleph	none: +61	-7-3243 7222
	4	`.										I	
* .	٧												
Remarks: Send o	enlts	to	Dale-92	MAC URSCO-P.COM									
		2	Chris -	morrison@ URSCORP.CO.	<u> TOTAL</u>								
	* Containe	r Type and	Preservative	P = Neutral Plastic; N = Nitric At Vial; VS = Sulfuric Acid Preserved Vial;	Acid Preserved; C = Sodium Hydroxide	Preserved;	J = Solvent \	Vashed Acid	Rinsed Jai	r; S = Solver	nt Washed A	cid Rinsed C	Blass Bottle;
	VC – Hydi	OCHIONE AC	du Preserveu	o viai, vo – Sullunc Acid Preserved viai,	BS - Sullulic Acid Preserved Glass B	ottie, Z – Zin	c Acetate Pr	eserveu dou	lie, E – EDI	A Pieseive	bottles; S1	= Sterile Bo	ttie
Courier Job No:	Specify T	urnaround	Time:				1	IOTE: SAMI	PLES MAY	CONTAIN D	ANGEROUS	<del> </del>	
	•									JS SUBSTA			
											-4.		

CHAIN OF CUSTODY FORM

Sheet 1 of /

THIS COLUMN FOR LAB USE ONLY	FROM:			DATE:	TO: ALS Environne	te./				and Analys		)	
	URS (AU ACN 000	STRALIA)			32 Shand st				Cont	tainer Identif T	ication T		
Job Code:		66:	dress here Queen 980 @ 6	st D Fax: 32432199 Sampler(s): Date Gould	Stallard 405? QLD	Size Type* Preservative Code							
Due Date:	Project No	4262	6158	Sampler(s): Dale Gould	, ***			.c.					
	l	nager: C		Signature(s):  Checked:		Analytes	101 1810 1810 1810 1810	7, C. Z. + FS	TRY BTEX	/phenols.		7 // 3	
YES NO	Released	for URS b	y: Time:	Received for AL.	Laboratory by: J-FABRY Time: //-35	<u> </u> 	W.04	A, Cd, C	0,4	04 H /0		e e e e e e e e e e e e e e e e e e e	
YES NO		_	·	1 20/3/0	8		ح	9 -	N	<u> </u>			
Lab Identification	Date	Time	Matrix	Sample Number	Comments	Total no	Tick require			Т			
	16/05/00	16.00	Swater	TB-01-16/08/08-CR				MAN			1	. 1	l
2	1	16,00	water	1201-16/63/08_CR							Enν		al Division
				,							M	Brisba	
3		0500	50'(	HABICACLOI-0.0-	4/3/08			_			100	Work O	rder
4		0400	Soil	HA-CRCL02-0.0-16				/	/	/	E	B080	3692
5		oro	Soil	WA-CRQC 01_16/3/	0E			_	-				
Extra Suple 6				HA-CECLO! O.O. Is	13/08								
The state of the s													
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	1										• • • • • • • •		
	<b>V</b>												
Remarks: Send n	esult	h	Dale-97 Chris-	MACCOS P = Neutral Plastic; N = Nitric	TOTAL								
	* Contain VC = Hyc	er Type and Irochloric A	d Preservative cid Preserved	e Codes: P = Neutral Plastic; N = Nitric   Vial; VS = Sulfuric Acid Preserved Vial	Acid Preserved; C = Sodium Hydroxide; BS = Sulfuric Acid Preserved Glass E	e Preserved; . Bottle; Z = Zind	J = Solvent \ c Acetate Pr	Vashed Aci eserved Bot	d Rinsed Ja tle; E = EDT	r; S = Solver A Preserve	nt Washed Ad I Bottles; ST	cid Rinsed G = Sterile Bot	lass Bottle; tle
Courier Job No:	Specify 1	Turnaround	i Time:				1			CONTAIN D JS SUBSTA	ANGEROUS NCES		

# **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES



# **Environmental Division**

# **QUALITY CONTROL REPORT**

: EB0803692 **Work Order** Page : 1 of 11

: Environmental Division Brisbane Client : URS AUSTRALIA PTY LTD (QLD) Laboratory

Contact : MR DALE GOULD Contact : Tim Kilmister

Address : GPO BOX 302 Address : 32 Shand Street Stafford QLD Australia 4053

E-mail : dale\_gould@urscorp.com E-mail : Services.Brisbane@alsenviro.com

Telephone : 32432111 Telephone : +61-7-3243 7222 Facsimile Facsimile : 32432199 : +61-7-3243 7218

Project : 42626158 QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Site C-O-C number

**Date Samples Received** : 20-MAR-2008 Sampler : Dale Gould Issue Date : 01-APR-2008

Order number

No. of samples received : 5 Quote number No. of samples analysed : EN/001/08 : 5

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. This Quality Control Report contains the following information:

Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits

BRISBANE QLD. AUSTRALIA 4001

- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

# Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Carsten Emrich Carsten Emrich	Senior Organic Chemist Senior Organic Chemist	Inorganics Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics

**Environmental Division Brisbane** Part of the ALS Laboratory Group

32 Shand Street Stafford QLD Australia 4053 Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com

A Campbell Brothers Limited Company

Page : 2 of 11 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# ALS

#### General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been preformed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key: Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = Chemistry Abstract Services number

LOR = Limit of reporting

RPD = Relative Percentage Difference

# = Indicates failed QC

Page : 3 of 11 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: <b>SOIL</b>						Laboratory I	Duplicate (DUP) Repor	t	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%
A055: Moisture Co	ontent (QC Lot: 619796	)							
EB0803650-144	Anonymous	EA055-103: Moisture Content (dried @ 103°C)		1.0	%	Anonymous	Anonymous	Anonymous	Anonymous
G005T: Total Meta	Is by ICP-AES (QC Lot	: 620673)							
EB0803650-056	Anonymous	EG005T: Arsenic	7440-38-2	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Cadmium	7440-43-9	1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Chromium	7440-47-3	2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Copper	7440-50-8	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Lead	7439-92-1	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Nickel	7440-02-0	2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Zinc	7440-66-6	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB0803809-003	Anonymous	EG005T: Arsenic	7440-38-2	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Cadmium	7440-43-9	1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Chromium	7440-47-3	2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Copper	7440-50-8	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Lead	7439-92-1	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Nickel	7440-02-0	2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EG005T: Zinc	7440-66-6	5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
G035T: Total Mare	cury by FIMS (QC Lot:				3 3	, ,	. ,	, , , , , ,	,
B0803650-056	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB0803809-003	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
	olic Compounds (QC L	· ·	1 100 01 0	0.1	mg/kg	7 thoriyinouo	7 thoriyinodo	7 thoriyinious	7 tilonymodo
EB0803651-010	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	ma/ka	Anonymous	Anonymous	Anonymous	Anonymous
_D0003031-010	Anonymous	` '	95-57-8	0.5	mg/kg	Anonymous	Anonymous	-	-
		EP075(SIM): 2-Chlorophenol EP075(SIM): 2-Methylphenol	95-57-6	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2- Wethylphenol	1319-77-3	1.0	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		, , , , , , , , , , , , , , , , , , , ,	88-75-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Nitrophenol			mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dimethylphenol	105-67-9 120-83-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dichlorophenol			mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
-D00000F4 000	A	EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EB0803651-020	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous

Page : 4 of 11 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)



Sub-Matrix: SOIL						Laboratory I	Duplicate (DUP) Repor	t	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)A: Pheno	olic Compounds (QC	Lot: 621923) - continued							
EB0803651-020	Anonymous	EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP075(SIM)B: Polyn	uclear Aromatic Hydro	ocarbons (QC Lot: 621923)							•
EB0803651-010	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Be1120(a)pyrene EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5		-	-	-	•
		, , , , , , , , , , , , , , , , , , , ,	53-70-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Dibenz(a.h)anthracene	191-24-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
B0803651-020	Ananymaya	EP075(SIM): Benzo(g.h.i)perylene			mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
:00003031-020	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acceptable and EP075(SIM): Acceptabl	208-96-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
	troleum Hydrocarbons								
EB0803692-003	HA_CRCL01_0.0_16/3	3/08 EP080: C6 - C9 Fraction		10	mg/kg	<10	<10	0.0	No Limit
EB0803737-001	Anonymous	EP080: C6 - C9 Fraction		10	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
	troleum Hydrocarbons	s (QC Lot: 621922)							
EB0803651-010	Anonymous	EP071: C10 - C14 Fraction		50	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C15 - C28 Fraction		100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C29 - C36 Fraction		100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous

Page : 5 of 11 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)



Sub-Matrix: SOIL						Laboratory L	Ouplicate (DUP) Report	t	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Pet	troleum Hydrocarbons (QC	Lot: 621922) - continued							
EB0803651-020	Anonymous	EP071: C10 - C14 Fraction		50	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C15 - C28 Fraction		100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C29 - C36 Fraction		100	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
EP080: BTEX (QC L	ot: 620520)								
EB0803692-003	HA_CRCL01_0.0_16/3/08	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		·	106-42-3						
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EB0803737-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Toluene	108-88-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
			106-42-3					_	_
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	Anonymous	Anonymous	Anonymous	Anonymous
Sub-Matrix: WATER							Duplicate (DUP) Repor		
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metal	s by ICP-MS (QC Lot: 6205	40)							
EB0803527-001	Anonymous	EG020A-T: Arsenic	7440-38-2	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-T: Chromium	7440-47-3	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-T: Copper	7440-50-8	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-T: Lead	7439-92-1	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EG020A-T: Nickel	7440-02-0	0.001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
EG035T: Total Merc	eury by FIMS (QC Lot: 6242	59)							
EB0803680-015	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB0803680-025	Anonymous	EG035T: Mercury	7439-97-6	0.0001	mg/L	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Pet	troleum Hydrocarbons (QC	Lot: 619199)							
EB0803689-001	Anonymous	EP071: C10 - C14 Fraction		50	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C15 - C28 Fraction		100	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP071: C29 - C36 Fraction		50	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Pet	troleum Hydrocarbons (QC	Lot: 620245)							
EB0803646-001	Anonymous	EP080: C6 - C9 Fraction		20	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB0803687-004	Anonymous	EP080: C6 - C9 Fraction		20	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
EP080: BTEX (QC L	ot: 620245)				. 0			j	,
EB0803646-001	Anonymous	EP080: Benzene	71-43-2	1	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
	,	EP080: Toluene	108-88-3	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Ethylbenzene	100-41-4	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: meta- & para-Xylene	108-38-3	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
		, , , , , , , , , , , , , , , , , , ,	106-42-3		F 3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,	,	. ,
		EP080: ortho-Xylene	95-47-6	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
EB0803687-004	Anonymous	EP080: Benzene	71-43-2	1	μg/L	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Toluene	108-88-3	2	μg/L	Anonymous	Anonymous		

Page : 6 of 11 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)



Sub-Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)		
EP080: BTEX (QC L	ot: 620245) - continued										
EB0803687-004	Anonymous	EP080: Ethylbenzene	100-41-4	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous		
		EP080: meta- & para-Xylene	108-38-3	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous		
			106-42-3								
		EP080: ortho-Xylene	95-47-6	2	μg/L	Anonymous	Anonymous	Anonymous	Anonymous		

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Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



# Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL				Method Blank (MB)	Laboratory Control Spike (LCS) Report				
				Report	Spike	Spike Recovery (%)	Recovery	Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High	
EG005T: Total Metals by ICP-AES (QCLot: 6206	573)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.8 mg/kg	105	81.1	117	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.82 mg/kg	106	81.5	112	
EG005T: Chromium	7440-47-3	2	mg/kg	<2	61.6 mg/kg	108	91.2	115	
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.7 mg/kg	109	93	119	
EG005T: Lead	7439-92-1	5	mg/kg	<5	55.5 mg/kg	108	86.1	113	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.1 mg/kg	111	91.4	117	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	105 mg/kg	111	87.6	118	
EG035T: Total Mercury by FIMS (QCLot: 62067	(4)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1					
		0.10	mg/kg		1.34 mg/kg	104	79	129	
EP075(SIM)A: Phenolic Compounds (QCLot: 62	21923)				Ü				
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	5.0 mg/kg	98.7	61	119	
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	5.0 mg/kg	97.9	63	117	
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	5.0 mg/kg	101	62	119	
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	10 mg/kg	99.3	57	120	
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	5.0 mg/kg	96.2	49	125	
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	5.0 mg/kg	92.2	58	116	
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	5.0 mg/kg	102	58	116	
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	5.0 mg/kg	98.2	59	119	
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	5.0 mg/kg	95.0	61	121	
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	5.0 mg/kg	102	55	116	
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	5.0 mg/kg	105	53	116	
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2.0	10 mg/kg	81.5	41	137	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbo	ons (QCLot: 621923)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	5.0 mg/kg	104	66	114	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	5.0 mg/kg	113	63	113	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	5.0 mg/kg	100	65	114	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	5.0 mg/kg	103	65	111	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	5.0 mg/kg	98.9	60	112	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	5.0 mg/kg	96.3	65	110	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	5.0 mg/kg	104	64	111	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	5.0 mg/kg	100	64	111	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	5.0 mg/kg	104	61	115	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	5.0 mg/kg	96.0	57	114	
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	5.0 mg/kg	106	46	124	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	5.0 mg/kg	101	48	124	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	5.0 mg/kg	97.6	55	116	

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Client : URS AUSTRALIA PTY LTD (QLD)



Sub-Matrix: SOIL				Method Blank (MB)	Laboratory Control Spike (LCS) Report			
				Report	Spike	Spike Recovery (%)	Recovery	Limits (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLo	ot: 621923) - con	tinued						
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	5.0 mg/kg	112	52	130
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	5.0 mg/kg	110	54	129
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	5.0 mg/kg	105	52	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 62052	0)							
EP080: C6 - C9 Fraction		10	mg/kg	<10	26 mg/kg	99.2	71	123
EP080/071: Total Petroleum Hydrocarbons(QCLot: 62192	2)							
EP071: C10 - C14 Fraction		50	mg/kg	<50	237 mg/kg	96.9	67.9	112
EP071: C15 - C28 Fraction		100	mg/kg	<100	459 mg/kg	112	76.2	117
EP071: C29 - C36 Fraction		100	mg/kg	<100				
EP080: BTEX (QCLot: 620520)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	98.5	78	121
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	99.2	78	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	90.8	72	119
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	1 mg/kg	88.4	68	121
	106-42-3							
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	91.4	70	118
Sub-Matrix: WATER				Method Blank (MB)		Laboratory Control Spike (LC	S) Report	
Out Matrix. WATER				Report	Spike	Spike Recovery (%)	· · ·	Limits (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 620540)								
EG020A-T: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1000 mg/L	90.5	70	116
EG020A-T: Cadmium	7440-43-9	0.0001	mg/L	<0.001	0.1000 mg/L	97.9	78.3	114
EG020A-T: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1000 mg/L	104	76.2	130
EG020A-T: Copper	7440-50-8	0.001	mg/L	<0.001	0.200 mg/L	98.3	83.1	122
EG020A-T: Lead	7439-92-1	0.001	mg/L	<0.001	0.1000 mg/L	95.5	83.3	117
EG020A-T: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1000 mg/L	98.3	81.1	119
EG020T: Total Metals by ICP-MS (QCLot: 622217)								
EG020A-T: Zinc	7440-66-6	0.005	mg/L	<0.005	0.200 mg/L	102	80.1	126
EG035T: Total Mercury by FIMS (QCLot: 624259)			g		0.2003.2			
EG035T: Nercury	7439-97-6	0.0001	mg/L	<0.0001	0.0100 mg/L	92.6	76.3	128
		0.0001	IIIg/L	40.0001	0.0100 Hig/L	92.0	70.5	120
EP080/071: Total Petroleum Hydrocarbons(QCLot: 61919 EP071: C10 - C14 Fraction		50		450	l			I
EP071: C10 - C14 Fraction		50	μg/L	<50 	 600 μg/L	72.2	49	110
EP071: C15 - C28 Fraction		100	μg/L	<100				
El ol i. olo ozol ladion	-	100	P9' □		1020 μg/L	103	58	130
EP071: C29 - C36 Fraction		50	μg/L	<50				
EP080/071: Total Petroleum Hydrocarbons (QCLot: 62024	5)							
EP080: C6 - C9 Fraction		20	μg/L	<20	260 μg/L	109	73	135
		20		720	200 pg/L	100		100
EP080: BTEX (QCLot: 620245)	71-43-2	1	ua/l	1	10~/!	104	77.6	122
EP080: Benzene	11-43-2	1	μg/L	<1	10 μg/L	104	77.6	122

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Client : URS AUSTRALIA PTY LTD (QLD)



Sub-Matrix: WATER	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report						
				Spike	Spike Recovery (%)	Recovery Limits (%)		
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP080: BTEX (QCLot: 620245) - continued								
EP080: Toluene	108-88-3	2	μg/L	<2	10 μg/L	103	78.2	122
EP080: Ethylbenzene	100-41-4	2	μg/L	<2	10 μg/L	105	73.8	126
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	μg/L	<2	10 μg/L	105	70.4	129
EP080: ortho-Xylene	95-47-6	2	μg/L	<2	10 μg/L	106	74.3	126

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# ALS

Matrix Spike (MS) Report

# Matrix Spike (MS) Report

Sub-Matrix: SOIL

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

ub-Matrix: SOIL				matrix Spike (MS) Report					
				Spike	Spike Recovery (%)	Recovery Limits (%)			
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
G005T: Total Metal	Is by ICP-AES (QCLot: 620673)								
EB0803650-058 Ano	Anonymous	EG005T: Arsenic	7440-38-2	Anonymous	Anonymous	Anonymous	Anonymou		
		EG005T: Cadmium	7440-43-9	Anonymous	Anonymous	Anonymous	Anonymou		
		EG005T: Chromium	7440-47-3	Anonymous	Anonymous	Anonymous	Anonymou		
		EG005T: Copper	7440-50-8	Anonymous	Anonymous	Anonymous	Anonymou		
		EG005T: Lead	7439-92-1	Anonymous	Anonymous	Anonymous	Anonymo		
		EG005T: Nickel	7440-02-0	Anonymous	Anonymous	Anonymous	Anonymou		
		EG005T: Zinc	7440-66-6	Anonymous	Anonymous	Anonymous	Anonymou		
G035T: Total Merc	cury by FIMS (QCLot: 620674)								
EB0803650-058	Anonymous	EG035T: Mercury	7439-97-6	Anonymous	Anonymous	Anonymous	Anonymou		
P075(SIM)A: Pheno	olic Compounds (QCLot: 621923)								
EB0803651-011	Anonymous	EP075(SIM): Phenol	108-95-2	Anonymous	Anonymous	Anonymous	Anonymou		
		EP075(SIM): 2-Chlorophenol	95-57-8	Anonymous	Anonymous	Anonymous	Anonymou		
		EP075(SIM): 2-Nitrophenol	88-75-5	Anonymous	Anonymous	Anonymous	Anonymou		
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	Anonymous	Anonymous	Anonymous	Anonymou		
		EP075(SIM): Pentachlorophenol	87-86-5	Anonymous	Anonymous	Anonymous	Anonymou		
EP075(SIM)B: Polyn	nuclear Aromatic Hydrocarbons (Q0	CLot: 621923)							
EB0803651-011 An	Anonymous	EP075(SIM): Acenaphthene	83-32-9	Anonymous	Anonymous	Anonymous	Anonymou		
		EP075(SIM): Pyrene	129-00-0	Anonymous	Anonymous	Anonymous	Anonymou		
P080/071: Total Pe	troleum Hydrocarbons (QCLot: 620	0520)							
EB0803692-004	HA_CRCL02_0.0_16/3/08	EP080: C6 - C9 Fraction		28 mg/kg	83.1	70	130		
P080/071: Total Pe	troleum Hydrocarbons (QCLot: 62	1922)							
EB0803651-011	Anonymous	EP071: C10 - C14 Fraction		Anonymous	Anonymous	Anonymous	Anonymou		
		EP071: C15 - C28 Fraction		Anonymous	Anonymous	Anonymous	Anonymou		
EP080: BTEX (QCL	ot: 620520)					-			
EB0803692-004	HA CRCL02 0.0 16/3/08	EP080: Benzene	71-43-2	2 mg/kg	100	70	130		
		EP080: Toluene	108-88-3	2 mg/kg	96.1	70	130		
				Matrix Spike (MS) Report					
ub-Matrix: WATER			_	Spike	Spike Recovery (%)		Limits (%)		
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High		
	Is by ICP-MS (QCLot: 620540)	method. Compound	07.10 7.10.11.00.	00.100.111.41.01.		20			
	Anonymous	EG020A-T: Arsenic	7440-38-2	Anonymous	Anonymous	Anonymous	Anonymou		
	Allonymous	EG020A-T: Alsenic	7440-43-9	Anonymous	Anonymous	Anonymous	Anonymou		
		EG020A-T: Cadmium	7440-43-9	•	•	Anonymous	-		
		EG020A-T: Corporium EG020A-T: Copper	7440-47-3	Anonymous	Anonymous	-	Anonymou		
				Anonymous	Anonymous	Anonymous	Anonymou		
		EG020A-T: Lead	7439-92-1	Anonymous	Anonymous	Anonymous	Anonymou		

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



Sub-Matrix: WATER					Matrix Spike (MS) Rep	oort	
				Spike	Spike Recovery (%)	Recovery	Limits (%)
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metal	s by ICP-MS (QCLot: 620540) - continued						
EB0803527-002	Anonymous	EG020A-T: Nickel	7440-02-0	Anonymous	Anonymous	Anonymous	Anonymous
EG035T: Total Merc	ury by FIMS (QCLot: 624259)						
EB0803680-015	Anonymous	EG035T: Mercury	7439-97-6	Anonymous	Anonymous	Anonymous	Anonymous
EP080/071: Total Pet	troleum Hydrocarbons (QCLot: 620245)						
EB0803659-001	Anonymous	EP080: C6 - C9 Fraction		Anonymous	Anonymous	Anonymous	Anonymous
EP080: BTEX (QCLo	ot: 620245)						
EB0803659-001	Anonymous	EP080: Benzene	71-43-2	Anonymous	Anonymous	Anonymous	Anonymous
		EP080: Toluene	108-88-3	Anonymous	Anonymous	Anonymous	Anonymous

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES



#### **Environmental Division**

## INTERPRETIVE QUALITY CONTROL REPORT

**Work Order** : **EB0803692** Page : 1 of 9

Client : URS AUSTRALIA PTY LTD (QLD) Laboratory : Environmental Division Brisbane

Contact : MR DALE GOULD Contact : Tim Kilmister

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Project : 42626158 QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Site : ----

C-O-C number : ---- Date Samples Received : 20-MAR-2008
Sampler : Dale Gould Issue Date : 01-APR-2008

Order number : ----

BRISBANE QLD, AUSTRALIA 4001

Quote number : EN/001/08 No. of samples received : 5

Quote number : EN/001/08 No. of samples analysed : 5

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Page : 2 of 9
Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



## **Analysis Holding Time Compliance**

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not quarantee a breach for all non-volatile parameters.

Matrix: SOIL		Evaluation	<b>x</b> = Holding time breach ; ✓ = Within holding time.
Method	Sample Date	Extraction / Preparation	Analysis

Method			Ex	traction / Preparation		Analysis			
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA055: Moisture Content									
Soil Glass Jar - Unpreserved  HA_CRCL01_0.0_16/3/08,  HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008				25-MAR-2008	23-MAR-2008	æ	
EG005T: Total Metals by ICP-AES									
Soil Glass Jar - Unpreserved HA_CRCL01_0.0_16/3/08, HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	26-MAR-2008	12-SEP-2008	<b>✓</b>	26-MAR-2008	12-SEP-2008	✓	
EG035T: Total Mercury by FIMS									
Soil Glass Jar - Unpreserved HA_CRCL01_0.0_16/3/08, HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	26-MAR-2008	12-SEP-2008	✓	31-MAR-2008	13-APR-2008	✓	
EP075(SIM)A: Phenolic Compounds									
Soil Glass Jar - Unpreserved  HA_CRCL01_0.0_16/3/08,  HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	28-MAR-2008	30-MAR-2008	✓	31-MAR-2008	07-MAY-2008	✓	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Soil Glass Jar - Unpreserved  HA_CRCL01_0.0_16/3/08,  HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	28-MAR-2008	30-MAR-2008	✓	31-MAR-2008	07-MAY-2008	✓	
EP080/071: Total Petroleum Hydrocarbons									
Soil Glass Jar - Unpreserved HA_CRCL01_0.0_16/3/08, HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	26-MAR-2008	30-MAR-2008	✓	26-MAR-2008	30-MAR-2008	✓	
Soil Glass Jar - Unpreserved HA_CRCL01_0.0_16/3/08, HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	28-MAR-2008	30-MAR-2008	✓	31-MAR-2008	07-MAY-2008	✓	
EP080: BTEX									
Soil Glass Jar - Unpreserved HA_CRCL01_0.0_16/3/08, HA_CRQC01_16/3/08	HA_CRCL02_0.0_16/3/08,	16-MAR-2008	26-MAR-2008	30-MAR-2008	✓	26-MAR-2008	30-MAR-2008	✓	

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Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



Matrix: WATER					Evaluation:	x = Holding time	breach; ✓ = Withir	n holding time.
Method		Sample Date	Extraction / Preparation			Analysis		
Container / Client Sample ID(s)			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS								
Clear Plastic Bottle - Nitric Acid; Unfiltere R01_16/03/08_CR	d	16-MAR-2008	26-MAR-2008	12-SEP-2008	✓	26-MAR-2008	12-SEP-2008	✓
EG035T: Total Mercury by FIMS								
Clear Plastic Bottle - Nitric Acid; Unfiltere R01_16/03/08_CR	d	16-MAR-2008				31-MAR-2008	13-APR-2008	<b>✓</b>
EP080/071: Total Petroleum Hydrocarbons								
Amber Glass Bottle - Unpreserved R01_16/03/08_CR		16-MAR-2008	21-MAR-2008	23-MAR-2008	<b>√</b>	27-MAR-2008	30-APR-2008	<b>✓</b>
Amber VOC Vial - HCl or NaHSO4 TB_01_16/03/08_CR,	R01_16/03/08_CR	16-MAR-2008				26-MAR-2008	30-MAR-2008	✓
EP080: BTEX								
Amber VOC Vial - HCl or NaHSO4 TB_01_16/03/08_CR,	R01_16/03/08_CR	16-MAR-2008				26-MAR-2008	30-MAR-2008	✓

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



## **Quality Control Parameter Frequency Compliance**

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**Evaluation: × = Quality Control frequency not within specification: ✓ = Quality Control frequency within specification

Matrix: SOIL		Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.						
Quality Control Sample Type		С	ount		Rate (%)		Quality Control Specification	
Analytical Methods	Method	QC	Reaular	Actual	Expected	Evaluation		
Laboratory Duplicates (DUP)								
Moisture Content	EA055-103	1	9	11.1	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
PAH/Phenols (SIM)	EP075(SIM)	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Total Mercury by FIMS	EG035T	2	19	10.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Total Metals by ICP-AES	EG005T	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
TPH - Semivolatile Fraction	EP071	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
TPH Volatiles/BTEX	EP080	2	18	11.1	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Laboratory Control Samples (LCS)								
PAH/Phenols (SIM)	EP075(SIM)	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Total Mercury by FIMS	EG035T	1	19	5.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
TPH - Semivolatile Fraction	EP071	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
TPH Volatiles/BTEX	EP080	1	18	5.6	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Method Blanks (MB)								
PAH/Phenols (SIM)	EP075(SIM)	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Total Mercury by FIMS	EG035T	1	19	5.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
TPH - Semivolatile Fraction	EP071	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
TPH Volatiles/BTEX	EP080	1	18	5.6	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement	
Matrix Spikes (MS)								
PAH/Phenols (SIM)	EP075(SIM)	1	20	5.0	5.0	✓	ALS QCS3 requirement	
Total Mercury by FIMS	EG035T	1	19	5.3	5.0	✓	ALS QCS3 requirement	
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	ALS QCS3 requirement	
TPH - Semivolatile Fraction	EP071	1	20	5.0	5.0	✓	ALS QCS3 requirement	
TPH Volatiles/BTEX	EP080	1	18	5.6	5.0	<b>√</b>	ALS QCS3 requirement	

Matrix: WATER

Evaluation: **x** = Quality Control frequency not within specification; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Reaular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Total Mercury by FIMS	EG035T	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	1	7	14.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	13	7.7	10.0	)£	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Total Mercury by FIMS	EG035T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	2	9	22.2	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement

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Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



Matrix: WATER         Evaluation: x = Quality Control frequency not within specification; √ = Quality Control frequency within specification.												
Quality Control Sample Type		Count			Rate (%)		Quality Control Specification					
Analytical Methods	Method	QC	Reaular	Actual	Expected	Evaluation						
Laboratory Control Samples (LCS) - Continued												
TPH - Semivolatile Fraction	EP071	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement					
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement					
Method Blanks (MB)												
Total Mercury by FIMS	EG035T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement					
Total Metals by ICP-MS - Suite A	EG020A-T	2	9	22.2	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement					
TPH - Semivolatile Fraction	EP071	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement					
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement					
Matrix Spikes (MS)												
Total Mercury by FIMS	EG035T	1	20	5.0	5.0	✓	ALS QCS3 requirement					
Total Metals by ICP-MS - Suite A	EG020A-T	1	7	14.3	5.0	✓	ALS QCS3 requirement					
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	ALS QCS3 requirement					

Page : 6 of 9 Work Order : EB0803692

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



#### **Brief Method Summaries**

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (1999) Schedule B(3) (Method 102)
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Preparation Methods	Method	Matrix	Method Descriptions

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then
sediments and sludges			cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for
			analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This
			method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge	ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge
and Trap			and Trap - GC/MS.
Tumbler Extraction of Solids (Option B -	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 20mL 1:1
Non-concentrating)			DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.
Digestion for Total Recoverable Metals	EN25	WATER	USEPA SW846-3005 Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and
			ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (1999) Schedule
			B(3) (Appdx. 2)
Separatory Funnel Extraction of Liquids	ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three
			times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for
			analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment
			which may be resident in the container.

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



## **Summary of Outliers**

#### **Outliers: Quality Control Samples**

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW 846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

#### Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.
- For all matrices, no Laboratory Control outliers occur.
- For all matrices, no Matrix Spike outliers occur.

#### Regular Sample Surrogates

Sub-Matrix: SOIL

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)S: Phenolic Compound Surrogates	EB0803692-005	HA_CRQC01_16/3/08	2.4.6-Tribromophenol	118-79-6	Not		Surrogate recovery not determined due
					Determined		to (target or non-target) matrix
							interferences
EP075(SIM)S: Phenolic Compound Surrogates	EB0803692-004	HA_CRCL02_0.0_16/3/08	2.4.6-Tribromophenol	118-79-6	Not		Surrogate recovery not determined due
					Determined		to (target or non-target) matrix
							interferences
EP075(SIM)T: PAH Surrogates	EB0803692-005	HA_CRQC01_16/3/08	Anthracene-d10	1719-06-8	Not		Surrogate recovery not determined due
					Determined		to (target or non-target) matrix
							interferences
EP080S: TPH(V)/BTEX Surrogates	EB0803692-003	HA_CRCL01_0.0_16/3/08	1.2-Dichloroethane-D4	17060-07-0	174 %	80-121 %	Recovery greater than upper data
							quality objective
EP080S: TPH(V)/BTEX Surrogates	EB0803692-005	HA_CRQC01_16/3/08	1.2-Dichloroethane-D4	17060-07-0	123 %	80-121 %	Recovery greater than upper data
							quality objective
EP080S: TPH(V)/BTEX Surrogates	EB0803692-004	HA_CRCL02_0.0_16/3/08	1.2-Dichloroethane-D4	17060-07-0	124 %	80-121 %	Recovery greater than upper data
							quality objective
EP080S: TPH(V)/BTEX Surrogates	EB0803692-003	HA_CRCL01_0.0_16/3/08	Toluene-D8	2037-26-5	135 %	81-117 %	Recovery greater than upper data
							quality objective
EP080S: TPH(V)/BTEX Surrogates	EB0803692-003	HA_CRCL01_0.0_16/3/08	4-Bromofluorobenzene	460-00-4	137 %	74-121 %	Recovery greater than upper data
							quality objective

#### **Outliers : Analysis Holding Time Compliance**

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

Matrix: SOIL

Method	Extraction / Preparation			Analysis			
Container / Client Sample ID(s)	Date extracted	Due for extraction	Days	Date analysed	Due for analysis	Days	
			overdue			overdue	

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



#### Matrix: SOIL

Method			Ex	traction / Preparation		Analysis				
Container / Client Sample ID(s)			Date extracted	Due for extraction	Days	Date analysed	Due for analysis	Days		
					overdue			overdue		
EA055: Moisture Content										
Soil Glass Jar - Unpreserved										
HA_CRCL01_0.0_16/3/08,	HA_CRCL02_0.0_16/3/08,					25-MAR-2008	23-MAR-2008	2		
HA_CRQC01_16/3/08										

## **Outliers : Frequency of Quality Control Samples**

The following report highlights breaches in the Frequency of Quality Control Samples.

#### Matrix: WATER

Quality Control Sample Type	Co	ount	Rate	e (%)	Quality Control Specification
Method	QC	Regular	Actual Expected		
Laboratory Duplicates (DUP)					
TPH - Semivolatile Fraction	1	13	7.7	10.0	NEPM 1999 Schedule B(3) and ALS QCS3 requirement

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES



#### **Environmental Division**

#### CERTIFICATE OF ANALYSIS

: EB0804516 **Work Order** Page : 1 of 4

Client : URS AUSTRALIA PTY LTD (QLD) Laboratory : Environmental Division Brisbane

Contact : MR DALE GOULD Contact : Tim Kilmister

Address : GPO BOX 302 Address : 32 Shand Street Stafford QLD Australia 4053

BRISBANE QLD. AUSTRALIA 4001

: Services.Brisbane@alsenviro.com E-mail : dale\_gould@urscorp.com E-mail

Telephone : 32432111 Telephone : +61-7-3243 7222 Facsimile : 32432199 Facsimile : +61-7-3243 7218

Project : 42626158 QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Order number

C-O-C number **Date Samples Received** : 08-APR-2008 Sampler : Dale Gould Issue Date : 11-APR-2008

Site

No. of samples received : 1 Quote number : EN/001/08 No. of samples analysed : 1

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

**Signatories** 

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Inorganics
Matthew Goodwin	Senior Analyst	Inorganics
Matthew Goodwin	Senior Analyst	Organics

**Environmental Division Brisbane** Part of the ALS Laboratory Group

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Page : 2 of 4
Work Order : EB0804516

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# ALS

#### **General Comments**

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been preformed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key: CAS Number = Chemistry Abstract Services number

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

PCB: Sample required dilution prior to analysis due to matrix interferences. LOR values have been adjusted accordingly.

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Work Order : EB0804516

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158



## Analytical Results

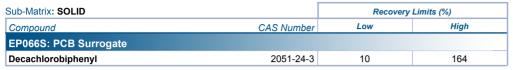
Sub-Matrix: SOLID	Client sample ID		HA_CRCL01_0.0_16/3/	 	 	
				08		
	CI	ient sampli	ing date / time	16-MAR-2008 08:00	 	 
Compound	CAS Number	LOR	Unit	EB0804516-001	 	 
EA055: Moisture Content						
^ Moisture Content (dried @ 103°C)		1.0	%	7.5	 	 
EP066: Polychlorinated Biphenyls (PCB)						
Total Polychlorinated biphenyls		0.10	mg/kg	<4.96	 	 
EP066S: PCB Surrogate						
Decachlorobiphenyl	2051-24-3	0.1	%	Not Determined	 	 

Page : 4 of 4 Work Order : EB0804516

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

## **Surrogate Control Limits**





Environmental Division

Brisbane

Vork Order

30804516

### Maggie Kahi

From:

Phillip Kennedy

Sent:

Tuesday, 8 April 2008 1:53 PM

To:

Maggie Kahi

Subject: F

FW: rebatch for PCB;s out of EB0803692

Importance: High

And another.

Please get this one organised first.

Cheers,

## Phillip Kennedy

#### **Assistant Laboratory Manager - Environmental**

Brisbane, Australia

Phone: Fax:

+61 7 3243 7222 +61 7 3243 7181

www.alsglobal.com

From: Tim Kilmister

Sent: Tuesday, 8 April 2008 1:23 PM

To: Phillip Kennedy

**Subject:** FW: rebatch for PCB;s out of EB0803692

Phil

(1)

As per a client request can you rebatch #3 from EB0803692 for PCBs due this coming Friday.

Let me know the WO number and as soon as I have written confirmation from the client I will send it through (please rebatch using this e-mail as the CoC in the first instance).

thanks

#### **Tim Kilmister**

Laboratory Manager

#### **ALS Laboratory Group**

Brisbane, Australia

Phone: + 61 7 3243 7222 Fax: + 61 7 3243 7259 www.alsglobal.com

From: Michael Tobe

Sent: Tuesday, 8 April 2008 12:26 PM

**To:** Tim Kilmister **Cc:** Michael Heery

**Subject:** rebatch for PCB;s out of EB0803692

Chris Morrison at URS has just advised me that a fax was sent previously (and call made) to ask for a rebatch, that doesn't appear to have been done.

PCB's are Urgently required on samples 2 - 4 from EB0803692.

Holding times have now expired so he asked if we could do something with the already extracted sample.

**Michael Tobe** 

**Customer Services** 

ALS Laboratory Group Environmental Division

8/04/2008

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES



#### **Environmental Division**

### **QUALITY CONTROL REPORT**

**Work Order** : **EB0804516** Page : 1 of 5

Client : URS AUSTRALIA PTY LTD (QLD) Laboratory : Environmental Division Brisbane

Contact : MR DALE GOULD Contact : Tim Kilmister

Address : GPO BOX 302 Address : 32 Shand Street Stafford QLD Australia 4053

 Telephone
 : 32432111
 Telephone
 : +61-7-3243 7222

 Facsimile
 : 32432199
 Facsimile
 : +61-7-3243 7218

Project : 42626158 QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Site : ----

C-O-C number : ---- Date Samples Received : 08-APR-2008
Sampler : Dale Gould Issue Date : 11-APR-2008

Order number : ----

No. of samples received : 1

Quote number : EN/001/08 No. of samples analysed : 1

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. This Quality Control Report contains the following information:

• Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits

BRISBANE QLD. AUSTRALIA 4001

- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

#### Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

 Signatories
 Position
 Accreditation Category

 Kim McCabe
 Senior Inorganic Chemist
 Inorganics

 Matthew Goodwin
 Senior Analyst
 Inorganics

Matthew GoodwinSenior AnalystInorganicMatthew GoodwinSenior AnalystOrganics

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32 Shand Street Stafford QLD Australia 4053 **Tel. +61-7-3243 7222** Fax. +61-7-3243 7218 **www.alsglobal.com** 

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Page : 2 of 5 Work Order : EB0804516

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# ALS

#### General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been preformed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key: Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot

CAS Number = Chemistry Abstract Services number

LOR = Limit of reporting

RPD = Relative Percentage Difference

# = Indicates failed QC

Page : 3 of 5
Work Order : EB0804516

Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

## ALS

#### Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: SOIL			Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)	
EP066: Polychlorinat	ted Biphenyls (PCB) (QC Lo	ot: 630360)								
EB0804516-001	HA_CRCL01_0.0_16/3/08	EP066: Total Polychlorinated biphenyls		0.10	mg/kg	<4.96	<4.94	0.3	No Limit	

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Client : URS AUSTRALIA PTY LTD (QLD)

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#### Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: SOIL			Method Blank (MB)	Laboratory Control Spike (LCS) Report					
				Report	Spike	Spike Recovery (%)	Recovery	Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration LCS Low			High	
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 630360)									
EP066: Total Polychlorinated biphenyls		0.1	mg/kg		0.5 mg/kg	76.6	53.8	105	
		0.10	mg/kg	<0.10					

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Client : URS AUSTRALIA PTY LTD (QLD)

Project : 42626158

# ALS

#### Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

• No Matrix Spike (MS) Results are required to be reported.

## **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES



#### **Environmental Division**

## INTERPRETIVE QUALITY CONTROL REPORT

**Work Order** : **EB0804516** Page : 1 of 5

Client : URS AUSTRALIA PTY LTD (QLD) Laboratory : Environmental Division Brisbane

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Project : 42626158 QC Level : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

No. of samples received

: 1

Site : ---C-O-C number : ----

C-O-C number : ---- Date Samples Received : 08-APR-2008
Sampler : Dale Gould Issue Date : 11-APR-2008

Order number : ----

BRISBANE QLD, AUSTRALIA 4001

Quote number : EN/001/08 No. of samples analysed : 1

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

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Project : 42626158



### **Analysis Holding Time Compliance**

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not quarantee a breach for all non-volatile parameters.

Matrix: SOIL

Evaluation:	x  = Holding time breach ; ✓ = Within holding time.
1	Analysis

Method	Sample Date	Ex	traction / Preparation			Analysis	
Container / Client Sample ID(s)		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved							
HA_CRCL01_0.0_16/3/08	16-MAR-2008				09-APR-2008	23-MAR-2008	×
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved							
HA_CRCL01_0.0_16/3/08	16-MAR-2008	09-APR-2008	30-MAR-2008	sc	10-APR-2008	19-MAY-2008	✓

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## **Quality Control Parameter Frequency Compliance**

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**Evaluation: × = Quality Control frequency not within specification; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Co	ount	Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Reaular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	1	4	25.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	1	100.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Polychlorinated Biphenyls (PCB)	EP066	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Polychlorinated Biphenyls (PCB)	EP066	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement

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#### **Brief Method Summaries**

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (1999) Schedule B(3) (Method 102)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 504)
Preparation Methods	Method	Matrix	Method Descriptions
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na2SO4 and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

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## **Summary of Outliers**

#### **Outliers: Quality Control Samples**

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

#### Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.
- For all matrices, no Laboratory Control outliers occur.
- For all matrices, no Matrix Spike outliers occur.

#### Regular Sample Surrogates

Sub-Matrix: SOLID

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP066S: PCB Surrogate	EB0804516-001	HA_CRCL01_0.0_16/3/08	Decachlorobiphenyl	2051-24-3	Not		Surrogate recovery not determined due
					Determined		to (target or non-target) matrix
							interferences

#### **Outliers: Analysis Holding Time Compliance**

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

Matrix: SOIL

Extraction / Preparation Analysis					
Date extracted	Date extracted			Due for analysis	Days
		overdue			overdue
			09-APR-2008	23-MAR-2008	17
09-APR-2008	30-MAR-2008	10			
	Date extracted	Date extracted	Date extracted	Date extracted Due for extraction Days overdue  Date analysed overdue  Date analysed overdue	Date extracted Due for extraction Days overdue Date analysed Due for analysis  09-APR-2008 23-MAR-2008

#### **Outliers: Frequency of Quality Control Samples**

The following report highlights breaches in the Frequency of Quality Control Samples.

• No Quality Control Sample Frequency Outliers exist.

CAVAL RIDGE, CONTAMINATED LAND PRELIMINARY SITE INVESTIGATION

Appendix D RPD Calculations



## DATA VALIDATION RPD Calculations

Location		
Sample ID		
Date Samp	led	
Sample Ty	Эе	

HA_CRCL02_0.0_16/3/08	HA_CRCL02_0.0_16/3/08	Pass
HA_CRCL02_0.0_16/3/08	HA_CRQC01_16/3/08	Pass-1
16/03/2008	16/03/2008	Pass-2
Primary	Secondary	

RPD <= 30% RPD > 30%, Analyis result < 10 times LOR RPD <= 30%, Analysis result > 10 times LOR and < 20 times LOR

Analyte Group	Analyte	LOR1	LOR2	LOR3	Units			Primary vs. Duplicate	Units Flag	Category1
BTEX Compounds	Benzene	0.2	0.2	-	mg/kg	< 0.2	< 0.2	-		-
BTEX Compounds	Ethylbenzene	0.5	0.5	-	mg/kg	< 0.5	< 0.5	-		-
BTEX Compounds	m&p-Xylene	0.5	0.5	-	mg/kg	< 0.5	< 0.5	-		-
BTEX Compounds	o-Xylene	0.5	0.5	-	mg/kg	< 0.5	< 0.5	-		-
BTEX Compounds	Toluene	0.5	0.5	-	mg/kg	< 0.5	< 0.5	-		-
Metals (Total)	Arsenic	5	5	-	mg/kg	< 5	< 5	-		-
Metals (Total)	Cadmium	1	1	-	mg/kg	< 1	< 1	-		-
Metals (Total)	Chromium	2	2	-	mg/kg	10	12	18.18%		Pass
Metals (Total)	Copper	5	5	-	mg/kg	5	6	18.18%		Pass
Metals (Total)	Lead	5	5	-	mg/kg	8	8	0.00%		Pass
Metals (Total)	Mercury	0.1	0.1	-	mg/kg	< 0.1	< 0.1	-		-
Metals (Total)	Nickel	2	2	-	mg/kg	5	5	0.00%		Pass
Metals (Total)	Zinc	5	5	-	mg/kg	6	7	15.39%		Pass
Moisture Content	Moisture Content	1	1	-	%	8.9	12.3	32.08%		Pass-2
Phenolic Compounds	2,4,5-Trichlorophenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2,4,6-Trichlorophenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2,4-Dichlorophenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2,4-Dimethylphenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2,6-Dichlorophenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2-Chlorophenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2-Methylphenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	2-Nitrophenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	3- & 4-Methylphenol	4.6	3.9	-	mg/kg	< 4.6	< 3.9	-		-
Phenolic Compounds	4-Chloro-3-Methylphenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Phenolic Compounds	Pentachlorophenol	4.6	3.9	-	mg/kg	< 4.6	< 3.9	-		-
Phenolic Compounds	Phenol	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Acenaphthene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Acenaphthylene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Anthracene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Benzo(a)anthracene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Benzo(a)pyrene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Benzo(b)fluoranthene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Benzo(g,h,i)perylene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Benzo(k)fluoranthene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Chrysene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Dibenz(a,h)anthracene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Fluoranthene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Fluorene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Indeno(1,2,3-cd)pyrene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Naphthalene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Polynuclear Aromatic Hydrocarbons	Phenanthrene	2.3	0.5	-	mg/kg	< 2.3	4	53.97%		Pass-1
Polynuclear Aromatic Hydrocarbons	Pyrene	2.3	1.9	-	mg/kg	< 2.3	< 1.9	-		-
Total Petroleum Hydrocarbons	C10-C14 fraction	50	50	-	mg/kg	4390	3730	16.26%		Pass
Total Petroleum Hydrocarbons	C15-C28 fraction	100	100	-	mg/kg	30100	29600	1.68%		Pass
Total Petroleum Hydrocarbons	C29-C36 fraction	100	100	-	mg/kg	170	170	0.00%		Pass
Total Petroleum Hydrocarbons	C6-C9 fraction	10	10	-	mg/kg	< 10	< 10	-		-