Broaden Management Pty Ltd

Environmental Site Assessment

Part Lot 1131 DP1057179,
John Renshaw Drive, Black Hill, NSW

14 August 2018

54892/115852 / Rev 0

JBS&G Australia Pty Ltd

www.jbsg.com.au

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Table of Contents

Abbreviations vii

Executive Summary viii

1. Introduction 1
   - 1.1 Introduction and Background 1
   - 1.2 Proposed Development 1
     - 1.2.1 General 1
     - 1.2.2 Stage 1 - Site Vegetation Clearing 1
     - 1.2.3 Stage 2 – Site Modifications and Civil Works 1
     - 1.2.4 Project Staging 2
   - 1.3 Objectives 2
   - 1.4 Scope of Works 2

2. Site Condition and Surrounding Environment 3
   - 2.1 Site Identification 3
   - 2.2 Site Description 3
   - 2.3 Surrounding Areas 3
   - 2.4 Topography 3
   - 2.5 Hydrology 4
   - 2.6 Hydrogeology 4
   - 2.7 Geology and Soil 5
   - 2.8 Acid Sulfate Soils 6
   - 2.9 Salinity Potential 6
   - 2.10 Flora and Fauna 6
   - 2.11 Heritage 6

3. Previous Environmental Assessments 7
   - 3.1 Information Provided by Client 7
   - 3.2 Summary of Key Historical Information 7
   - 3.3 JBS&G (2017) Contaminated Land Due Diligence Assessment 9
   - 3.4 JBS&G (2018) Stage 1 RAP 11
   - 3.5 Background Reports Provided for Review after JBS&G (2018) Stage 1 RAP 11
   - 3.6 Historical Data 15
   - 3.7 Missing Historical Reports 16

4. Site History 17
   - 4.1 Aerial Photographs 17
   - 4.2 Title Details 18
   - 4.3 EPA Records 18
   - 4.4 Australian and NSW Heritage Register 18

4.5 WorkCover Dangerous Goods Database 18
4.6 Council Information – Planning Certificates 18
4.7 Per- and Poly-fluoroalkyl Substances (PFAS) 19
5. Working Conceptual Site Model 20
5.1 Areas of Environmental Concern 20
5.2 Potentially Contaminated Media 20
5.3 Potential for Migration, Exposure Pathways and Receptors 21
5.4 Potential Exposure Pathways 21
5.5 Receptors 21
5.6 Preferential Pathways 22
5.7 Data Gaps 22
6. Assessment Criteria 32
6.1 Regulatory Guidelines 32
6.2 Assessment Criteria – Soil Contamination 32
6.3 Assessment Criteria – Sediment Contamination 33
6.4 Assessment Criteria – Water Contamination 33
7. 2018 Data Gap Investigation 34
7.1 Sampling and Analysis Plan 34
7.1.1 Data Quality Objectives 34
7.1.2 State the Problem 34
7.1.3 Identify the Decision 34
7.1.4 Identify Inputs to the Decision 34
7.1.5 Define the Study Boundaries 35
7.1.6 Develop a Decision Rule 35
7.1.7 Specify Limits of Decision Error 36
7.1.8 Optimise the Design for Obtaining Data 37
7.2 Scope of Works 38
7.3 Field Observations 39
7.4 Analytical Results 40
7.5 Discussion 40
8. Quality Assurance / Quality Control 42
9. Refined Conceptual Site Model 43
10. Conclusions and Recommendations 44
10.1 Conclusions 44
10.2 Recommendations 44
11. Limitations 45

List of Tables

Table 2.1: Site Details 3
Table 2.2: Registered Bores within a 1.5 km Radius of Site 4
Table 3.1 Potential Contaminants of Concern (sourced from NAA 2013) 8
Table 5.1 Areas of Environmental Concern and Associated Contaminants of Potential Concern 20
Table 5.2 Areas of Environmental Concern Data Gaps 23
Table 7.1 Summary of Decision Rules 35
Table 7.2 Summary of Quality Assurance / Quality Control Program 37
Table 8.1: Summary of Data Quality Assessment 42

List of Figures

Figure 1 Site Location
Figure 2 Site Zoning
Figure 3 General Site Features
Figure 4 Areas of Environmental Concern (DP, 2007)
Figure 5a Previous Site Investigation – North East
Figure 5b Previous Site Investigation – North West
Figure 5c Previous Site Investigation – South West
Figure 5d Previous Site Investigation – South East
Figure 6a Sample Locations – Farm 19
Figure 6b Sample Locations – Infill Ponds
Figure 6c Sample Locations – Surface Samples
Figure 7 Site Walk Over Findings

Appendices

Summary Tables (2018 Data Gap Investigation)
Historic Results Summary Tables
Appendix A Proposed Development Plans
Appendix B Previous Investigations
Appendix C Registered Groundwater Monitoring Wells
Appendix D Aerial Photographs
Appendix E Land Titles
Appendix F EPA Records
Appendix G Heritage Records
Appendix H Section 10.7 Certificate
Appendix I Calibration Certificate
Appendix J Test Pit Logs

Appendix K Site Walk Over Photograph Log
Appendix L Laboratory Documentation
Appendix M Data Quality Assessment

Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AHD	Australian Height Datum
ASS	Acid Sulphate Soils
BTEX	Benzene, Toluene Ethylbenzene and Xylene
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DP	Deposited Plan
DQI	Date Quality Indicators
DQO	Data Quality Objectives
EPA	Environmental Protection Authority
ESA	Environmental Site Assessment
JBS&G	JBS&G Australia Pty Ltd
LEP	Local Environmental Plan
LOR	Limit of Reporting
LPI	Land and Property Information
NSW	New South Wales
OCP	Organochlorine Pesticide
OEH	Office of the Environment and Heritage
OPP	Organophosphorus Pesticide
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
POEO	Protection of the Environment Operations
PSI	Preliminary Site Assessment
RAP	Remedial Action Plan
RPD	Relative Percent Difference
sVOC	Semi Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
VOC	Volatile Organic Compounds

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Barr Property and Planning, on behalf of Broaden Management Pty Ltd (Broaden, the client), to prepare a Environmental Site Assessment (ESA) in relation to a portion of the former Steggles poultry farm located on John Renshaw Drive, Black Hill, NSW. The site is legally defined as part Lot 1131 DP 1057179 and occupies an area of approximately 220 hectares. The site is proposed to be developed for an industrial purpose, with the proposed development to include site wide cut and fill activities (see **Appendix A** and **Section 1.2**). Figures showing the location and boundaries of the site are provided as **Figure 1** and **Figure 2**.

Historical contamination investigations have been completed at the site by a range of consultants (see **Appendix B** and **Section 3.1**) and these investigations have identified evidence of contamination which requires remediation. However, additional work was required in accordance with guidance made or approved by the NSW Environment Protection Authority (EPA) in order to prepare a Remedial Action Plan (RAP) which meets the requirements of State Environmental Planning Policy 55 (Remediation of Land). This report documents additional work conducted by JBS&G in order to facilitate preparation of a RAP.

This report has been prepared in accordance with guidelines made or approved by the EPA, including the *National Environment Protection (Assessment of Site Contamination) Measure* 1999, as amended 2013 (the ASC NEPM).

The objectives of the investigation are:

- To assess the potential for contamination based on current and historical site activities; and
- Identify contamination which requires remediation in order to render the site suitable for the proposed development; and
- Develop a Conceptual Site Model (CSM) which informs a RAP.

The scope of works for this investigation comprised:

- A desktop review of available site history and background information to identify potential areas of environmental concern (AECs) and associated contaminants of potential concern (COPC);
- Development and documentation of a working CSM based on the available information presented in relevant background reports;
- An intrusive investigation program to target data gaps which are critical with respect to development of a RAP; and
- Refinement of the CSM based upon the data gap investigations in order to inform a RAP.

Subject to the limitations provided in **Section 11**, it is concluded that:

- Site contamination exists which requires remediation in order to render the site suitable for the proposed development, noting that the extent of contamination appears to be relatively limited in the context of the site area and number of historical potentially contaminating activities of concern. The principle concerns relate to Asbestos Containing Material (ACM) associated with historical demolition works and fill importation, with buried organic wastes within former waste dump areas and isolated petroleum hydrocarbon contamination representing secondary concerns;
- The contamination investigations completed to date have identified the contamination issues which will required remediation and/or management to the extent that a Remedial

Action Plan (RAP) can be prepared which includes requirements for additional data gap investigations in order to confirm remedial volumes.

1. Introduction

1.1 Introduction and Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Barr Property and Planning, care of Broaden Management Pty Ltd (Broaden, the client), to prepare an Environmental Site Assessment (ESA) in relation to a portion of the former Steggles poultry farm located on John Renshaw Drive, Black Hill, NSW. The site is legally defined as part Lot 1131 DP 1057179 and occupies an area of approximately 220 hectares. The site is proposed to be developed for an industrial purpose, with the proposed development to include site wide cut and fill activities (see **Appendix A** and **Section 1.2**). Figures showing the location and boundaries of the site are provided as **Figure 1** and **Figure 2**.

Historical contamination investigations have been completed at the site by a range of consultants (see **Appendix B** and **Section 3.1**) and these investigations have identified evidence of contamination which requires remediation. However, additional work was required in accordance with guidance made or approved by the NSW Environment Protection Authority (EPA) in order to prepare a Remedial Action Plan (RAP) which meets the requirements of State Environmental Planning Policy 55 (Remediation of Land). This report documents additional work conducted by JBS&G in order to facilitate preparation of a RAP.

The ESA has been prepared in accordance with guidelines made or approved by the EPA, including the *National Environment Protection (Assessment of Site Contamination) Measure* 1999, as amended 2013 (the ASC NEPM).

1.2 Proposed Development

It is understood that the proposed future development of the site comprises an industrial subdivision with general lot sizes between 2ha to 9ha. It is understood that cut and fill operations are proposed for the development with excavated material from elevated parts of the proposed industrial subdivision being used as bulk fill in lower lying areas of the site. Proposed development plans are included as **Appendix A**, including subdivision plans and cut/fill plans.

1.2.1 General

The client is proposing a multi-stage development consisting of 30 individual lots (proposed allotments 101-105, 201-205, 301-305, 401-406, 501-505, 601-604). The proposed development is largely confined within the IN2 zoned area. The proposed development plans are included in **Appendix A**, including subdivision plans and cut/fill plans. The development of the site is proposed over individual stages that are defined below.

1.2.2 Stage 1 - Site Vegetation Clearing

The initial stage of development will involve the removal of the vegetation cover from the proposed development areas. The areas of proposed vegetation clearance are depicted in the figures provided in **Figures**.

1.2.3 Stage 2 – Site Modifications and Civil Works

It is understood that cut and fill operations are proposed for the development, with excavated material from elevated parts of the proposed industrial subdivision being used as bulk fill in lower lying areas of the site (see **Appendix A**). These works are anticipated to result in the widespread disturbance of contaminated materials and require appropriate segregation, sampling/analysis and management of excavated materials.

1.2.4 Project Staging

At the time of this report, it is envisaged that the development will be staged, with Stage 1 works to be completed in discrete portions of the site, following by Stage 2 works (i.e. rather than Stage 1 works being completed across the site, followed by Stage 2 works across the site).

1.3 Objectives

The objectives of the investigation are:

- To assess the potential for contamination based on current and historical site activities; and
- Identify contamination which requires remediation in order to render the site suitable for the proposed development; and
- Develop a Conceptual Site Model (CSM) which informs a RAP.

1.4 Scope of Works

The scope of works for this investigation comprised:

- A desktop review of available site history and background information to identify potential areas of environmental concern (AECs) and associated contaminants of potential concern (COPC);
- Development and documentation of a working CSM based on the available information presented in relevant background reports;
- An intrusive investigation program to target data gaps which are critical with respect to development of a RAP; and
- Refinement of the CSM based upon the data gap investigations in order to inform a RAP.

2. Site Condition and Surrounding Environment

2.1 Site Identification

The site details are summarised in **Table 2.1** below.

Table 2.1: Site Details

Site Details	Comment
Lot/DP	Part Lot 1131 DP 1057179
Address	John Renshaw Drive, Black Hill, NSW
Local Government Authority	Cessnock City Council
Approximate co-ordinates (MGA 56)	NW Corner - -32.822251, 151.604396 NE Corner - -32.816468, 151.622232 SE Corner - -32.837585, 151.618284 SW Corner - -32.835358, 151.602233
Current Use	Vacant / agricultural land use
Former Land use	Steggles Poultry Farm (commercial/industrial)
Proposed Land-use	Industrial Development (retail, residential and an extension to Portman Lane)
Current Zoning	Light Industrial (IN2) – approximately 170 ha E2 Environmental Conservation Zone – approximately 50 ha
Total Site Area	Former Poultry Farm – approximately 300 ha Site - approximately 220 ha (excludes former poultry farm area contained within proposed E4 Environmental Conservation Areas)

2.2 Site Description

The site is currently used for cattle grazing. NAA (2013) (see **Section 3.1** for full reference) indicates that the majority of the buildings once used for poultry farming were demolished a number of years ago. The remaining building footprints are predominantly covered in grass.

Large areas of native vegetation are located across the site. There are also several small dams and a number of running, stagnant and dry creeks intersecting the site. A number of rural properties lie to the south of the site. Bushland borders the Site to the east, west and north and the Donaldson Coal Mine Site lies beneath and to the north of the Black Hill site.

Additional information regarding the historical condition of the site is provided in **Section 3.1**.

2.3 Surrounding Areas

The surrounding land uses have been identified as follows:

- North – Coal mine and bushland;
- East – Bushland and residential;
- South – Rural residential; and
- West – Bushland.

2.4 Topography

The topography varies from level fields to undulating terrain and has been disturbed by farming activities in areas cleared of vegetation to a depth of at least 200 centimetres. The original soil in cleared areas has been removed, greatly disturbed or buried. Most of these areas have been levelled to slopes <5%.

2.5 Hydrology

One main creek system was identified running through the north portion of the site, with another creek system being located directly south of the site. The two creeks run in a general south-west to north-east direction. Both creeks were predominantly dry at the time of the JBS&G field investigation during 2017 and 2018, however, significant erosion was identified along portions of the creeks to the extent that bedrock outcrops were noted. Much of the runoff from the site feeds into these creeks. Historical dams referenced within the reports provided by the client (**Section 3.1**) were not observed at the site although were invested as part of additional works in July 2018 (see **Section 7**). Both the creek systems and dams have been plotted on **Figure 3**.

2.6 Hydrogeology

Registered groundwater bore information was obtained from the NSW Office of Water (OW, 2018[1]) database (**Appendix C**). A review of the registered bore information indicated that a total of 10 bores are located within a 1.0 km radius of the site. The bores identified in the search are summarised in **Table 2.2** below.

Table 2.2: Registered Bores within a 1.5 km Radius of Site

Bore ID	Use	Property	Standing Water Level (m bgs)	Well Depth (m)	Distance from Site
GW078128	Monitoring Bore	Beresfield Boral, Beresfield	-	30.00	0.3 km E
GW078124	Monitoring Bore	N/A	-	40.00	0.5 km N
GW078047	Monitoring Bore	N/A	-	54.30	0.5 km N
GW078120	Monitoring Bore	N/A	-	24.00	0.6 km N
GW078125	Monitoring Bore	N/A	-	30.00	0.7 km N
GW078123	Monitoring Bore	N/A	-	33.00	0.7 km NW
GW078121	Monitoring Bore	N/A	-	43.00	0.8 km W
GW078122	Monitoring Bore	N/A	-	35.40	0.8 km NW
GW078126	Monitoring Bore	Beresfield Boral, Beresfield	-	30.00	0.9 km E
GW078127	Monitoring Bore	Not Known	-	30.00	0.9 km SW

Based on documents reviewed as part of this ESA, it is understood that up to ten groundwater monitoring bores may have been installed at the site. It is believed that four were installed by Environmental Earth Sciences (EES) during 2003, another four were installed by the same company during 2004, and Douglas Partners installed two during May 2005. Based on the limited information currently known, groundwater monitoring wells have targeted the following features:

- BH2 – adjacent the vaccine lab;
- BH8 – within Farm 9;
- BH15 – eastern site boundary;
- BH16 – creek area;
- Unknown Well ID, GW02 and GW03 – northern dumping ground;

[1] NSW Govt. Office of Water, http://allwaterdata.water.nsw.gov.au/water.stm , accessed 28 May 2018 (OW 2018)

- Unknown Well ID – south eastern dumping ground;
- GW01 – Farm 10 (offsite); and
- Unknown Well ID – Down slope of the truck wash.

BH2, BH8, BH15, BH16 were all relatively shallow wells (i.e. maximum depth of 6.0 m) and were screened within sediments and/or the top of the shale bedrock. BH2 and BH8 were dry during the first round of sampling in 2003, while the standing water levels within BH15 and BH16 were 2.90 m and 5.10 m below ground level respectively.

NAA (2013) references three groundwater monitoring bores (GW01 though GW03) that were previously installed at the site, one of which, GW01, was locate offsite adjacent Farm 10. Standing water levels within the monitoring wells ranged from 0.15 m to 9.14 m below ground level. Electrical conductivity was reported above 10,000 µS/cm in GW01 and GW03 (mislabelled as MW01 and MW03), compared to 756 µS/cm in GW02 (mislabelled MW02). Based on the depth to groundwater and the EC reading, it is considered likely that GW02 is representative of surface water ingress rather than regional groundwater.

Based on groundwater conditions discussed in previous reports, it is understood that there is perched groundwater located atop of bedrock at the site. This water is likely highly influenced by season rainfall. True groundwater is likely located deeper within bedrock at between 30 and 40mbgl (as per surrounding bores) and flows in a north east direction, however, this is likely influenced by mining activities below and surrounding the site (see **Section 2.7** for further details).

2.7 Geology and Soil

The Newcastle Coalfield Regional Geology 1:100,000 Geological Series Sheet 9231[2] describes the lithology of the Black Hill site as being the Tomago Coal Measure and may comprise either:

- Siltstone, sandstone, coal, tuff and minor carbonaceous claystone;
- Sandstone, minor siltstone, claystone, coal and tuff; or
- Laminated sandstone, claystone, siltstone, coal and tuff.

Bedrock was not encountered during the NAA (2013) investigation, however the Douglas Partners 2005 report (a partial report provided to JBS&G) reportedly indicates that two of the groundwater bores installed at the site encountered bedrock (sandstone and siltstone) at approximately 3 metres belowground level. These wells (GW02 and GW03) were installed to the north west of the northern dump area.

The Newcastle Soil Landscape Series Sheet 9232 (Department of Land and Water Conservation of NSW) indicates that the Black Hill Site is of the Beresfield soil landscape type.

Test pits excavated as part of the NAA (2013) investigation encountered soil which was consistent with the desktop review, however areas of the Site were found to have been extensively disturbed and fill material included soil, farming/building debris, poultry waste material and clay capping.

In accordance with Mine Subsidence reports completed for the site by Douglas Partners and Ditton Geotechnical Services in September 2017 and February 2018 respectively, underground coal mining has occurred across the majority of the Site with the exception of the north west and south west corners. The mine beneath the site ceased operation in 2016 and is currently operating under a "care and maintenance" phase. The mining lease for the site expires on 15 May 2029. As a result of mining activities, subsidence is known to occur in the regional area (Blackhill Mine Subsidence

[2] NSW Department of Mineral Resources 1995

District) and on the site itself. Conclusions of the Mine Subsidence reports indicate that subsidence at the Site has practically completed, unless mining activities commence once more.

2.8 Acid Sulfate Soils

The National Acid Sulfate Soil (ASS) Map accessed through the Australian Soil Resource Information System (ASRIS) indicated that the site is located in an area where the probability of acid sulfate soil being present is extremely low (with very low confidence). Cessnock City Council Local Environmental Plan (LEP) 2011 mapping does not show the site to be in an area classified as containing acid sulfate soils.

2.9 Salinity Potential

Based on a review of historical reports provided to JBS&G, it does not appear that an assessment of site salinity has been completed to date. Following a review of the Hunter Catchment Salinity Assessment final report, the site is considered to be located in an area of very high salinity risk[3]. This risk will need to be considered and addressed within the proposed remedial strategy documented within the RAP, noting that the principle concerns for salinity are crop sensitivity and no crops are proposed as part of the proposed development.

2.10 Flora and Fauna

An assessment of flora and fauna at the site has not been completed by JBS&G as part of this ESA. It is understood that the client has completed appropriate flora/fauna assessments as part of the Environmental Impact Statement (EIS) process and any flora/fauna related approvals / management requirements relevant to the development process will be managed by the client.

2.11 Heritage

An assessment of heritage related issues at the site has not been completed by JBS&G as part of this ESA. It is understood that the client has completed appropriate heritage assessments as part of the EIS process and any heritage related approvals / management requirements relevant to the development will be managed by the client.

[3] NSW EPA (2013), *Hunter Catchment Salinity Assessment,* EPA 2013/0787, November 2013
Figure 4: Areas of dryland salinity and salinity risk within the Hunter River Catchment

3. Previous Environmental Assessments

JBS&G was engaged in 2017 in order to provide advice to the client regarding potential contaminated land related costs associated with the redevelopment of the site. The scope and findings of the investigation were reported in JBS&G (2017) *Contaminated Land Due Diligence Assessment, Former Steggles Poultry Farm, Blackhill Road, Black Hill, NSW*. Historical documents provided by the client were reviewed and the findings of this review are summarised below.

3.1 Information Provided by Client

In preparation of JBS&G (2017), JBS&G was provided nine reference documents from the client pertaining to the site history or proposed development. It is noted that these reports referenced the area to the south of the proposed development site, inclusive of a proposed E4 Environmental Conservation Area to the south of the subject site. The reports provided included:

1. ENVIRON Australia Pty Ltd (2012), *Remediation and Validation Works, Lot 131 Blackhill Road, Black Hill, NSW*, February 2012;
2. Noel Arnold & Associates (2013), *Site Contamination Investigation Diocese of Mainland-Newcastle Former Steggles Poultry Farm Blackhill Road, Black Hill,* September 2013;
3. Greencap (Noel Arnold & Associates) (2015), *Re: Data Review of Black Hill Site Contamination Report*, January 2015;
4. ADW Johnson (2017), *Overall Site Plan (Existing Contours)*, June 2017;
5. ADW Johnson (2017), numerous plans, September 2017;
6. Douglas Partners Pty Ltd (2017a), *Investigation Summary Report, Proposed Industrial Subdivision, Lot 1131, DP1057179, Black Hill*, September 2017;
7. Douglas Partners Pty Ltd (2017b), *Desktop Review – Contaminated Proposed Industrial Subdivision Lot 1131, DP1057179, Black Hill*, September 2017; and
8. Cessnock City Council (date unknown), *Black Hill, Cessnock Local Government Areas Planning Proposal*.

3.2 Summary of Key Historical Information

NAA (2013) and Douglas Partners (2017b) provide a detailed summary of site operations and a number of the historical assessments completed at the site. Douglas Partners (2017b) reference Douglas Partners (2007) which was not provided at the time, however the 2017 report provides 'Table 1' from the 2007 report, which summarises Areas of Potential Environmental Concern (APEC) for the site. 'Table 1' from the Douglas Partners report is shown within **Appendix B**, while the locations have been plotted on **Figure 4**. Figures showing the historical sampling locations (including the known groundwater monitoring wells has been provided in **Figure 5a, 5b, 5c and 5d**. A table showing all previous analytical data to date has been provided in **Historic Results Summary Table**. The following provides a summary of the summary of historical information obtained within the reports provided:

- From 1967 to 2003 the site was used for intense poultry farming, and may have also been used for intensive pig farming within the south western portion of the site;
- A total of 17 farm areas may have existed at the site, each with between one and five poultry sheds present at any one time. The sheds have been removed. No documentation of how and when the removal of sheds took place, whether any contamination or asbestos containing material (ACM) clearance was completed, and where the demolished building material was placed. Multiple references were made to the presence of ACM within the sheds;

- Three nominated dump areas exist at the site; northern, southern and western, utilised for the disposal of various items including dead poultry carcasses, building materials and laboratory waste;
- Burial, composting and incineration of deceased poultry occurred at the site;
- Two underground storage tanks (USTs) were removed from the former workshop area within the southern portion of the site. Localised soil contamination was observed to remain on the tank pit wall, while water pooling in the base of the excavation had a slight sheen;
- At least one above ground storage tank (AST) was known to have been located at the site, located within the south-eastern portion of the site;
- The majority of structures were demolished between 2003 and 2009. No documentation has been provided with regard to the fate of all wastes generated during demolition works;
- Concentrations of total recoverable hydrocarbons (TRH), metals, nutrients and microbiological contaminants were reported above either the adopted human health or ecological protection criteria, for soil, groundwater and surface water samples tested;
- ACM was identified at multiple locations across the site; within building materials, on the surface scattered at multiple locations, and co-mingled with soil at multiple locations. An assessment of friable asbestos (FA) or asbestos fibres (AF) does not appear to have been undertaken at the site;
- Portions of the site have been capped with imported or site sourced capping material, including a portion of the northern dump area, as well as a portion of the southern dump area; and
- The area to the south of the site designated as a proposed E4 Environmental Conservation Area, includes former Farm 10, which was linked to significant ACM contamination. This area was capped. It is not part of this assessment.

NAA (2013) provided a summary of COPCs, which has been updated where appropriate, based on review of other historical documents provided for review and included in **Table 3.1** below.

Table 3.1 Potential Contaminants of Concern (sourced from NAA 2013)

Analyte	Abbreviation	Source
Total recoverable hydrocarbons	TRH	The running of farms across the Site would have required the storage and use of motor oils, fuels and other petroleum based liquids. Re-fueling/spills and dumping may have occurred anywhere on site.
Volatile organic compounds	VOCs	VOCs include benzene, toluene, ethylene and xylene and may be present in stored fuels. Buried dead poultry may produce a variety of VOCs as a product of decomposition. Formaldehyde flakes were also previously identified as a potential contaminant of concern on site.
Organochlorine pesticides	OCPs	Application of pest control products was known to have been made around the footings of farm associated residential buildings. Such chemicals may also have been used in any of the laboratories on Site and would have been stored in the Chemical Store building on Farm 10 (located offsite to the south).
Polychlorinated biphenyls	PCBs	PCBs may also have been used in pesticides, therefore the potential exists for PCBs to be found around the footings of farm associated residential buildings. Such chemicals may also have been used in any of the laboratories on Site and would likely have been stored in the Chemical Store building on Farm 10 (located offsite to the south).

Analyte	Abbreviation	Source
Polycyclic aromatic hydrocarbons	PAH	PAHs are generally associated with ash, coal tar, timber preservatives, asphalt and bituminous based liquids. A number of incinerators have been previously identified on site and associated waste may contain PAHs. Timber preservatives may also have been used to maintain the farmhouses.
Heavy metals	-	Heavy metals are associated with a vast range of chemicals and products used domestically and within agriculture, i.e. herbicides and fungicides. Such products may have been used across the Site (farmhouses and laboratories) and stored in the Chemical Store building on Farm 10 (located offsite to the south).
Nutrients	-	Excessive nutrients within water and soil may result from decomposing poultry, manure or other materials leaching across the site. Excessive nutrient levels in creek water can promote algal blooms. Nutrients indicative of these processes include ammonia, nitrate, nitrite, total nitrogen, phosphorous and sulfates.
E. coli/faecal coliforms/total coliforms	-	Microbiological contaminants are associated with decomposing dead poultry and may be within close proximity to bird burial grounds, bird digesters, transpiration beds and old chicken sheds. High levels of microbiological contaminants have been previously identified in some of the chicken sheds.
Asbestos	ACM	Many of the buildings and infrastructure of the farms contain asbestos materials which were constructed during a period when asbestos was in widespread use and there was minimal control over its disposal. Asbestos cement is often intermixed amongst building debris and rubble that has been used as fill material. Asbestos products were also widely used in the associated farm residences eaves, walls, ceilings etc.
Friable asbestos / Asbestos fines	FA / AF	For the purpose of protecting human health, FA and AF are defined as 'material that is in a powder form or that can be crumbled, pulverized or reduced to a powder by hand pressure when dry, and contains asbestos' (ASC NEPM 2013). The presence of FA and AF cannot be discounted based upon the available information.

3.3 JBS&G (2017) Contaminated Land Due Diligence Assessment

The objective of JBS&G (2017) was to provide advice regarding potential contaminated land related costs associated with the redevelopment of the site. The investigation was limited to a desktop review and targeted soil investigations.

JBS&G completed an initial site inspection in October 2017 followed by advancement of 96 test pits using a 4-tonne excavator with subsequent soil sampling. During the intrusive investigations, demolition waste consisting of steel, concrete, bricks, wood, plastic and PVC was observed at the surface or within shallow surface soil of 16 of the test pits. ACM was observed on the ground surface at four test pit locations. No visual or olfactory evidence of mass disposal of deceased or incinerated poultry was observed during the investigation. No visual evidence of contamination was identified within the proposed Stage 1 land clearing areas, noting that these areas were covered by vegetation at the time of the field investigations.

Analytical laboratory data obtained from soil samples collected from the investigation works is summarised below:

- Fragments of suspected ACM were confirmed to contain chrysotile and amosite asbestos;
- Bonded ACM was identified above the Limit of Reporting (LOR) of 0.001% in a single soil sample at a concentration of 0.013%, which is below the ASC NEPM criteria for commercial/industrial use (i.e. 0.05%);

- FA/AF was not detected in the samples subject to analysis;
- Metals results were considered to be predominantly consistent with potential natural background levels, with no detections above commercial/industrial use criteria based on the protection of human health. Some exceedance of Ecological Investigation Levels (EILs) was evident, however, the results did not appear to be indicative of EIL exceedances which warrant remediation;
- TRH, Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN) and PAHs were predominantly below the LOR, with the exception of detections of TRH C10-C36 at three test pit locations. The TRH concentrations were considered to most likely be representative of acceptable contamination levels when considering the possible source of the TRH (i.e. possibly not petrogenic);
- Total coliforms levels were detected in five samples collected from 5 individual test pit locations. Concentrations of total coliforms in five of the six samples exceeded the NSW EPA (1997) *Environmental Guidelines, Use and Disposal of Biosolids Products* criteria of 1,000MPN[4]/g;
- Elevated total nitrogen levels were detected in eight samples collected from eight individual test pit locations. There are no definitive protection of the environment or human health criteria for nitrogen in soil, noting that the chemical represents an essential nutrient. JBS&G consider that the nitrogen results are of most interest with respect to identifying the likely source of the elevated nutrient levels detected in groundwater reported in NAA (2013).

A review of historical reports provided by the client also indicated the presence of contamination requiring remediation and/or management related to:

- Isolated metals above adopted EILs in two samples and isolated TRH >C10-C36 above the adopted ESLs in two samples;
- E.Coli above the NSW EPA (1997) criteria in two samples and Total coliforms above the NSW EPA (1997) criteria in eight samples;
- The presence of ACM in 13 fibre cement fragments and assumed presence of ACM in an electrical background board;
- Elevated concentrations of ammonia, copper, zinc, E.Coli, faecal coliforms in surface water samples (some exceeding ANZECC 2000 maintenance of ecosystem criteria);
- Elevated concentrations of ammonia, nitrate, nickel, zinc, E.Coli, total coliforms and faecal coliforms, with some results exceeding ANZECC 2000 maintenance of ecosystem criteria, in groundwater samples.

As part of the investigation, an assessment of the soil requiring remediation and potential remediation options was provided. It was recognised that further investigation (PSI and DSI) was required in accordance with the requirements of guidelines made or approved by NSW EPA to determine the necessary extent of remediation. It was assumed that soil requiring remediation would most likely be classified as either General Soil Waste (GSW) or Special Waste (Asbestos) (SWA) in accordance with NSW EPA *Waste Classification Guidelines Part 1: Classifying Waste* (2014). JBS&G (2017) provided estimated potential remediation areas and volumes, however, these were preliminary only for due diligence purposes (i.e. estimation of potential liabilities).

JBS&G (2017) made the following conclusions:

[4] Most Probable Number

- *Based upon the available information, a PSI and DSI process is yet to be completed at a level from which the nature and extent of contamination has been adequately defined in accordance with guidance made or approved by NSW EPA;*
- *The available information indicates that the site in its current condition requires remediation and/or management of contamination to permit the proposed commercial/industrial development from a land contamination perspective;*
- *The primary contamination issues of concern requiring remediation appear to represent:*
    - *Asbestos containing building wastes in numerous areas of the site, noting that the available evidence suggests that asbestos contamination is isolated to relative areas of the site (i.e. not widespread across the entire site);*
    - *Areas with soil containing high levels of nutrients and bacteria contamination which require remediation with respect to risks to human health as well as providing an ongoing source of groundwater contamination, with the former dump areas and transpiration areas representing the primary concerns;*
    - *Nutrient and bacteriological contamination of groundwater and surface water, noting that the available data set is limited.*

  Due to the scale of the site and extent of previous investigations (based on reports which JBS&G has been provided for review), the potential exists for other contamination issues which require remediation to facilitate the proposed development.
- *Soil requiring remediation could be managed through a combination of excavation/offsite disposal, onsite treatment or onsite containment-based approaches. Onsite containment approaches will require long term management and public notification mechanisms. The remediation approach is likely to require Site Auditor endorsement, and Council approval may also be required for some remediation approaches (e.g. where contaminated materials are proposed to be placed beneath roadways);*
- *Preliminary volume estimates made in this report can be used to scale potential remediation costs, however, these cost estimates should consider the uncertainty in the volume estimates and allow for suitable contingencies.*

3.4 JBS&G (2018) Stage 1 RAP

JBS&G prepared a RAP in 2018, namely: JBS&G Australia (2018) *Former Black Hill Steggles Poultry Farm, Remedial Action Plan – Stage 1 Vegetation Clearing, John Renshaw Drive, Black Hill, NSW*. The RAP was prepared to provide a framework for the Stage 1 works (i.e. vegetation clearing in areas where significant contamination is not anticipated). The RAP was prepared to support a Development Application (DA) for the Stage 1 works.

On the basis of work completed after issue of the Stage 1 RAP as part of this report, there is no evidence of contamination within the proposed land clearing area which warrants remediation. As such, the Stage 1 RAP is to be replaced by an EMP to manage risks associated with disturbance of adjacent contaminated areas and unexpected finds.

3.5 Background Reports Provided for Review after JBS&G (2018) Stage 1 RAP

Following the issue of JBS&G (2017) and the Stage 1 RAP, eighteen additional reports were provided for review, including full copies and partial copies (e.g. a few pages of text). These documents are as follows:

1. Douglas Partners Pty Ltd, *Letter of Review of Report on Preliminary Site Investigation*, August 2003;

2. Environmental & Earth Sciences, *Environmental Site Assessment*, September 2003 (Report 103077BH);
3. Douglas Partners Pty Ltd, *Letter of Environmental Site Assessment*, December 2003;
4. Environmental & Earth Sciences *Response to Douglas Partners Pty Ltd review of Lot 131, DP234203, Blackhill Road, Blackhill, New South Wales*, January 2004;
5. Douglas Partners Pty Ltd, *Preliminary Soil and Surface Water Analysis, Proposed Leasing of On-site Farmhouses*, June 2004 (Ref: 31792) – Part of document missing;
6. Dr Edla Arzey, *Report on Microbiological Assessment of Lot 131, DP 234203, Blackhill Road, Blackhill*, *NSW,* June 2004;
7. Douglas Partners Pty Ltd, *Report on Microbiological Assessment*, June 2004 (Ref: 31792);
8. Douglas Partners Pty Ltd, *Preliminary Surface Soil Analysis, Proposed Demolition of Chicken Sheds*, June 2004 (Ref: 31792-1) – Part of document missing;
9. Environmental & Earth Sciences, *Proposed Sampling Plan for additional investigations,* August 2004 – Part of document missing;
10. Douglas Partners Pty Ltd, *Supplementary Contamination Assessment*, May 2005 (Ref: 31792-2) – Part of document missing;
11. Earth & Environmental Sciences, *Draft Environmental Site Assessment,* June 2005;
12. Douglas Partners Pty Ltd, *Review of Environmental Site Assessment – June 2005, Lot 131 DP234203, Blackhill Road, Blackhill,* August 2005;
13. Douglas Partners Pty Ltd, Report on Environmental Assessment, September 2007 (Ref 31792);
14. Letter from Mr Jim Orr (Banksia EOHS) to Mr Damian Harrigan (Dioceses of Maitland-Newcastle), June 2008;
15. Environmental Audit Completed by Graeme Nyland of Environ, August 2009 (ref: AS121060 L_Opinion_31Aug09);
16. Environmental & Safety Professionals, Letter from Mr David Whiting to Ms Kristy Greenfield, November 2011;
17. Environ Australia Pty Ltd, *Environmental Management Plan*, February 2012 (Ref: AS121147); and
18. Environ Australia Pty Ltd, *Environmental Management Plan*, February 2012 (Project No. AS121147).

The following provides a high-level summary of the documents noted above:

- Report 2 (EES, September 2003):
    - Two separate poultry enterprise types were undertaken at the site which included layer (egg) and bird meat (broiler) production. The layer shed housed laying birds in cages. Bird excreta fell through the bottom of the cage onto the floor for easy removal. Eggs rolled onto a wire trough or onto a conveyor belt for collection. The broiler shed was used to raise bird meat and generally had sealed floors and were lined with sawdust. Birds were removed for processing when they reached the required weight, while the sawdust and poultry litter was removed from the shed floors for distribution across the site or appropriate disposal. It was not described which farms undertook which type of enterprise;

- Strong disinfectants mixed with diesel were sprayed around the base of the poultry sheds;
- Four groundwater monitoring wells were installed at the site including BH2 (adjacent the vaccine lab), BH8 (within Farm 9), BH15 (eastern site boundary) and BH16 (creek area). Two wells were dry and a third was not analysed. BH15, indicative of groundwater entering the site, did not identify concentrations of analysed contaminates exceeding the adopted criteria.

- Report 4 (EES, January 2004):
  - A long-term employee of the chicken farm was not aware of any major disease outbreak at the site;
  - The exterior of farm sheds was sprayed with a mixture of Longlife 250S disinfectant and diesel fuel to reduce the spread of viruses, bacteria and fungi. Formaldehyde (strong disinfectant) was also readily used in between poultry batches to sterilise the sheds (internally and externally);
  - The litter from within the poultry sheds, including manure, sawdust and water was spread directly around the sheds;
  - The dam "behind" Farm 10 was a former location of a series of settlement ponds used in the composting/transpiration process. Liquid from the underground composting tank was released to these ponds located north east of the duck sheds. At the time of inspection by EES, the dam was dry, however the colour and growth of the grass was considered indicative of nutrient enrichment; and
  - Dead birds and rotten eggs were originally buried at the site, with only disease-ridden birds being incinerated. Owing to complaints from surrounding properties, all dead birds were incinerated from circa 2000. Former employees indicated that the incinerator ash was disposed of both on and off site, while dead bird burials occurred primarily in two areas.
- Report 5 (DP, June 2004 – Partial report):
  - Surface water samples were collected from the site with results for ammonia, nitrate and iron exceeded the ANZECC recreational guidelines, while nitrate, nitrogen, phosphorous and metals (copper and zinc) exceeded the ANZECC ecosystem guidelines. DP indicated that the quality of surface waters discharging from the site were better than that entering the site with respect to microbiological indicator contaminants. One dam sample had extremely high bacterial contamination which DP considered the likely result of surface water run-off from the upslope former duck farm (Farm 10 – off site). DP recommended that signs be erected downslope of this dam to warn the public about possible health risks from bacterial contamination.
- Report 7 (DP, June 2004):
  - Fifty six poultry sheds were visually inspected for possible sources of microbes that may impact on human health during demolition. Microbiological analysis was completed on five farms based on the observations, and, based on the results, it was recommended that additional cleaning should be completed for Farms 2, 5, 12 and 17. Seventeen residences at the site were also inspected, however, recommendations for cleaning were not raised.

- Report 8 (DP, June 2004 – Partial report):
    - Staining was identified at the base of timber poles at Farms 9 and 10, and elevated hydrocarbon concentrations identified at Shed D at Farm 9. It was considered possible that that hydrocarbon products may have been used to preserve shed timbers and that elevated hydrocarbon levels in near surface soils may be present where sheds are constructed with timber poles (i.e. Farms 9,10 and 19). It is noted that the location which DP calls Farm 19 is part of JBS&Gs Farm 13, which is south of the subject site (i.e. Proposed E4 area).
- Report 9 (EES, August 2004 – Partial report):
    - It was proposed to install four new groundwater monitoring wells at the site, including in the vicinity of the northern dumping ground, the south eastern dumping ground, Farm 10 and down slope of the truck wash. The four existing wells (as identified in Report 2 (EES, September 2003)) were also to be sampled.
- Report 14 (Banksia EOHS, June 2008):
    - The report provided was a UST removal letter (single UST), however it did not indicate where the UST was removed from other than the "Black Hill farm site". This UST appeared to be separate to the two USTs located adjacent to the workshop area. Validation samples were below the adopted "sensitive" land use criteria, with the exception of the northern wall sample for Xylene. Water accumulated in the base of the tank pit excavation also had a slight sheen.
- Report 15 (Environ, August 2009):
    - Among other items, this document identifies the need to remove the two USTs located adjacent to the workshop area. This would indicate that the single UST identified in report 14 (Banksia EOHS, June 2008) was separate to the workshop USTs.
- Report 16 (ESP, November 2011)
    - ESP provided a clearance letter indicating that flat fibrous cement sheeting (FFCS) had satisfactorily been remediated, relocated and encapsulated from Farm 10 at the site. It should be noted that Farm 10 does not form part of the subject site (i.e. within proposed E4 area).
- Report 17 (Environ, February 2012)
    - Environ prepared a EMP to assist in the management of buried waste within the Northern Dump Area and Farm 10 (off-site). The Southern Dump Area is also referenced, however, it is noted that the EMP was not specifically developed for this area;
    - Remediation of the Northern Dump Area was completed by capping with a low permeability clay cap, the material of which was sourced from the site. The cap is a minimum 500 mm in thickness and covers the extent of the burial areas; and
    - Test pitting of the Southern Dump Area by Environ indicated that poultry waste was located below a cover of at least 1.0 m of clay.

The reports referred to above are considered to represent anecdotal information only. The site investigation process has considered the information provided above when developing the CSM, however, reliance has only been placed upon the historical reports with analytical data which is adequately reliable (see **Section 3.6**).

3.6 Historical Data

As part of a review of the above listed documents, JBS&G identified historical soil, surface water and groundwater data. Full reports which had reliable tabulated data, including the attached laboratory reports, have been summarised below. A detailed data reliability assessment is presented in **Appendix M** (for the NAA 2013 and JBS&G 2017 reports only) and the data has been found to be adequately reliable, noting that subsequent investigations conducted by JBS&G have found similar contamination issues (i.e. this supports the reliability of the historical data). The remaining reported data was considered too old to be relevant to the current investigation and has been provided for refence only. The historic data has been provided in **Table HA1** (soil – Industrial Zoned Areas), **Table HA2** (soil – E2 Zoned Areas) and **Table HB** (water) in the **Historic Results Summary Tables Section**. The data has been considered against assessment criteria noted in **Section 6** as part of informing the working CSM (see **Section 5**):

- Environmental & Earth Sciences, *Environmental Site Assessment*, September 2003 (Report 103077BH) – referred to as EES, ESA, 2003 within tables;
- Dr Edla Arzey, *Report on Microbiological Assessment of Lot 131, DP 234203, Blackhill Road, Blackhill*, *NSW,* June 2004 – referred to as DP, MRA, 2004 within the tables;
- Noel Arnold & Associates (2013), *Site Contamination Investigation Diocese of Mainland-Newcastle Former Steggles Poultry Farm Blackhill Road, Black Hill,* September 2013 – referred to as NAA, SCI, 2013 within the tables; and
- JBS&G (2017), *Contaminated Land Due Diligence Assessment, Former Steggles Poultry Farm, Blackhill Road, Black Hill, NSW* – referred to as JBS&G, DD, 2017 within the tables.

A comparison to the criteria adopted as part of this investigation, as summarised in **Section 6**, was made, with the results being as follows:

- Numerous exceedances for EILs were identified including three for copper (ranging from 100mg/kg to 200mg/kg) and nine for zinc (ranging from 280mg/kg to 2,400mg/kg). These exceedances are not considered an issue based on the proposed industrial development, where the majority of the site is to be reworked (i.e. cut/fill) and the potential for vegetation which is sensitive to relatively isolated EIL exceedances is likely to be limited. This is further discussed in **Section 7.5**;
- One exceedance of the ESL and Management Limit for TRH fraction >C16-C34 (4,900mg/kg). This was recorded within AEC W, which is not in the current site being investigated;
- Multiple exceedances of the NSW EPA Biosolids criteria for both E. Coli and Total Coliforms. Ten exceedances were identified for E. Coli ranging from 110MPN/G to >160,000MPN/G, while 13 exceedances for Total Coliforms were identified ranging from 14,000MPN/G to >160,000MPN/G.
    - It should be noted that eight E.Coli and two Total Coliforms exceedances were from the DP investigation which sampled soils surrounding residences and within chicken sheds prior to demolition. Given the removal of these structures and the time which has since elapsed, these results are not considered indicative of current site conditions. This data rather highlights a potential source of contamination and historic biological contaminant levels; and
    - Of the remaining results, exceedances were identified in the following AECs (exceedances single unless otherwise stated): E1 (two exceedances), E2, K, L1, adjacent Transpiration 1, Transpiration 2 (three exceedances), and Farm 10 (offsite).
- Multiple exceedances of the Maintenance of Ecosystems (Fresh Water 95%) were identified both in surface water and groundwater samples:

- Surface water: Two samples exceeded copper (ranging from 0.002mg/L to 0.004mg/L), four samples for zinc (ranging from 0.009mg/L to 0.015mg/L), and one sample for ammonia (3.3mg/L); and
- Groundwater: One sample for nickel (0.014mg/L), two samples for zinc (ranging from 0.026mg/L to 0.047mg/L), and two samples for ammonia (ranging from 3.3mg/L to 3.5mg/L),

- Detectable E. Coli concentrations were identified within two groundwater samples and six surface water samples, which exceeds the adopted criteria.

3.7 Missing Historical Reports

The reports provided to JBS&G included reference to additional historical reports that were not provided for review. A summary of these documents is listed below, noting that limited information was available and that subsequent references may be cited incorrectly:

1. PPK, *Donaldson Coal Mine Environmental Impact Statement*, February 1998;
2. Parsons Brinckerhoff, *Six Monthly Water Quality Monitoring Report for Donaldson Coal Pty Ltd*, July 2002;
3. Earth & Environmental Sciences, *Preliminary Site Investigation*, June 2003 (Report 103077BH);
4. Environmental & Safety Professionals Pty Ltd, *Risk Assessment Asbestos Materials Survey*, March 2004;
5. Environmental & Safety Professionals Pty Ltd, *Priority 1 and 2 Asbestos Register*, March 2004;
6. Environmental and Earth Sciences Pty Ltd, *Microbiological Assessment*, February 2005 (Ref: 104082);
7. Environmental and Earth Sciences Pty Ltd, *Environmental Site Assessment*, September 2005 (Ref: 1104082b);
8. Douglas Partners Pty Ltd, *Environmental Assessment*, Lot 131, DP234203, September 2007 (Project 31792); and
9. Noel Arnold & Associates Pty Ltd, *Review of Environmental Contamination Reports*, April 2012, (Ref: C107466:J109183).

The reports noted above are likely to provide additional information regarding the contamination status of the site. JBS&G understands that the client has made numerous attempts to obtain the historical reports directly from the corresponding consultants and the previous site owner.

4. Site History

4.1 Aerial Photographs

Aerial photographs from 1954 1976, 1983, 1993 were obtained from the Department of Land and Property Information. Aerial photograph from 2007 was obtained from Google Earth and the 2010 and 2018 imagery was obtained from Nearmap with copies of the images included as **Appendix D**. Aerial photographs have been summaries below.

1954 At this time, the site appeared thickly vegetated with a road cutting through the site from the northwest to southeast. Dense vegetation was also observed for the land surrounding the site to the west, north and east. The area to the south appeared to be cleared. Roads running in an approximate east to west direction were observed at the norther and southern boundaries of the site.

1976 Considerable change appears to have occurred onsite at some point after 1954. The thick vegetation has been mostly cleared in the north eastern portion of the site and notably thinned in the western portion. Farmland was observed with construction of approximately 41 chicken sheds across the site and an additional 12 smaller sheds in the western portion. Smaller residential sized buildings were observed near the southern boundary and within the western portion of E4. Eight dams (latter referred to as the infilled dams), one of which was crescent shaped, were observed within the south western portion of the site. Large disturbed areas were noted in the west, southwest and central-north portions. It is unclear why these areas have been disturbed. The road dissecting the site from the northwest to the south east is still discernible, with additional roads now connecting the various farms across the site.

A road running along the northern boundary was observable. Land to the west of the site remains vegetated, whereas land to the east has been mostly cleared.

1983 At this time, the site appears similar to the previous image. An additional 15 chicken sheds have been constructed (12 in the northwest portion, two in the southwest and one in the north). Building footprints of chicken sheds were noted near the eastern boundary (this is later referred to as Farm 19). It is unclear if the sheds are yet to be built or have been demolished. More vegetation in the western portion has been cleared, with large areas unsealed and covered by grass. The disturbed areas noted in the previous image were noted to still be easily discernible, although now covered by grass. One location in the north western portion appeared to be further disturbed.

Surrounding land appears mostly consistent with the previous aerial photograph. A corridor with overhead electricity running along the eastern boundary was observable. Revegetation to the southeast of the site appeared to have occurred

1993 At this time, the site appeared relatively consistent with the previous image. The dams in the south western portion have been infilled. An area of exposed soil that appears to have been disturbed was noted near the southern boundary. Part of one of the areas in the northern portion of the site, previously noted as disturbed, was observed to have been revegetated. Unknown material, potential dumping of waste, was noted in part of one of the previously disturbed areas in the central north portion.

Surrounding land appears mostly consistent with the previous image. An highly reflective are, potentially and excavation/mounded area, was observed to the east of the site.

2007 At this time, the site appeared to consist of bushland (predominantly in the northern and southern portions of the site) and farm land with approximately 20 chicken sheds

observed remaining. Approximately 30 chicken sheds appeared to have been demolished with the building footprints still observable. Approximately 5 remaining residential buildings were sobered across the site. The remainder of the site appeared to be unsealed and covered in grass.

2010 At this time the chicken sheds observed in the previous 2007 aerial photograph had been demolished. The residential buildings remained at the site. A disturbed area with exposed soil was observed within the central north portion, previously noted as being historically disturbed. No other changes were observed at the site from the previous 2007 aerial photograph.

2018 The site appears consistent with the previous 2010 aerial image. No exposed soil was observable, with site predominantly unsealed and covered in grass.

4.2 Title Details

A review of historical title records was conducted on behalf of JBS&G by Scott Ashwood Pty Ltd. The search results are presented in **Appendix E**.

Since 2003, the site was owned by The Trustees of the Roman Catholic Church for the Diocese of Maitland Newcastle. Between 1967 and 1969 until 2003, the site has been owned by Steggles Pty Limited (now Steggles Poultry Pty Limited). Between 1934 and 1967 the site was owned by a timber merchant. From 1872 until 1934 the site was owned by The Scottish Australian Mining Company Limited.

The nature of the mining related operations may become clearer once the pending aerial photographs are received. It is currently assumed that the site formed part of a historical buffer area.

4.3 EPA Records

A search of the NSW EPA's public register maintained under the Protection of the Environment Operations Act 1997 (POEO Act) was undertaken for the subject site and surrounding properties. The results of the search are presented in **Appendix F**. The search identified that there were no current or former prevention, clean-up or prohibition notices for the site and immediate surrounds.

A search of the EPA's public contaminated land register (**Appendix F**) was also undertaken. The search identified that there have been no notices issued under the Contaminated Land Management Act 1997 (CLM Act) for the site.

The site has not been notified to the EPA as containing significant contamination.

4.4 Australian and NSW Heritage Register

A search of the Australian Heritage Trust database and the NSW Heritage Inventory was undertaken and records are included in **Appendix G**. No results were identified for the site.

4.5 WorkCover Dangerous Goods Database

A dangerous goods licence search of the stored chemical information database of WorkCover NSW could not be undertaken at the time of the preparation of this report due to the unavailability of supporting documentation required from the current registered owner of the site.

4.6 Council Information – Planning Certificates

A Cessnock City Council Planning Certificate under Section 149 of the Environmental Planning and Assessment Act 1979 (dated 15 January 2018) was provided for the site. The information pertaining to the site is summarised below, with the full planning certificate available within **Appendix H**.

The site is zoned as IN2 Light Industrial and E2 Environmental Conservation under the Cessnock Local Environmental Plan 2011, noting the area to the south of the site is zoned E4 Environmental Living. The site is subject to a range of SEPPs, in addition to the Cessnock Development Control Plan 2010.

The site does not comprise critical habitat as declared under Part 3 of the threatened Species Conservation Act, nor is it a conservation area or item of environmental heritage under the Cessnock Local Environmental Plan. The site is not affected by flood development controls, council policy, Tree preservation order and road widening or road realignment. The land is not reserved for acquisition.

The site is proclaimed to be a mine subsidence district as defined within Section 15 of the Mine Subsidence Compensation Act 1961. Some of the site is identified as bushfire prone land as defined in the Environmental Planning and Assessment Act 1979. Council records indicate the site is subject to noise exposure.

Within the meaning of the Contaminated Land Management Act 1997 the site is:

- Not significantly contaminated land;
- Not subject to a management order;
- Not the subject of an approved voluntary management proposal;
- Not the subject of an ongoing maintenance order; and
- Not the subject of a site audit statement.

No statement about asbestos containing material was made within the planning certificate.

4.7 Per- and Poly-fluoroalkyl Substances (PFAS)

A review of the NSW EPA PFAS investigation program did not identify a listing for the site or properties surrounding the site. Following a review of the historical use of the site, it is considered unlikely that PFAS would have been used or stored at the site. No evidence of historical fires has been identified which would have potentially required firefighting activities. No evidence of fire training areas has been identified.

5. Working Conceptual Site Model

The following section details a working CSM for the site, based on the site history review conducted and the historical reports provided for review. This CSM has been further refined in **Section 9** following the completion of additional investigation works.

5.1 Areas of Environmental Concern

Areas of environmental concern (AECs) and associated contaminants of potential concern (COPCs), as identified through desktop review of site history, are provided in **Table 5.1**, below.

Table 5.1 Areas of Environmental Concern and Associated Contaminants of Potential Concern

Area of Environmental Concern (AEC)	Contaminant of Potential Concern (COPC)
Fill materials used for historical levelling and backfilling of dams at the site	TRH, BTEX, PAHs, VOCs/SVOCs, Heavy Metals, Asbestos
Poor demolition of former buildings	Asbestos and Lead
Burial pits for waste including animal carcasses	TRH, BTEX, PAHs, VOCs/SVOCs, Heavy Metals, Asbestos, ground gases (i.e. methane, ammonia)
Petroleum storage and use (e.g. former UST, AST areas)	TRH, BTEX, PAH
Transpiration pits and runoff from farm areas	Nutrients and biologicals (including E. Coli)
Dam sediments (seven dams in the south western portion of the site)	Nutrients and biologicals (including E. Coli), Heavy Metals
Operation of incinerator on site and the spreading of ash	PAHs
Chicken shed poles treated with hydrocarbons as a timber preservative	TRH, BTEX, Creosotes
Farm areas that had Longlife 250S, formaldehyde and diesel fuel as a disinfectant applied	TRH, BTEX, formaldehyde
Treatment of farm associated residential buildings, including storage of chemicals	OCPs, PCBs

5.2 Potentially Contaminated Media

Potentially contaminated media at the site include:

- Fill;
- Natural Soils;
- Sediment in Dams;
- Surface Water; and
- Groundwater.

Fill is considered a potentially contaminated medium based on the unidentified sources of fill material potentially imported to the site historically to backfill/raise topographic features and the potential for fill material at the site to contain waste materials and aesthetically impacted waste/soil associated with historical activities. This would also include the investigation associated with burned waste (previously identified) and the possibility of burial areas for various animals (e.g. chickens).

Natural soils are considered a potentially contaminated medium based on the possible leaching of contaminants from fill materials.

Based on the leachability of identified COPCs and the limited available groundwater data, groundwater at the site is considered a potentially contaminated medium. As with the natural soils, the potential for contamination of groundwater will depend upon the actual nature, occurrence and characteristics of contamination within the overlying fill material and/or the natural soils. In addition, it is understood that underground infrastructure is located at the site which has potential to have migrated through the soil and impact the underlying groundwater. However, it is pertinent

to note that historical groundwater wells appear to have targeted perched water above bedrock and the likely beneficial uses of the aquifer are likely to be limited.

5.3 Potential for Migration, Exposure Pathways and Receptors

Contaminants generally migrate via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- The site topography, geology, hydrology and hydrogeology.

The potential contaminants of concern as identified as part of the site history review are generally in either a solid form (e.g. heavy metals, asbestos, etc) or liquid form (e.g. fuel, solvents, etc).

The potential for contaminant migration via windblown dust and for surface water intrusion is considered moderate as the site is currently unsealed. Following the completion of the proposed development, it is expected that migration via windblown dust is considered low as the majority of the site is proposed to be sealed.

There is the potential for migration of contamination via groundwater movement, should contamination extend to the depth of the groundwater. However, with consideration of the underlying geology and the expected depth to the regional groundwater, it is considered that migration of contaminants off-site via groundwater is unlikely.

There is potential for surface contamination to migrate offsite through runoff during heavy rainfall.

5.4 Potential Exposure Pathways

Based on the COPCs identified in various media as discussed above, the exposure pathways for the site include:

- Dermal;
- Ingestion; and
- Inhalation.

Due to the presence of potentially impacted soil/fill on ground surfaces dermal exposure must be considered a potential exposure pathway.

The potential for ingestion of soil is considered a potential pathway as the site is unsealed, and should dust be generated during redevelopment, ingestion must also be considered a potential exposure pathway during future construction works and for neighbouring properties.

Groundwater is not anticipated to be extracted under the proposed land-use. One creek is located at the site, with a second immediately to the south. It is considered that the ingestion of groundwater or surface water is unlikely. While it is considered unlikely that the surface water or groundwater would be used for primary recreation, there is a potential exposure pathway and therefore dermal contact and ingestion of the surface water should be considered.

5.5 Receptors

Potential receptors of environmental impacts present within the site which will require to be addressed with respect to the suitability of the site for the proposed industrial land use include:

- Future industrial site users and temporary occupants of the site;

- Excavation/construction/maintenance workers conducting future civil works as part of site establishment and ongoing future maintenance;
- Current and potential future mining workers below and surrounding the site;
- Neighbouring site users, noting that the areas surrounding the site are generally vacant bushland or mining related land (i.e. low potential for exposure by sensitive human receptors);
- Surrounding users of groundwater, noting that registered users of groundwater within 1km of the site are limited to monitoring bores only;
- Terrestrial flora and fauna, noting that impacts to these receptors are being assessed by others as part of an EIS; and
- Aquatic flora and fauna, noting that impacts to these receptors are being assessed by others as part of an EIS.

The E2 Environmental Conservation Area in the northern portion of the site represents a historical receptor, with surface water representing the primary pathway of concern.

5.6 Preferential Pathways

For the purpose of this assessment, preferential pathways are natural and/or man-made pathways that result in the preferential migration of COPCs as either liquids or gases. Man-made preferential pathways may occur at the site associated with excavated and backfilled areas and within underground services infrastructure potentially installed below the site.

Fill materials are anticipated to have a higher permeability than the underlying natural soil and/or bedrock. Commonly, material used to backfill services trenches and features such as former drainage channels is less compacted than the surrounding soil profile and is therefore of higher permeability. This may promote vertical and/or lateral movement or waters.

The burial pits are also anticipated to have a higher permeability than surrounding native soils and bedrock and as such may be a preferential pathway for water infiltration or vapour accumulation. The buried waste, including poultry carcasses, was likely pushed into an excavation and covered with soil, with very little compaction occurring. Furthermore, overtime, it is likely the poultry carcasses would have compressed and/or decayed leaving void space, increasing the permeability of the pits. Recent capping of the burial pits may have reduced the potential for water to infiltrate, but also for vapour to escape.

Historical reports suggest the presence of a perched aquifer upon underlying bedrock. Perched water migration may have preferentially been on top of the rock layer, with the exception of any vertical migration pathways created as a result of mine subsidence.

The surface water bodies which intersect the site are likely to have been a historical preferential pathway for migration of contaminants which were entrained in surface water runoff. While the onsite creeks were noted to be dry during the JBS&G investigations in 2017 and 2018, erosion was identified within portions of the creek, which is evidence that significant water flows occur through the site during substantial rain events.

Underground coal mining is known to have occurred beneath and surrounding the site. These works are likely within the region of the true groundwater and as such may be a preferential pathway for groundwater flow.

5.7 Data Gaps

Based upon consideration of NAA (2013) and JBS&G (2017), 196 test pits have been excavated across the site. Based upon an AS4482.1 recommended sampling density of 11 points / hectare and a total area of approximately 220 hectares, the combined NAA/JBS&G sampling density represents

approximately 8% of the density which would be required to meet default AS4482.1 recommendations based upon a square grid-based sampling program. The following table provides a summary of the data collected prior to this report for each identified area of concern. Comment has been made with respect to whether data gaps are critical for the preparation of a RAP based upon the position that the RAP should identify each of the likely broad types of contamination requiring remediation.

Table 5.2 Areas of Environmental Concern Data Gaps

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
Farms					
Farm 1	10,000	2 central locations (2 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 2	16,500	6 locations on an approximate SW-NE transect (3.64 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 3	10,000	5 locations on two general SW-NE transects (5 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 4	16,500	6 locations on a SW-NE transect (3.64 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 5	16,500	6 locations on a SW-NE transect (3.64 per hectare) Asbestos data only for JBS&G locations.	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 6 including historical AOI L1	16,500	7 random locations (4.24 per hectare)	One total coliforms exceedance of NSW EPA Biosolids criteria	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 7	10,000	2 locations west and east (2 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection. Extent of contamination associated with construction and general waste identified at western rear of sheds.	Increased sampling density in accordance with relevant guidance
Farm 8	10,000	1 location within building footprint (1 per hectare) (excluding historical AOI J and transpiration area 2)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 9	16,100	5 locations on a general N-S transect (3.11 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection and shed post	Increased sampling density in accordance with relevant guidance

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
				preservation. NA assuming contamination limited to asbestos and isolated OCPs	
Farm 10	This farm is located outside the site and will not be further assessed				
Farm 11	17,500	8 random locations (4.57 per hectare)	One total coliforms exceedance of NSW EPA Biosolids criteria	Extent of contamination unclear. Coliform and E.coli contamination identified at single location. Possible burial area located to the west. Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 12	14,500	7 random locations (4.83 per hectare)	Three total coliforms exceedances of NSW EPA Biosolids criteria	Extent of contamination associated with former pig farm unclear. ACM, coliform and E.coli contamination identified. Possible nutrient contaminations associated with truck wash. Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Farm 13	This farm is located outside the site and will not be further assessed				
Farm 14	20,500	4 central locations (1.95 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection. NA assuming contamination limited to asbestos and isolated OCPs	Increased sampling density in accordance with relevant guidance
Farm 15	12,100	8 locations on two SW-NE transects (6.61 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection. NA assuming contamination limited to asbestos and isolated OCPs	Increased sampling density in accordance with relevant guidance
Farm 16	22,800	5 locations on an approximate S-N transect (2.2 per hectare)	Criteria exceedances not identified.	Extent of contamination associated with organic waste identified within	Increased sampling density in accordance with relevant guidance

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
				historical AOI G unclear. Possible use of hydrocarbons during shed disinfection.	
Farm 17	16,500	3 locations in north west/west of farm (1.81 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection. NA assuming contamination limited to asbestos and isolated OCPs	Increased sampling density in accordance with relevant guidance
Farm 18	23,500	3 random locations (1.27 per hectare)	Criteria exceedances not identified.	Possible use of hydrocarbons during shed disinfection. NA assuming contamination limited to asbestos and isolated OCPs	Increased sampling density in accordance with relevant guidance
Farm 19	21,800	No sample locations	Criteria exceedances not identified.	Nature and extent of contamination unclear. Possible asbestos contamination associated with potential demolition. Possible use of hydrocarbons during shed disinfection.	Increased sampling density in accordance with relevant guidance
Waste dumps					
Western Dump Area	3,500	6 random locations (17.14 per hectare)	Criteria exceedances not identified.	NA	Increased sampling density in accordance with relevant guidance
Northern dump area (including DP (2007) Historical AOI K and Z)	112,000	19 random locations (1.70 per hectare)	One total coliforms exceedance of NSW EPA Biosolids criteria. ACM identified	NA	Extent of individual contaminants
Southern Dump Area A (DP,2007)	12,000	5 random locations (4.17 per hectare)	One total coliforms exceedance of NSW EPA Biosolids criteria. Construction and general waste identified	NA assuming contamination limited to construction waste asbestos and biological impacts	Extent of biological contamination
Southern Dump Area B (DP,2007)	This feature is located outside the site and will not be further assessed				

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
Transpiration areas					
Transpiration Area 1 (DP,2007)	5,000	1 location (2 per hectare)	One total coliforms exceedance of NSW EPA Biosolids criteria.	NA assuming contamination limited to nutrient impacts	Increased sampling density in accordance with relevant guidance
Transpiration Area 2 (DP,2007)	1,500	4 locations (26.67 per hectare)	Three total coliforms exceedances of NSW EPA Biosolids criteria. Visual signs of biological waste	NA assuming contamination limited to construction and general wastes and nutrient impacts.	Increased sampling density in accordance with relevant guidance
C (DP, 2007)	This feature is located outside the site and will not be further assessed				
Ponds					
Infilled Pond 1	1,100	No available data	No available data	Nature of contamination within infilled pond unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	Increased sampling density in accordance with relevant guidance.
Infilled Pond 2	1,150	No available data	No available data	Nature of contamination within infilled pond unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	Increased sampling density in accordance with relevant guidance.
Infilled Pond 3	3,000	No available data	No available data	Nature of contamination within infilled pond unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	Increased sampling density in accordance with relevant guidance.
Infilled Pond 4	2,000	No available data	No available data	Nature of contamination within infilled pond unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	Increased sampling density in accordance with relevant guidance.
Infilled Pond 5	800	No available data	No available data	Nature of contamination within infilled pond	Increased sampling density in

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
				unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	accordance with relevant guidance.
Infilled Pond 6	3,700	No available data	No available data	Nature of contamination within infilled pond unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	Increased sampling density in accordance with relevant guidance.
Infilled Pond 7	3,700	No available data	No available data	Nature of contamination within infilled pond unclear. Potentially filled with imported materials. Potential for sediments which require unique handling.	Increased sampling density in accordance with relevant guidance.
Other areas (DP,2007)					
Q (Workshop) (DP,2007)	5,100	1 location (1.96 per hectare)	Criteria exceedances not identified. Identified ACM and possible incineration material	NA assuming contamination limited to asbestos and isolated OCPs. Potential nutrient impact maybe associated with the presence of an incinerator.	Increased sampling density in accordance with relevant guidance
B1 (Boar shed) (DP,2007)	This feature is located outside the site and will not be further assessed				
B2 (DP,2007)	This feature is located outside the site and will not be further assessed				
D1 (DP,2007)	1,700	1 location (5.88 per hectare)	Criteria exceedances not identified. E Coli/ Coliforms identified by NAA	NA assuming contamination limited to nutrients and biologicals	Increased sampling density in accordance with relevant guidance
D2 (DP,2007)	500	2 locations (40 per hectare)	Criteria exceedances not identified.	NA assuming contamination limited to nutrients and biologicals	Increased sampling density in accordance with relevant guidance
E4 (DP,2007)	3,000	2 locations (6.66 per hectare)	Criteria exceedances not identified	NA assuming contamination limited to asbestos and isolated OCPs.	Increased sampling density in accordance with relevant guidance
E5 (DP,2007)	1,500	4 locations (26.67 per hectare)	Criteria exceedances not	NA assuming contamination	Increased sampling density in

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
			identified. Visual signs of biological waste	limited biological and general waste.	accordance with relevant guidance
F1 (DP,2007)	700	5 locations (71.43 per hectare)	Criteria exceedances not identified. Construction and general waste identified	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
G (DP, 2007)	900	1 location (11.1 per hectare)	Criteria exceedances not identified. Organic waste identified	NA assuming contamination limited organic and general waste.	Increased sampling density in accordance with relevant guidance
H1 (DP,2007)	2,400	6 locations (25 per hectare)	Criteria exceedances not identified. Construction and general waste identified	NA assuming contaminations limited to asbestos and construction and general waste	Increased sampling density in accordance with relevant guidance
H2 (DP,2007)	400	3 locations (75 per hectare)	Criteria exceedances not identified. Surficial ACM identified	NA assuming contaminations limited to asbestos.	Increased sampling density in accordance with relevant guidance
I (DP,2007)	2,200	2 locations (9.10 per hectare)	Criteria exceedances not identified. Surficial ACM identified	NA assuming contaminations limited to asbestos.	Increased sampling density in accordance with relevant guidance
J (DP,2007)	300	2 locations (66.67 per hectare)	Criteria exceedances not identified. Visual signs of biological waste	NA assuming contaminations limited to nutrients and biological impacts associated with burial area	Increased sampling density in accordance with relevant guidance
Chemical Store (DP,2007)	600	2 locations (33.33 per hectare)	Criteria exceedances not identified. ACM identified by NAA, but not by JBS&G	NA assuming contaminations limited asbestos and isolated OCPs	Increased sampling density in accordance with relevant guidance
M1 (DP,2007)	3,500	4 locations in an approximate SW-NE transect (11.4 per hectare)	Criteria exceedances not identified. Construction waste identified by JBS&G and organic waste identified by NAA. E Coli/ Coliforms identified by NAA	NA	Extent of individual contaminants
M2 (DP,2007)	5,300	3 locations (5.6 per hectare)	Criteria exceedances not identified. Construction waste identified by JBS&G and organic waste identified by NAA	NA	Extent of individual contaminants (construction waste and asbestos, organic waste, coliform and E.coli)
L2 (DP,2007)	716	No available data	No chemical data	NA	-

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
L3 (DP,2007)	1210	4 locations in an approximate N-S transect (33 per hectare)	Criteria exceedances not identified.	NA	-
Y (DP, 2007)	-	No available data	No chemical data	NA assuming road based used across whole site	-
Other areas (JBS&G,2017)					
JBS&G AOI – 1	485	1 location (20.6 per hectare)	Criteria exceedances not identified. ACM identified by JBS&G	NA assuming contaminations limited to asbestos	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 2	1,317	4 locations (30.4 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 3	948	2 locations (21.1 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 4	886	1 location (11.3 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 5.1	703	1 location (14.2 per hectare)	Criteria exceedances not identified. Minor construction waste	NA assuming contaminations limited to construction waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 5.2	643	1 location (15.6 per hectare)	Criteria exceedances not identified. Minor construction waste	NA assuming contaminations limited to construction waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 7	197	2 locations (101.5 per hectare)	Criteria exceedances not identified. ACM identified by JBS&G	NA assuming contaminations limited to asbestos	Increased sampling density in accordance with relevant guidance
JBS&G AOI - 8	2,284	4 locations (17.5 per hectare)	Criteria exceedances not identified. ACM identified by JBS&G	NA assuming contaminations limited to asbestos	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 9	105	2 locations (190.5 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 10	40	2 locations (500 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
JBS&G AOI – 11	63	No available data	No chemical data. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 12	1,659	2 locations (6.0 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 13	202	2 locations (99.0 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 14.1	791	1 location (12.6 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction, organic and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 14.2	643	1 location (15.6 per hectare)	Criteria exceedances not identified. Assumed construction waste	NA assuming contaminations limited to construction, organic and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 14.3	580	No available data	No chemical data. Assumed construction waste	NA assuming contaminations limited to construction, organic and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 14.4	675	No available data	No chemical data. Assumed construction waste	NA assuming contaminations limited to construction, organic and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 14.5	3,070	3 locations (9.8 per hectare)	Criteria exceedances not identified. Minor construction and general waste	NA assuming contaminations limited to construction, organic and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 14.6	858	6 samples (69.9 per hectare)	Criteria exceedances not identified. Surficial ACM identified by NAA and construction waste by JBS&G	NA assuming contaminations limited to construction and asbestos waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 15	177	1 location (56.5 per hectare)	Criteria exceedances not identified. Construction and	NA assuming contaminations limited to construction and organic waste	Increased sampling density in accordance with relevant guidance

Area	Approximate Area (m^2)	Available Data	Previously identified impacts	Data Gaps – Critical to Inform RAP	Data Gaps – Not Critical to Inform RAP
			organic waste identified		
JBS&G AOI – 16	131	1 location (76.3 per hectare)	Criteria exceedances not identified. Visual signs of biological waste	Extent of biological waste poorly delineated to the west, south and north.	Increased sampling density in accordance with relevant guidance.
JBS&G AOI – 17	259	2 locations (77.2 per hectare)	Criteria exceedances not identified. Minor construction and general waste.	NA assuming contaminations limited to construction and general waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 18	1,440	2 locations (101.5 per hectare)	Criteria exceedances not identified. Surficial ACM identified by NAA	NA assuming contaminations limited to asbestos waste	Increased sampling density in accordance with relevant guidance
JBS&G AOI – 19	101	2 locations (101.5 per hectare)	Criteria exceedances not identified. Minor general waste.	NA assuming contaminations limited to general waste	Increased sampling density in accordance with relevant guidance

A review of the areas of environmental concern identified numerous data gaps generally associated with the Farm 19 area (eastern portion of the site), the seven infilled ponds (south western portion of the site) and the potential use of hydrocarbons in the farm areas (both as a pole treatment and shed disinfectant). As these areas are considered critical for the development of the RAP, additional intrusive works were considered necessary. This has been provided in **Section 7**.

As groundwater contamination has been identified, the nature and extent of groundwater contamination must be adequately defined. At the time of this report, JBS&G is only aware of relatively limited historical groundwater investigations in the vicinity of the northern dump area. Additional groundwater investigations will be required across the site, particularly in the vicinity of dump areas and transpiration areas. Based on the available information, it is considered that these investigations should initially focused upon perched water above the bedrock. The need to investigate the water table aquifer would be reassessed based upon the findings of the perched water investigations, noting that considering the regional hydrogeological information this aquifer is likely to occur at significant depths (i.e. limits potential for vertical migration of contamination) and have a relatively low range of beneficial uses. The water table aquifer is also likely to be depressed as a result of nearby mining activities. Considering that the proposed earthworks will most likely disturb the majority of potential source materials across the site (i.e. contaminated soils), it is considered the groundwater investigations can be completed as part of implementing the RAP.

Surface water data has not been collected within the last 5 years. Additional surface water data is required in order to provide an assessment of current conditions. However, it is considered that this data can be collected as part of implementing the RAP.

6. Assessment Criteria

6.1 Regulatory Guidelines

Development of site assessment criteria, including a review of previous report data, was undertaken with consideration to aspects of the following guidelines, as relevant:

- *National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended 2013* (the ASC NEPM);
- Office of Environment and Heritage, 1997/2011, *Guidelines for Consultants Reporting on Contaminated Sites*;
- Department of Environment and Conservation NSW, March 2007, *Guidelines for the Assessment and Management of Groundwater Contamination*;
- NSW Government, 2014, *Managing Asbestos in or on Soil*;
- NSW EPA, November 2014, *Waste Classification Guidelines Part 1: Classifying Waste*;
- NSW EPA, September 2015, *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997*;
- NSW EPA, October 2016, *Addendum to the Waste Classification Guideline (2014) – Part 1: classifying waste*; and
- NSW EPA, October 2017, *Contaminated Land Management (Guidelines for the NSW Site Auditor Scheme)*.

6.2 Assessment Criteria – Soil Contamination

Concentrations of contaminants in the soil across the site were compared against published land use criteria as sourced from the following:

- ASC NEPM Health based Investigation Levels (HILs) for commercial/industrial land use – HIL D;
- ASC NEPM Health Screening Levels (HSLs) for petroleum hydrocarbons considering potential for vapour intrusion, coarse grained soil for commercial/industrial land use (HSL D);
- AEC NEPM HSLs for asbestos levels in soil for commercial/industrial land use (HSL D) including friable asbestos and asbestos fines (AF/FA);
- CRC Care Direct Contact HSLs for direct contact with petroleum hydrocarbons for commercial/industrial land use (HSL D) and for Intrusive Maintenance Workers;
- ASC NEPM Ecological Investigation/Screening Levels (EILs/ESLs) for coarse grained soils for commercial/industrial land use;
- Management limits presented in the ASC NEPM for commercial/industrial land use; and
- NSW EPA Use and Disposal of Biosolids Products, criteria for Stabilisation Grade A Microbiological Standards.

The EILs were derived using site specific data reported for pH, cation exchange capacity (CEC), and clay content, consistent with the ASC NEPM.

The results of asbestos analysis were assessed in general accordance with the HILs provided in the ASC NEPM.

The only exception to the above is the Farm 9 area, which represents the only identified AEC within the proposed E2 area. Results for this area have been compared to criteria based upon open space / recreational use (i.e. HIL C) and areas of ecological significance (i.e. EILs/ESLs).

6.3 Assessment Criteria – Sediment Contamination

Sediment criteria was derived with guidance from ANZECC/ARMCANZ (2000)[5]. Relevant criteria from *Table 3.5.1 Recommended Sediment Quality Guidelines* (ISQG-Low) was adopted as part of this investigation.

6.4 Assessment Criteria – Water Contamination

In accordance with DEC NSW (2007), JBS&G considered the environmental values (EVs) which are applicable to waters at the site. The following EVs were evaluated:

- Aquatic Ecosystems: This EV is considered to be applicable both on and offsite considering there are water bodies present at the site, along with a seasonal flowing creek system, and onsite waters flow offsite into receiving bodies including creek and river systems;
- Aquaculture and human consumers of food: This EV is considered unlikely to be realised onsite based on the current (vacant) and proposed (industrial development) land use. This EV is also considered unlikely to be realised offsite owing to the surrounding land use primarily being vacant forested land or mining activities;
- Agricultural water: This EV is considered unlikely to be realised onsite based on the current (vacant) and proposed (industrial development) land use. This EV is also considered unlikely to be realised offsite owing to the surrounding land uses and the fact that all monitoring bores within a 1km radius are used for "monitoring" purposes;
- Recreation and Aesthetics: This EV is considered to be possible both on and off site;
- Drinking water: This EV is unlikely to be realised onsite based on the current (vacant) and proposed (industrial development) land use, and the fact a reticulated potable water supply will be made available. This EV is also considered unlikely to be realised offsite owing to the surrounding land uses and the fact that all monitoring bores within a 1km radius are used for "monitoring" purposes; and
- Industrial Water: This EV is unlikely to be realised onsite as the proposed development is unlikely to consist of heavy industry, and also that reticulated potable water will be available. It is also considered unlikely to be realised offsite as all monitoring bores within a 1km radius are used for "monitoring" purposes.

Based on the above evaluation, water criteria was derived with guidance from ASC NEPM, ANZECC/ARMCANZ (2000) and NHRMC (2008)[6]. The following water assessment criteria were adopted for this assessment:

- *Slightly to moderately disturbed system – 95% level of protection for fresh water* (ANZECC/ARMCANZ 2000);
- *Drinking water guidelines value multiplied by a factor of 10 for recreational use* (NHMRC 2008); and
- *Aesthetic parameters* (NHMRC 2008).

The 95% protection level for fresh water was considered the most appropriate level of protection for the site given the slightly to moderately disturbed nature of the site and surrounds.

[5] *Australian and New Zealand guidelines for fresh and marine water quality,* Australian and New Zealand Environment and Conservation Council, October 2000 (ANZECC/ARMCANZ 2000).
[6] *Guidelines for Managing Risks in Recreational Water,* National Health and Medical Research Council, 2008 (NHRMC 2008).

7. 2018 Data Gap Investigation

To address the data gaps considered vital for the development of a draft RAP, as identified in **Section 5.7**, JBS&G reattended site to complete additional investigations. These works have been summarised in the following section.

7.1 Sampling and Analysis Plan

7.1.1 Data Quality Objectives

Data quality objectives (DQOs) were developed for the required Data Gap Investigation, as discussed below.

7.1.2 State the Problem

The site is proposed to be redeveloped for an industrial land use with ecological protection zones located in the northern portion of the site. This historical use of the site is understood to have included chicken farming and demolition of asbestos containing structures. Historical timber and coal mining operations are also a concern.

Previous site investigations undertaken at the site have identified areas which require additional assessment and/or remediation. The data gap analysis completed to date indicates a lack of information with regard to Farm 19, the backfilling of ponds located in the south western portion of the site, and the use of hydrocarbons as a disinfectant and timber preservative at the farm sites.

It is critical to note here that:

- Investigations have been completed across the site to date and these investigations suggest a lack of gross and widespread contamination;
- The proposed development will comprise cut and fill across the majority of the site and the potential for unexpected finds following completion of the proposed development is considered to be very low.

The factors noted above have been considered when developing a judgemental sampling program for the AEC.

7.1.3 Identify the Decision

Based on the decision-making process for assessing urban redevelopment site detailed in NSW EPA (2017). NSW EPA 2017 (EPA 2017), the following decisions must be made with respect to the specific AEC requiring investigation (see **Section 5.7**):

- Are there any unacceptable risks to likely future on-site receptors from impacted environmental media?
- Are there any issues relating to local area background soil concentrations that exceed the appropriate soil criteria?
- Are there any additional aesthetic concerns in soil present at the site?
- Is there any evidence of, or potential for, migration of contaminants off-site?
- Is there sufficient information to write a draft RAP for the Stage 2 works at the site?

7.1.4 Identify Inputs to the Decision

Inputs to the decisions were:

- Review of desktop historical information or provided information including available previous environmental reports;

- Field observations in relation to inspection of all test pits and surface samples for odours, sheen, discolouration, and other indicators of potential contamination;
- Environmental media data collected by sampling and analysis;
- Assessment criteria based upon the proposed commercial/industrial land use and E2 zoning (see **Section 6**); and
- Confirmation that data generated by field measurements and sample analysis are of a sufficient quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance / quality control (QA/QC) as per the data quality indicators established in **Section 7.1.7**.

7.1.5 Define the Study Boundaries

The lateral extent of the study comprised the suspected extents of Farm 19, the backfilled ponds located in the south western portion of the site, and the farm sites where disinfectant and timber preservatives may have been used.

The vertical extent of the study comprises:

- Farm 19 – a maximum depth of 2.0 m, or a sufficient depth to identify fill and potential contamination from chicken farm activities;
- Backfilled Ponds – to a sufficient depth that the natural soils beneath the former pond formation had been reached; and
- Farm sites – surface soils to a maximum depth of 0.2 m in order to assess near surface contamination.

The temporal boundaries of the study comprise the date of the field investigations.

7.1.6 Develop a Decision Rule

The decision rules adopted to answer the decisions identified in **Section 7.1.3** are summarised in **Table 7.1**.

Table 7.1 Summary of Decision Rules

Decision Rule to be made	Decision Rule
1. Are there any unacceptable risks to likely future on-site receptors from impacted environmental media?	Soil analytical data will be compared against EPA endorsed criteria. Statistical analysis of the data will be completed in accordance with relevant guidance documents, as appropriate, to facilitate the decisions. The following statistical criteria will be adopted with respect to soil: Either: the reported concentrations will be below the site criteria; Or: the average site concentration for each analyte will be below the adopted site criterion; no single analyte concentration exceed 250% of the adopted site criterion; and the standard deviation of the results will be less than 50% of the site criterion. And: the 95% upper confidence limit (UCL[7]) of the average concentration for each analyte will be below the adopted site criterion. If the statistical criteria stated above are satisfied, the answer to the decision is No. If the statistical criteria is not satisfied, the answer to the decision is Yes.
2. Are there any issues relating to the local area background soil concentrations that exceed appropriate soil criteria?	Soil analytical data will be compared against EPA endorsed criteria. If the 95% UCL of surface soils exceeded published background concentrations (ASC NEPM), the answer to the decision is Yes. Otherwise the answer to the decision is No.
3. Are there any aesthetics issues in fill soils at the site?	If there are any ACM fragments on the ground surface, any unacceptable odours or soil discolouration, the answer to the decision is Yes. Otherwise, the decision answer to the decision is No. If there are any animal carcasses on the ground surface or within buried wastes, the answer to the decision is Yes.

[7] *Sampling Design Guidelines*. NSW EPA. September 1995. (EPA 1995)

Decision Rule to be made	Decision Rule
	Otherwise, the decision answer to the decision is No.
4. Is there any evidence of, or potential for, migration of contaminants off-site?	Are contaminants present within soils which would likely require additional leachable analysis? If Yes, additional analysis should be undertaken, with the resulting results being compared to published background concentrations (ASC NEPM, or ANZECC/ARMCANZ 2000). If these criteria are exceeded, additional investigations may be required. Otherwise, the answer to the decision is No.
5. Is there sufficient information to write a draft RAP for the Stage 2 works at the site?	If the answer is Yes, then the Stage 2 Works RAP can be prepared. If No, additional investigation works may be considered, or greater contingencies/allowances provided in the RAP.

7.1.7 Specify Limits of Decision Error

An assessment of quality assurance / quality control (QA/QC) shall be undertaken by calculation of data quality indicators (DQIs).

To assess the usability of the data prior to making decisions, the data is to be assessed against pre-determined DQIs established for the pilot trial as discussed below in relation to precision, accuracy, representativeness, comparability and completeness and sensitivity (PARCCS parameters), and are shown in **Table 7.2**.

- **Precision** – measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD)[8] of duplicate samples.
- **Accuracy** – measures the bias in a measurement system. The accuracy of the laboratory data that is generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** –expresses the degree which sample data accurately and precisely represents a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** – expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.

[8] $$RPD(\%) = \frac{|C_o - C_d|}{C_o + C_d} \times 200$$

Where C_o is the analyte concentration of the original sample
C_d is the analyte concentration of the duplicate sample

- **Sensitivity** – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table 7.2 Summary of Quality Assurance / Quality Control Program

Data Quality Indicator	Frequency	Performance Target(s)
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<30% RPD[1]
Split duplicates (inter laboratory)	1 / 20 samples	<30% RPD[1]
Laboratory duplicates	1 / 20 samples	<30% RPD[1]
Accuracy		
Surrogate spike (organic analytes)	All samples	70-130%
Matrix spikes	1 per lab batch or 20 samples	70-130%
Laboratory control samples	1 per lab batch or 20 samples	70-130%
Trip spikes (each media when volatile compounds are a significant concern based on the available information)	1 per sampling event	70-130%
Trip blank (each media when volatile compounds being analysed are a significant concern based on the available information)	1 per sampling event	70-130%
Rinsate blank	1 per sampling event involving reusable sampling equipment	-
Representativeness		
Sampling appropriate for media and analytes		-
Laboratory blanks	1 per lab batch	<LOR
Samples extracted and analysed within holding times.	-	180 days for phosphorus and alkali metals 28 days for other metals and nitrogen derivatives 14 days for organics soil/water except where noted above/below 7 days TRH C_{10}-C_{40} and SVOCs in water 72 hours for E. Coli and Total Coliforms
Comparability		
Standard operating procedures for sample collection & handling	All samples	-
Standard analytical methods used for all analyses	All samples	-
Consistent field conditions, sampling staff and laboratory analysis	All samples	-
Completeness		
Soil description and COCs completed and appropriate and consistent	All samples	-
Appropriate documentation	All samples	-
Satisfactory frequency and result for QC samples	All QA/QC samples	-
Data from critical samples is considered valid	-	Critical samples valid
Sensitiveness		
Limits of reporting appropriate and consistent	All samples	-

1. If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgement will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.

7.1.8 Optimise the Design for Obtaining Data

Farm 19 is approximately 21,800 m^2 in size, and in accordance with AS4482.1, the recommended sampling density to characterise a site this size using a square grid-based approach is 32 locations. Owing to time constrains and the preliminary nature of the investigation, 15 sample locations on an approximate grid was considered sufficient to provide adequate information for the preparation of the RAP.

To gain an understanding of the buried material within the former dams, a judgemental sampling approach of at least two test pits per former dam was considered to be suitable for the purposes of this stage of the investigation process.

To gain an understanding of the use of disinfectants and timber preservatives within the farm areas, a sample approach was upon at least one near surface sample collected from eight representative farms was deemed appropriate for the purposes of this stage of the investigation process, including Farm 9 which was highlighted in historical reports as previously containing hydrocarbon staining around wooden posts.

Section 5.7 identified a range of COPC for the specific areas of concern and sample analysis was to assess these COPC (see **Section 7.2**). Formaldehyde analysis was not conducted on the basis that it is anticipated that residual formaldehyde concentrations (if any) would most likely be very low considering the time which has elapsed since the chicken sheds were demolished. Formaldehyde contamination will however require further assessment through the RAP implementation process.

7.2 Scope of Works

JBS&G attended site between 24 and 26 July 2018 and undertook the following works:

- Excavation of fifteen test pits (denoted NFTP01 through NFTP15) into natural soils around Farm 19 using a 5-tonne excavator. Soil sampling locations from Farm 19 are shown in **Figure 6a**, while the test pit logs have been provided in **Appendix J**;
- Installation of twenty test pits (denoted PTP01 through PTP20) through the backfilled ponds (Ponds 2 through 7) and adjacent mounds using a 5-tonne excavator. Test pits were extended to a depth where the underlying natural soils were intercepted. A number of test pits were extended laterally to form trenches so that the lateral extents of the backfilled ponds could be determined. Soil sampling locations from the Backfilled Ponds are shown in **Figure 6b**, while the test pit logs have been provided in **Appendix J**;
- Collection of three sediment samples (denoted SED01 through SED03) from backfilled ponds which still retained water (Ponds 1 and 7). These sediment samples were collected from approximately 0.2-0.3 m below the sediment base of the dam. The depth to natural soils within these locations could not be determined. Sediment sampling locations from the Backfilled Ponds are shown in **Figure 6b**, while the sampling logs have been provided in **Appendix J**;
- Collection of fourteen surface samples (denoted SS01 through SS14) from both farm and balance areas using hand sampling equipment. The location of the surface samples has been provided in **Figure 6c**, while the sampling logs have been provided in **Appendix J**; and
- A walk over of the vegetated areas of the site, noting the location of stockpiles, dumped rubbish or remains of former structures. A figure plotting the identified areas of interest has been provided in **Figure 7**, while the corresponding photo logs has been provided in **Appendix K**.

During test pitting, samples were taken at various depths based on the lithology encountered, as well as visual or olfactory signs of contamination. Samples were taken in laboratory provided soil jars and were placed in cooled box for transport to the laboratory for analysis.

Where the potential for ACM was identified, replicate samples were placed in laboratory provided bags for the quantification of asbestos in accordance with the ASC NEPM.

Targeted analysis was completed based on visual/olfactory signs of contamination and the likely location of contamination to be present based on the potentially contaminating land use. Based upon the available information, the analysis focused on a broad spectrum of contaminants which may be present within targeted soils. As such, analysis was completed for a combination TRH,

BTEXN, PAHs, metals, OCP, nitrogen, phosphate, E. Coli and total coliforms. The rationale for the analysis conducted can be summarised as follows:

- Near surface samples from the Farm 19 area were analysed for TRH, BTEX, PAH, OCP, nitrogen, phosphate, metals, asbestos, E. Coli and total coliforms on the basis that this sampling interval was the most likely to contain contamination associated with the AEC;
- For the infilled ponds, representative fill material and natural material (i.e. at the base) were selected for analysis from each pond. Samples were analysed for TRH, BTEX, PAH, OCP, nitrogen, phosphate, metals, asbestos, E. Coli and total coliforms on the basis that these COPC represented the highest risk based upon the working CSM. Fill samples were selected for analysis on the basis of visual/olfactory evidence of contamination (where present), such as ash and staining;
- For the remaining farm areas, near surface samples were collected to provide a screening level assessment and analysed for TRH, BTEX, PAH and metals as there were the primary COPC being considered;
- Historical investigations had not included analysis for EIL derivation parameters. Near surface samples collected from farm and background areas were subject to analysis in order to allow for the derivation of site specific EILs.

Chain of custody documentation is provided in **Appendix L**.

7.3 Field Observations

Test pitting conducted within Farm 19 identified fill, generally between 0.5 m to 1.0 m thickness, across this AEC. The fill consisted silty or clayey sands, with minor intermixed gravels. Intermixed wastes, staining and olfactory impacts were not identified within this material, with the exception of minor black staining and charcoal fragments within NFTP02 and NFTP04, and metal fragments within surface soils at NFTP12. Underlying the fill were natural clayey sediments.

The seven backfilled ponds in the south western portion of the site were identified during this investigation. Pond 1 and a portion of Pond 7 retained water, while the backfill outline of the majority of the other dams could be seen by field staff. Test pits and trenches through the ponds identified that the majority of backfill material consisted of a range of sediments from clayey sands to gravelly clays. Intermixed wastes, staining and olfactory impacts were not identified within this material, with the exception of minor charcoal and wood fragments and an organic odour in Pond 1, minor black staining and organic odours within Pond 2, minor organic odours within Pond 5. Fill was identified to the following general depths: Pond 1 – unknown (test pitting to natural not completed due to presence of water), Pond 2 – 1.3-1.7 m, Pond 3 – 0.2 m, Pond 4 – 1.5 m, Pond 5 – 1.4 m, Pond 6 – 1.5-1.9 m, Pond 7 – 0.3-1.0 m. Underlying the backfill materials was natural soils consisting primarily of clay with minor shale fragments. JBS&G did not identify evidence of a clay or plastic lining in the base of the ponds.

It should be noted that Ponds 1, 4 and 6 had mounded shoulders to the south, west and north/west respectively. The mounds consisted primarily of clay, although minor construction waste was identified within the top 0.5 m of PTP08 (the mounded shoulder of Pond 4) and the top 0.6 m of PTP14 (the mounded shoulder of Pond 6);

Surface samples were collected primarily from grassed open areas, with soils consisting primarily of clays. Intermixed wastes, staining and olfactory impacts were not identified from these sample locations.

PID readings were low across the areas investigated and not indicative of potentially significant volatile contamination, consistent with visual/olfactory observations and the corresponding

analytical data (see **Section 7.4**). The calibration certificate for the PID has been provided in **Appendix I**.

JBS&G did not identify further AEC during the walk over of the proposed vegetation clearing areas. The inspection identified several areas where inert construction waste had been scattered across the surface or partially buried. This construction waste consisted primarily of concrete, brick, metal sheeting and wire, and timber, although ACM was not identified. The majority of waste identified was located along current/former roadways, or immediately within tree lines adjacent former farm or dump areas. Based on this, it is considered likely the waste was a result of former poultry farm operations or infrastructure. The material should be assumed to be potentially ACM containing excavation as part of vegetation clearing activities until each individual area is cleared of asbestos following disturbance.

7.4 Analytical Results

Soil analytical results from this investigation are provided in **Table A** in **Summary Tables (2018 Data Gap Investigation)**.

Concentrations of the contaminants of concern were less than the adopted health-based criteria within all soil samples analysed. There were however numerous ecological criteria exceedances including two exceedances for copper, ranging from 120mg/kg to 190mg/kg, and nine exceedances for zinc, ranging between 240mg/kg and 2,300mg/kg.

Also of note, detectable hydrocarbon results were identified within the majority of samples collected from the Farm 19 area and within the surface samples collected across the balance of the site. Hydrocarbons were generally non-detectable within the ponds area. PAHs, OCPs and AF were below the laboratory detection limit within all samples analysed, although a single fragment of fibre cement sheet identified within the ponds area was found to be positive for asbestos. Total Coliforms were identified within two samples from Pond 7 slightly below the adopted criteria, with detectable Total Coliforms concentrations also being identified in several other samples from the Ponds and Farm 19 areas.

Concentrations of the contaminants of concern were less than the adopted health-based criteria within all sediment samples analysed, with the exception of nickel, which exceeded the criteria within all samples (range 23mg/kg to 34mg/kg). OCPs, PAHs, hydrocarbons and Total Coliforms were below the laboratory detection limit.

7.5 Discussion

Based on the field observations and the analytical results obtained during the data gap investigation, wide spread, gross contamination was not identified within the areas of investigation. This is consistent with previous investigation findings at the site.

Assessment of Farm 19 identified that the area had been prepared for the possible construction of buildings (consistent with the aerial photograph review), as a layer of fill material had been introduced to level the area. The fill however did not exhibit signs of contamination (i.e. intermixed building wastes, staining or odours), which was supported by laboratory results being below the adopted health-based criteria within this area. It should be noted however that low concentrations of hydrocarbons, E. Coli and Total Coliforms were identified within surface soils across the majority of the area, indicating that poultry farming activities may have occurred in some capacity within this area. Based on the findings of the investigation within this area, it is considered that additional assessment is not required.

The field investigations identified each of the seven ponds which were visible in the aerial photographs. The majority had been backfilled, although the depressions at Pond 1 and 7 had subsequently refilled with water. Samples of the sediments located within these two water bodies did not identify gross contamination, although nickel concentrations within each sample exceeded

the tier 1 sediment guideline criteria. This is not considered to represent a significant issue in the context of the proposed development (i.e. this area will be subject to cut/fill works). The preliminary assessment of the remaining ponds identified that all had been backfilled with similar material, samples from which did not exceed health-based criteria in the samples subject to analysis. Elevated Total Coliform and E. Coli concentrations (marginally below criteria) were identified within Ponds 2 and 7, while a fragment of ACM was identified just to the north of Pond 7. Furthermore, minor amounts of construction waste were identified in the mounded shoulders adjacent to the ponds. Based on the results of the pond assessment, it is considered prudent to complete additional investigations within this area to better characterise these features.

A number of previous reports were provided for review during the completion of this ESA, which identified several previously unknown potentially contaminating activities. Surface samples from several farm and background areas were collected as a preliminary measure to address this new evidence. Detectable concentrations of hydrocarbons were identified within seven of the nine samples collected from former farm areas, indicating that residual may be present from former poultry farming activities (i.e. disinfectant spraying, timber preservation). Based on these results, it is recommended that additional investigation be completed within the farm areas.

It should be noted that there were a number of ecological criteria metal exceedances from the investigation of the ponds and balance of the site. These exceedances are not considered an issue for the proposed redevelopment of the site as the development is for industrial lots, the majority of which will be sealed with an impermeable layer once completed. Furthermore, significant cut and fill processes are to occur to prepare the site for development.

The walk over of the proposed vegetation clearing areas across the site did not identify additional AEC. Several locations were identified as having minor volumes of construction waste, although ACM was not identified by the field consultant. While there is a possibility that minor ACM, or other potential contaminants, may be present, this is considered low risk to the development owing to the significant cut and fill development process reducing the likelihood of contamination remaining undiscovered. The areas affected by construction wastes should be assumed to be potentially ACM containing until the areas has been cleared during vegetation clearing works.

8. Quality Assurance / Quality Control

A detailed data quality assessment based upon the project DQIs is provided in **Appendix M,** including an assessment of the two previous reports (JBS&G 2017 and NAA 2013) which analytical data had been replied upon. Analytical data was presented in other historical reports (i.e. EES 2003 and DP 2004) and this has been reflected in the summary tables, however, this data is considered to be suitable for indicative purposes only based on the time which has elapsed since the samples were collected. The following table presents a summary of the data quality assessment on the basis of the key factors outlined in Schedule B2 of the ASC NEPM.

Inter-laboratory and intra-laboratory duplicate RPDs calculations and blank sample data have been provided in **Table C** and **Table D** within **Summary Tables (2018 Data Gap Investigation)**.

Table 8.1: Summary of Data Quality Assessment

Aspect	Summary
Data completeness	Samples were collected in general accordance with the DQO process outlined in **Section 7.1.1**. As such, the data set is considered to be adequately complete.
Accuracy of reported data	Review of the field records and analytical results does not indicate any potential significant data accuracy issues.
Identification of potentially anomalous results	No potentially anomalous results have been identified.
Identification of invalid data	No potentially invalid data has been identified.

On the basis of **Table 8.1**, the soil data collected by JBS&G during the 2018 Data Gap Investigation, plus the historic soil, surface water and groundwater data collected in JBS&G 2017 and NAA 2013, is considered to be adequately reliable and usable for the purposes of this assessment.

9. Refined Conceptual Site Model

The data gap investigations completed during 2018 have allowed for the following refinements to the working CSM provided in **Section 5**:

- Sampling completed in the Farm 19 area did not identify COPC analysed exceeding commercial / industrial land use criteria, noting that one data gap remains (i.e. formaldehyde assessment);
- Sampling completed in the infilled ponds did not identify COPC analysed exceeding commercial / industrial use, noting that:
    - E.Coli / Total Coliforms are likely to be present in some areas above adopted criteria and for initial excavation purposes the material should be assumed to be potentially contaminated with these microbiological contaminants at unacceptable levels;
    - Based on observations made during investigations in other areas of the site, the potential remains for buried animal carcasses and demolition wastes is considered to remain;
    - Saturated sediments appear to be limited to Ponds 1 and 7.
- The petroleum hydrocarbon data (i.e. low level detectable concentrations within the majority of samples) collected for the Farm 19 area and other targeted farm areas correlates with the anecdotal information that a petroleum hydrocarbon-based disinfectant was used in the former chicken shed areas. This data is considered to warrant more detailed investigations as part of the implementing the RAP, including consideration of formaldehyde.

10. Conclusions and Recommendations

10.1 Conclusions

Based on the findings of this investigation, and subject to the limitations in **Section 11**, the following conclusions are made:

- Site contamination exists which requires remediation in order to render the site suitable for the proposed development, noting that the extent of contamination appears to be relatively limited in the context of the site area and number of historical potentially contaminating activities of concern. The principle concerns relate to Asbestos Containing Material (ACM) associated with historical demolition works and fill importation, with buried organic wastes within former waste dump areas and isolated petroleum hydrocarbon contamination representing secondary concerns; and
- The contamination investigations completed to date have identified the contamination issues which will required remediation and/or management to the extent that a Remedial Action Plan (RAP) can be prepared which includes requirements for additional data gap investigations in order to confirm remedial volumes.

10.2 Recommendations

A RAP should be prepared based upon the refined CSM presented in this report in order to provide a framework for rendering the site suitable for the proposed development.

11. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

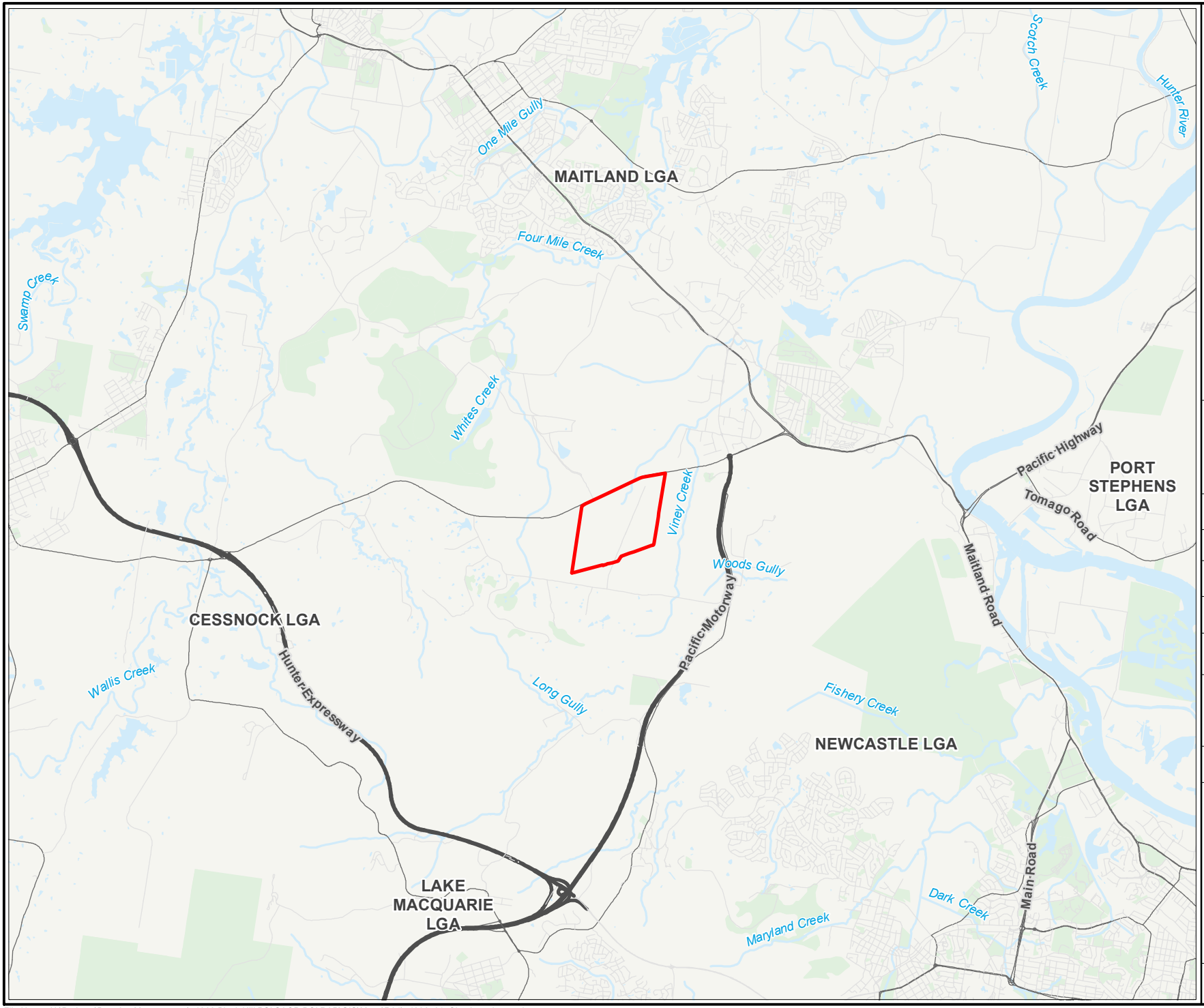
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Figures



Legend:
Site boundary

[redacted]

Job No: 54892	
Client: Broaden Management	
Version: R01	Date 30/07/2018
Drawn By: FH	Checked By: JS

Scale 1:100,000

0 1,100 2,200
metres

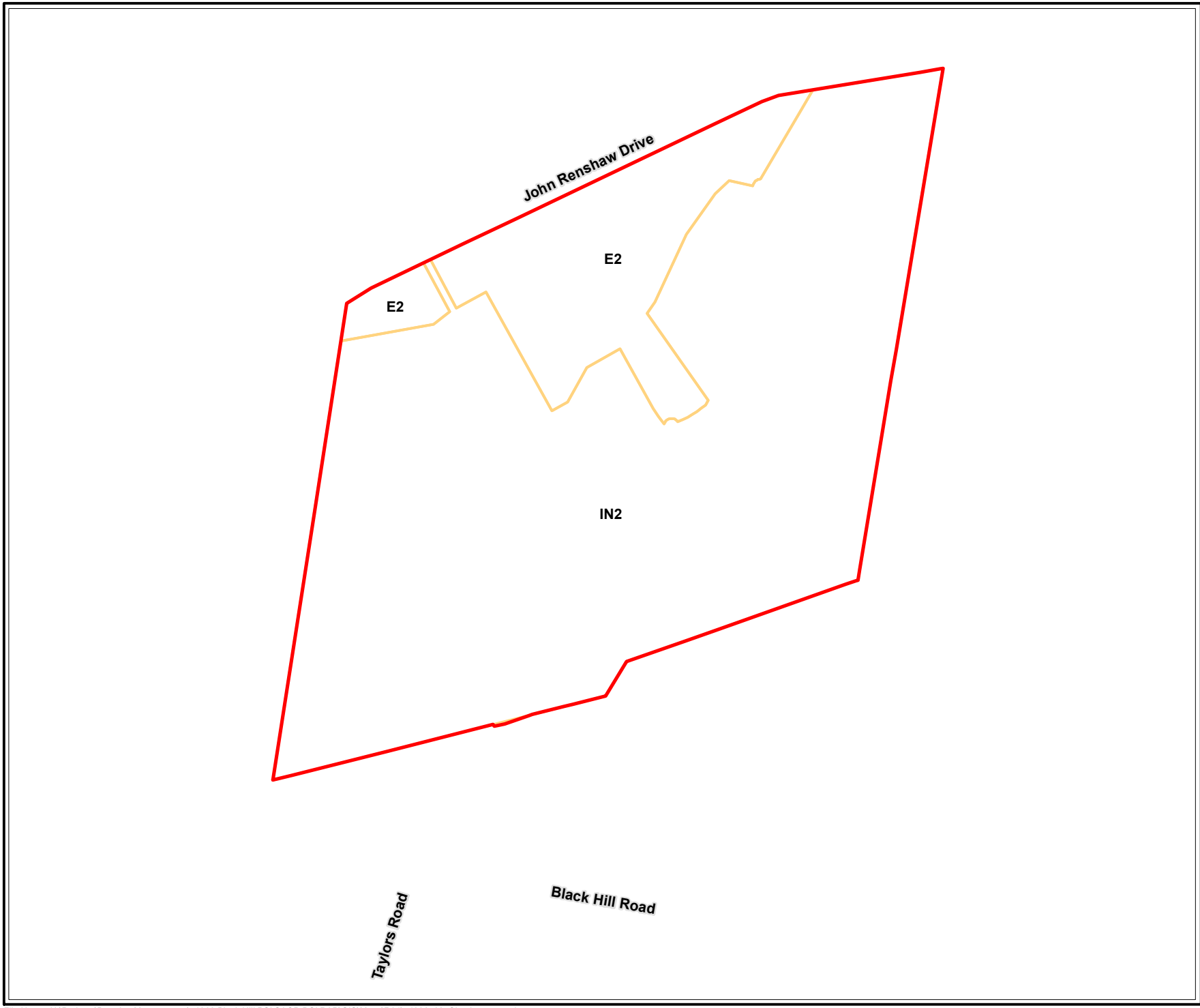
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

SITE LOCATION

FIGURE 1

File Name: N:\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_01_Site_Location.mxd
Reference:



Legend:
- Site boundary
- Zones

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 30/07/2018
Drawn By: FH	Checked By: JS

Scale 1:14,000

0 160 320
metres

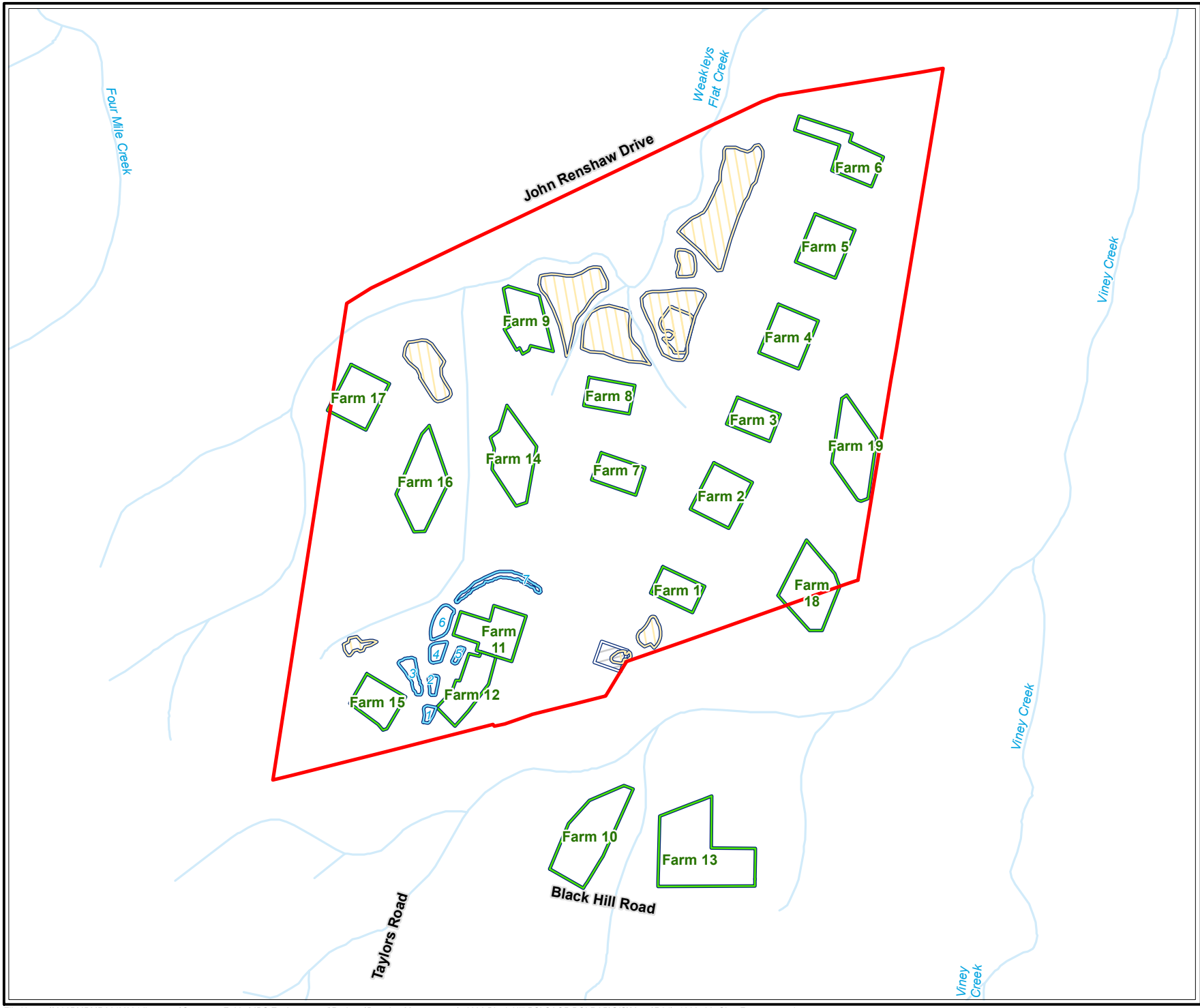
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

SITE ZONING

FIGURE 2

File Name: N:\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_02_Site_Layout.mxd
Reference: Nearmap Imagery 2018



Legend:

- Site boundary
- Infilled Pond
- Disturbed areas
- Concrete stockpile
- Farm extents
- Waterway

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 7/08/2018
Drawn By: FH	Checked By: SB

Scale 1:14,000

0 160 320

metres

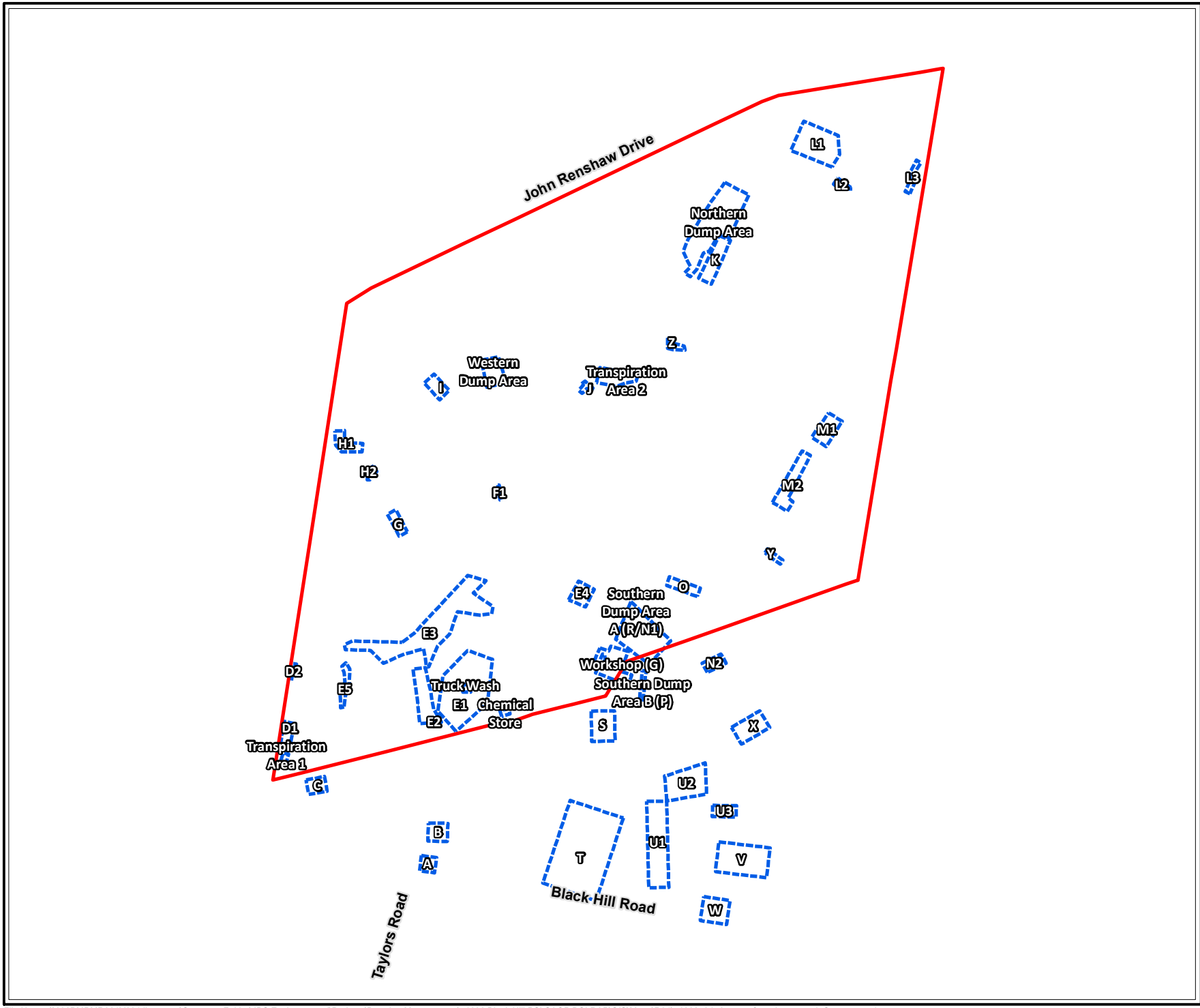
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

GENERAL SITE FEATURES

FIGURE 3

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_03_Site_Features.mxd
Reference: Nearmap Imagery 2018



Legend:

Site boundary

Historic Area of Interest

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 30/07/2018
Drawn By: FH	Checked By: JS

Scale 1:14,000

0 160 320

metres

Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

AREAS OF ENVIRONMENTAL CONCERN (DP,2017)

FIGURE 4

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_04_Areas_of_environmental_Concern.mxd
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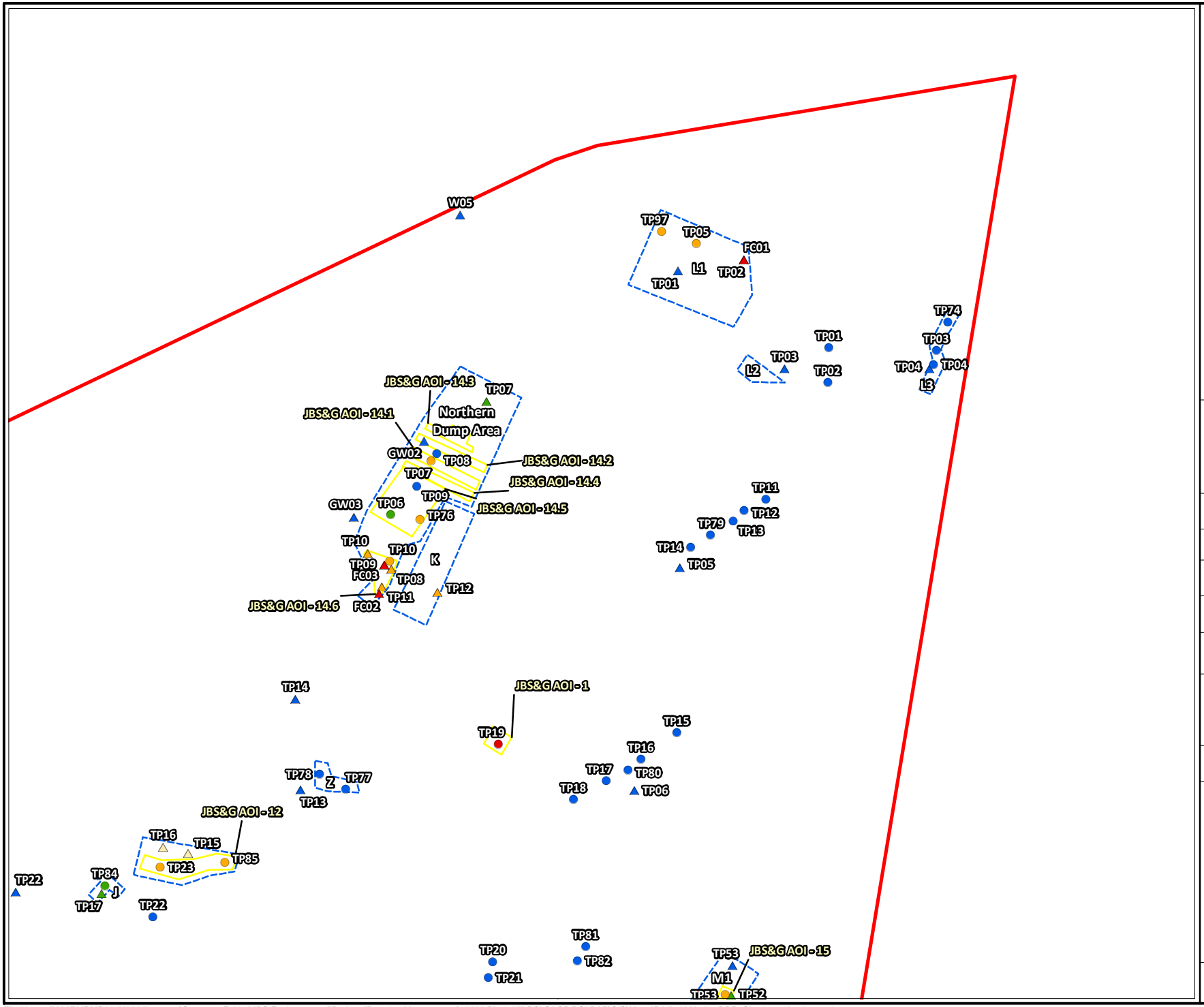


Legend:

- Site boundary
- JBS&G AOI
- Historic Area of Interest

Test Pit (JBS&G - 2017)

- No Waste
- Organic Waste
- Construction and General Waste
- ACM

Test Pit (Noel Arnold - 2013)

- No Waste
- Organic Waste
- Coliform and E Coli
- Construction and General Waste
- ACM

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: JS

Scale 1:5,500

0 60 120

metres

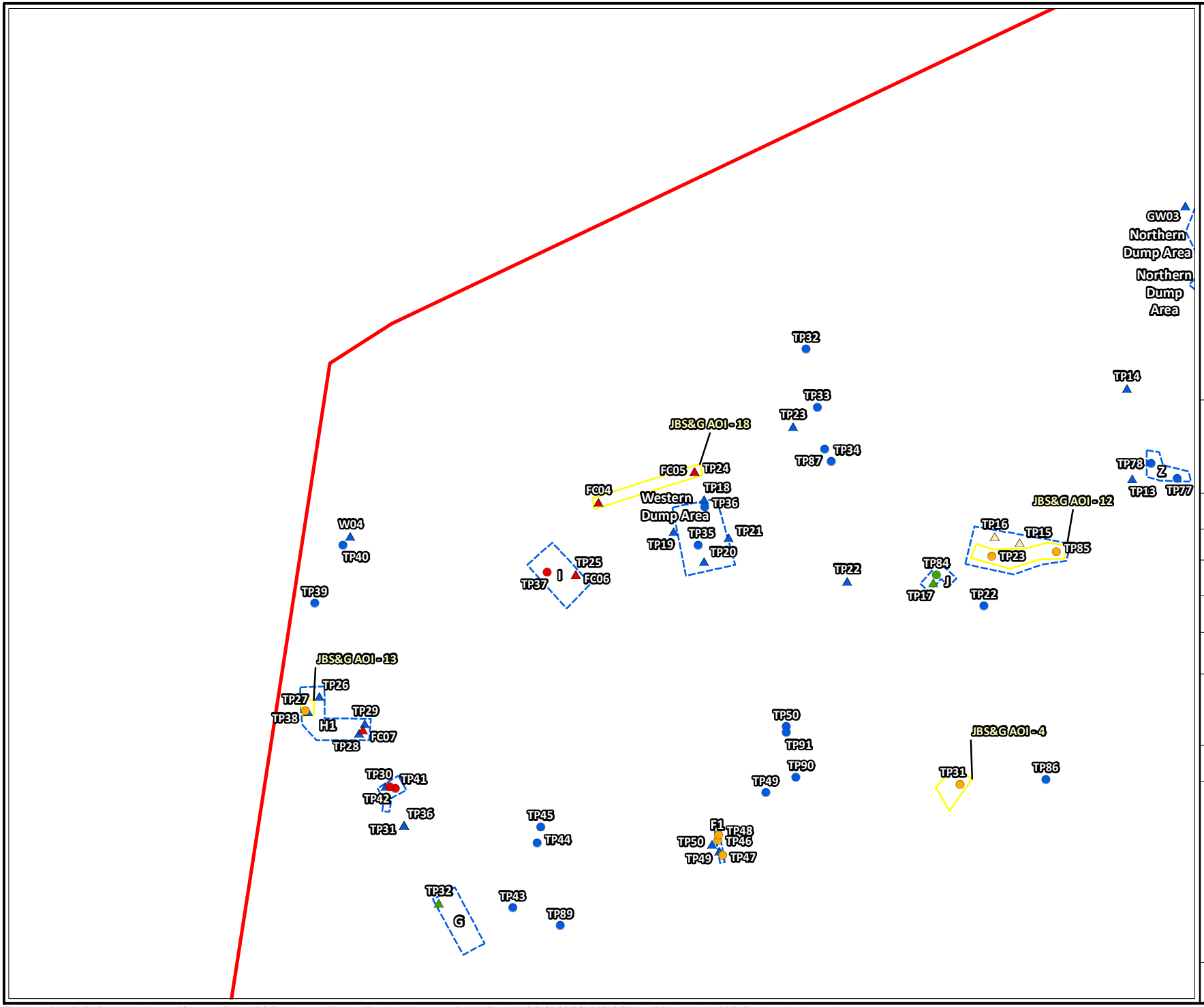
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

PREVIOUS SITE INVESTIGATION NORTH EAST

FIGURE 5a

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_05_DDP_Site_Investigation.mxd
Reference: Nearmap Imagery 2018



Legend:

- Site boundary
- JBS&G AOI
- Historic Area of Interest

Test Pit (JBS&G - 2017)

- No Waste
- Organic Waste
- Construction and General Waste
- ACM

Test Pit (Noel Arnold - 2013)

- No Waste
- Organic Waste
- Coliform and E Coli
- Construction and General Waste
- ACM

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: JS

Scale 1:5,500

0 60 120

metres

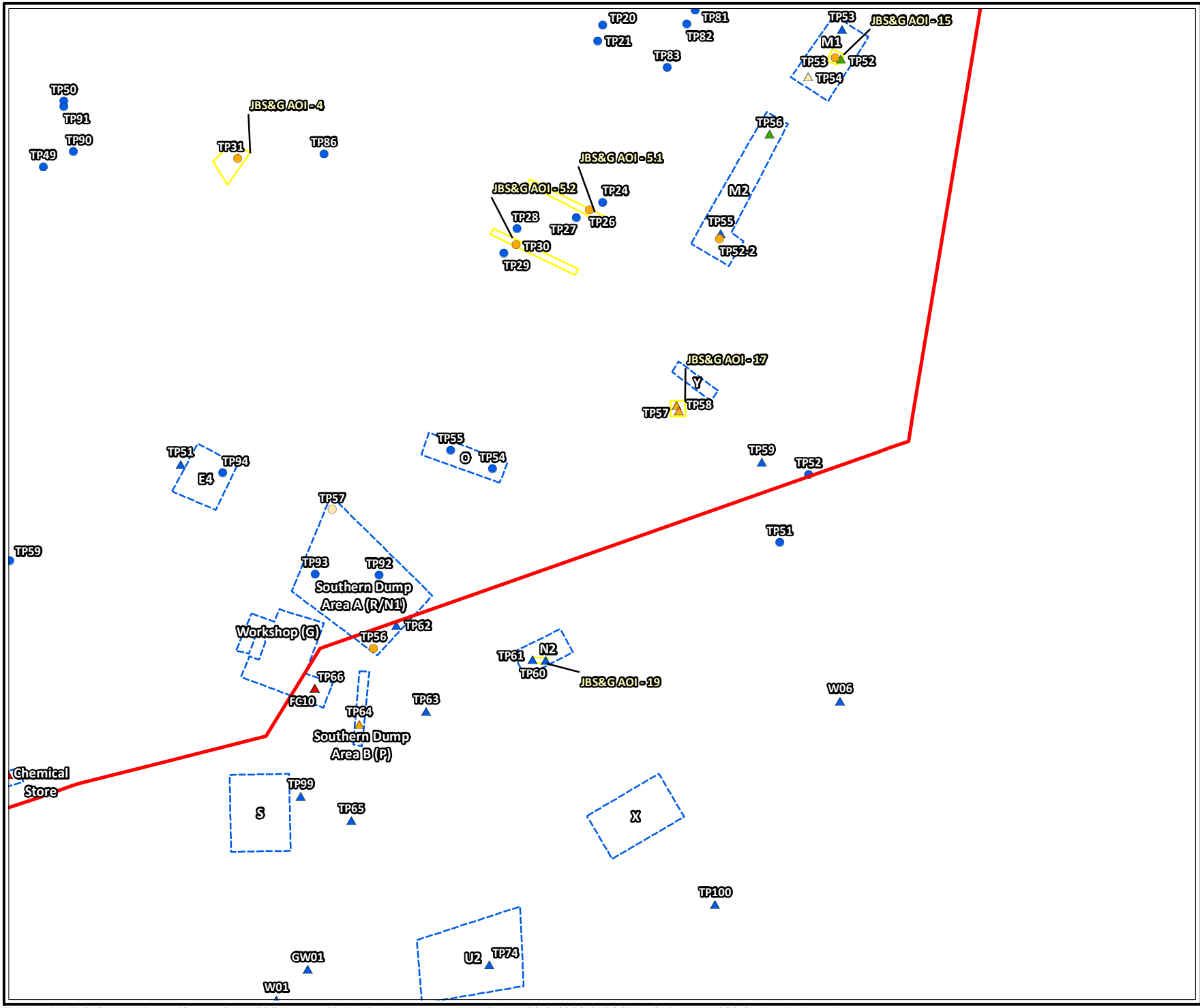
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

PREVIOUS SITE INVESTIGATION NORTH WEST

FIGURE 5b

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_05_DDP_Site_Investigation.mxd
Reference: Nearmap Imagery 2018



Legend:

- Site boundary
- JBS&G AOI
- Historic Area of Interest

Test Pit (JBS&G - 2017)

- No Waste
- Coliform and E Coli
- Construction and General Waste

Test Pit (Noel Arnold - 2013)

- No Waste
- Organic Waste
- Coliform and E Coli
- Construction and General Waste
- ACM

[redacted]

Job No: 54892	
Client: Broaden Management	
Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: JS
Scale 1:5,500	

0 60 120
metres

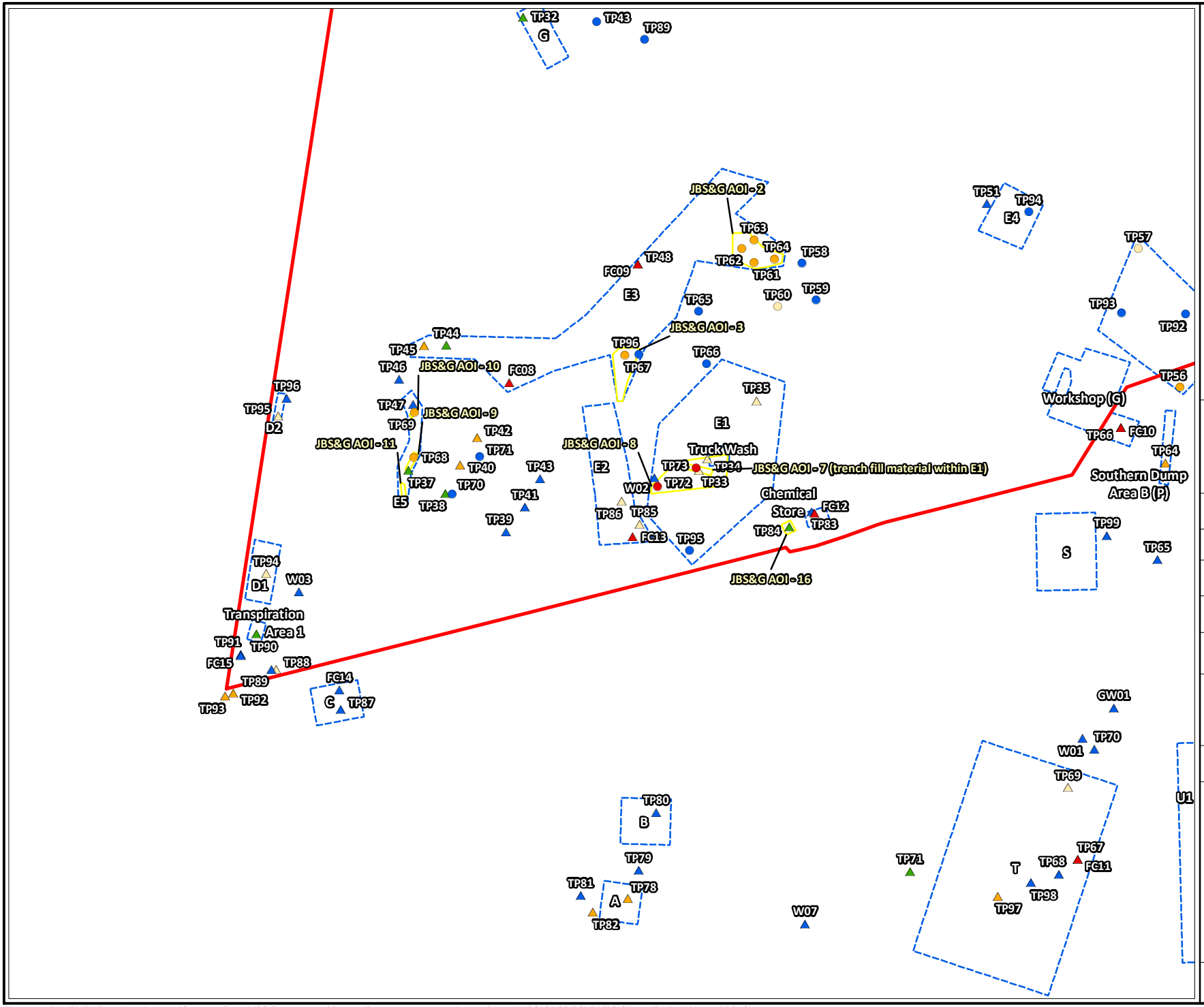
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

PREVIOUS
SITE INVESTIGATION
SOUTH EAST

FIGURE 5c

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_05_DDP_Site_Investigation.mxd
Reference: Nearmap Imagery 2018



Legend:

- Site boundary
- JBS&G AOI
- Historic Area of Interest

Test Pit (JBS&G - 2017)

- No Waste
- Coliform and E Coli
- Construction and General Waste
- ACM

Test Pit (Noel Arnold - 2013)

- No Waste
- Organic Waste
- Coliform and E Coli
- Construction and General Waste
- ACM

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: JS

Scale 1:5,500

0 60 120

metres

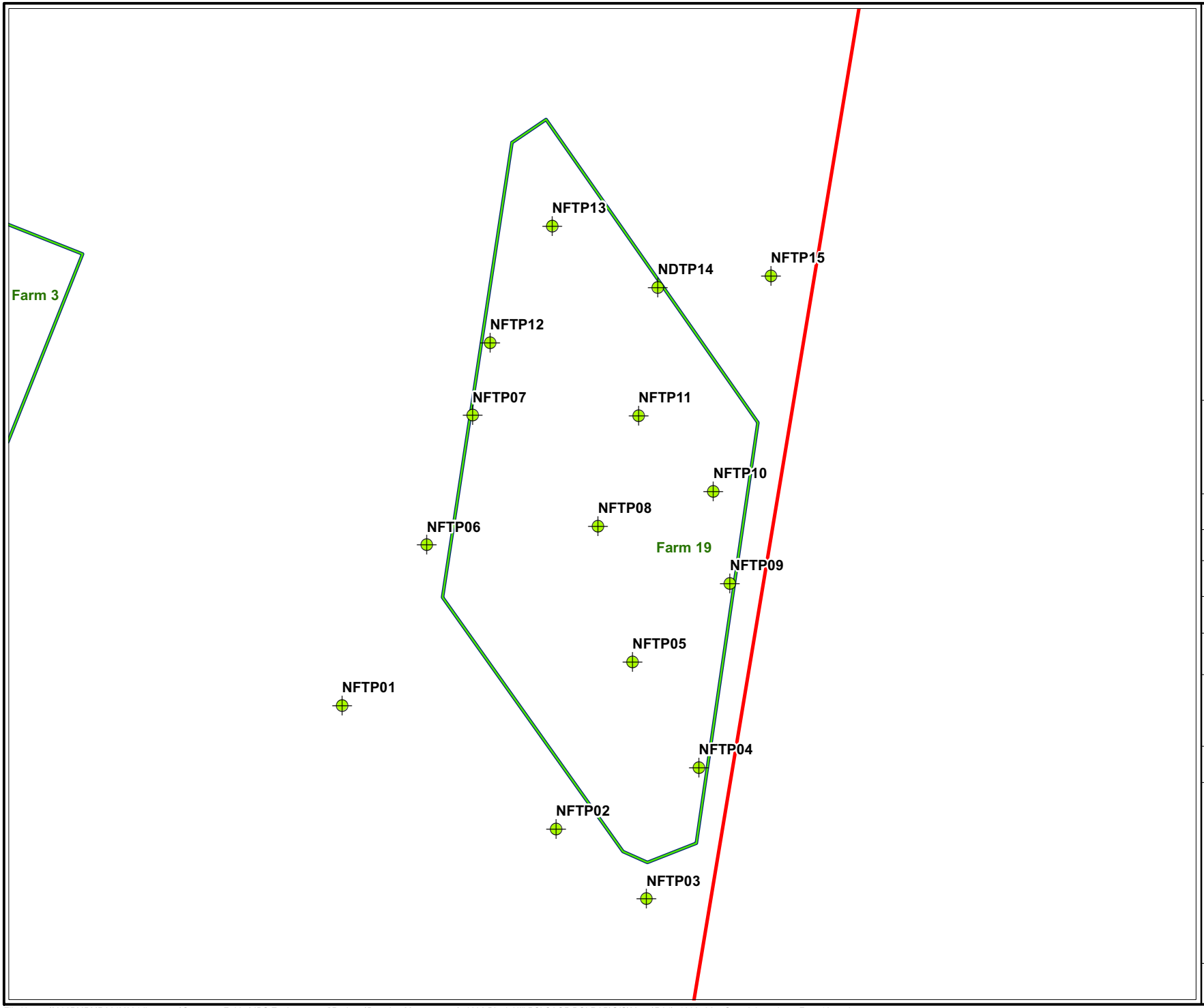
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

PREVIOUS SITE INVESTIGATION SOUTH WEST

FIGURE 5d

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_05_DDP_Site_Investigation.mxd
Reference: Nearmap Imagery 2018



Legend:

- Test Pit Locations
- Site boundary
- Farm extents

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: SB

Scale 1:2,000

0 20 40

metres

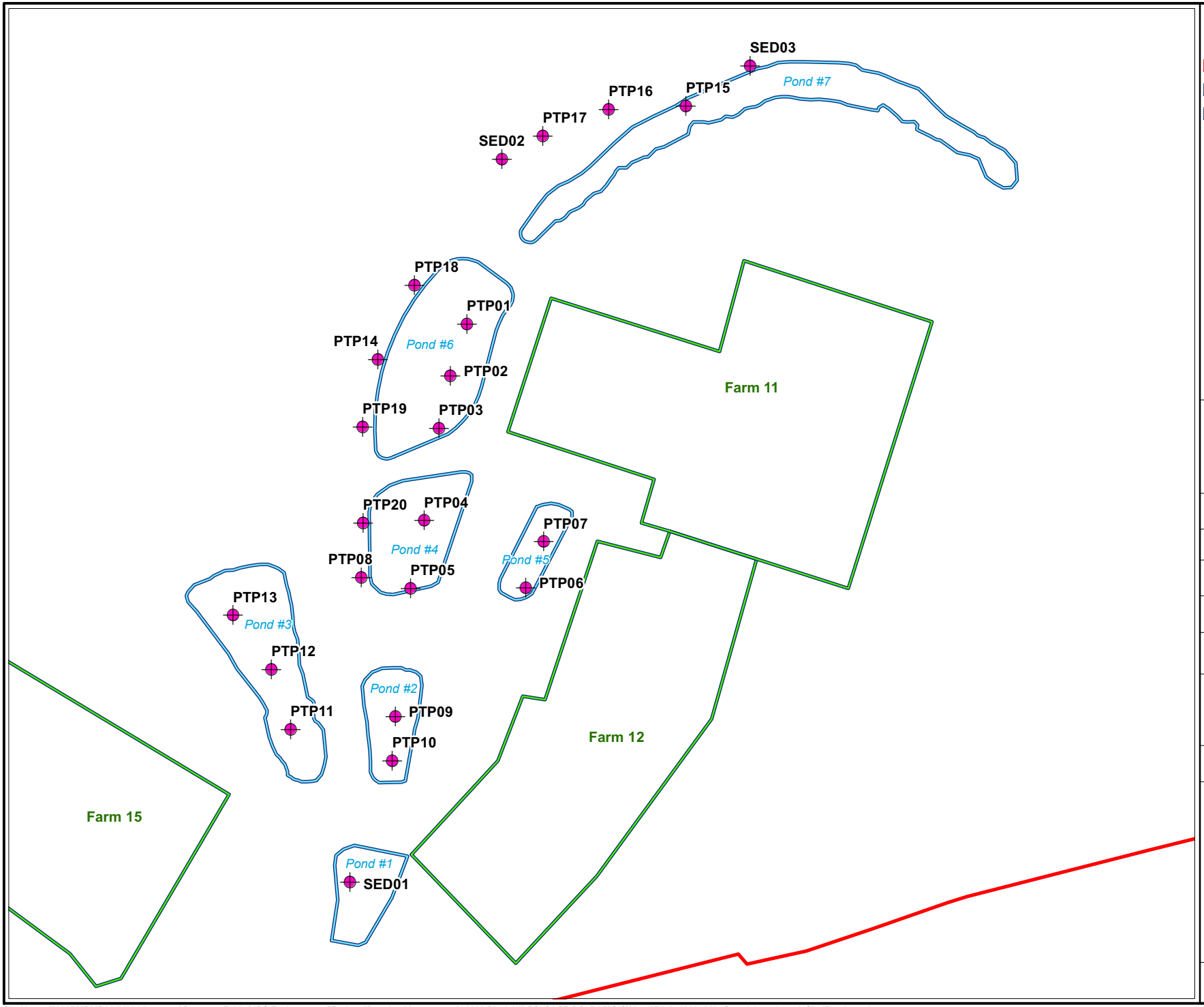
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

SAMPLE LOCATIONS – FARM 19

FIGURE 6a

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_06a_SampleLocations_Farm19.mxd
Reference: Nearmap Imagery 2018



Legend:

- Test Pit Locations
- Site boundary
- Infilled Pond
- Farm extents

[redacted]

Job No: 54892	
Client: Broaden Management	
Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: SB

Scale 1:2,400

0 25 50

metres

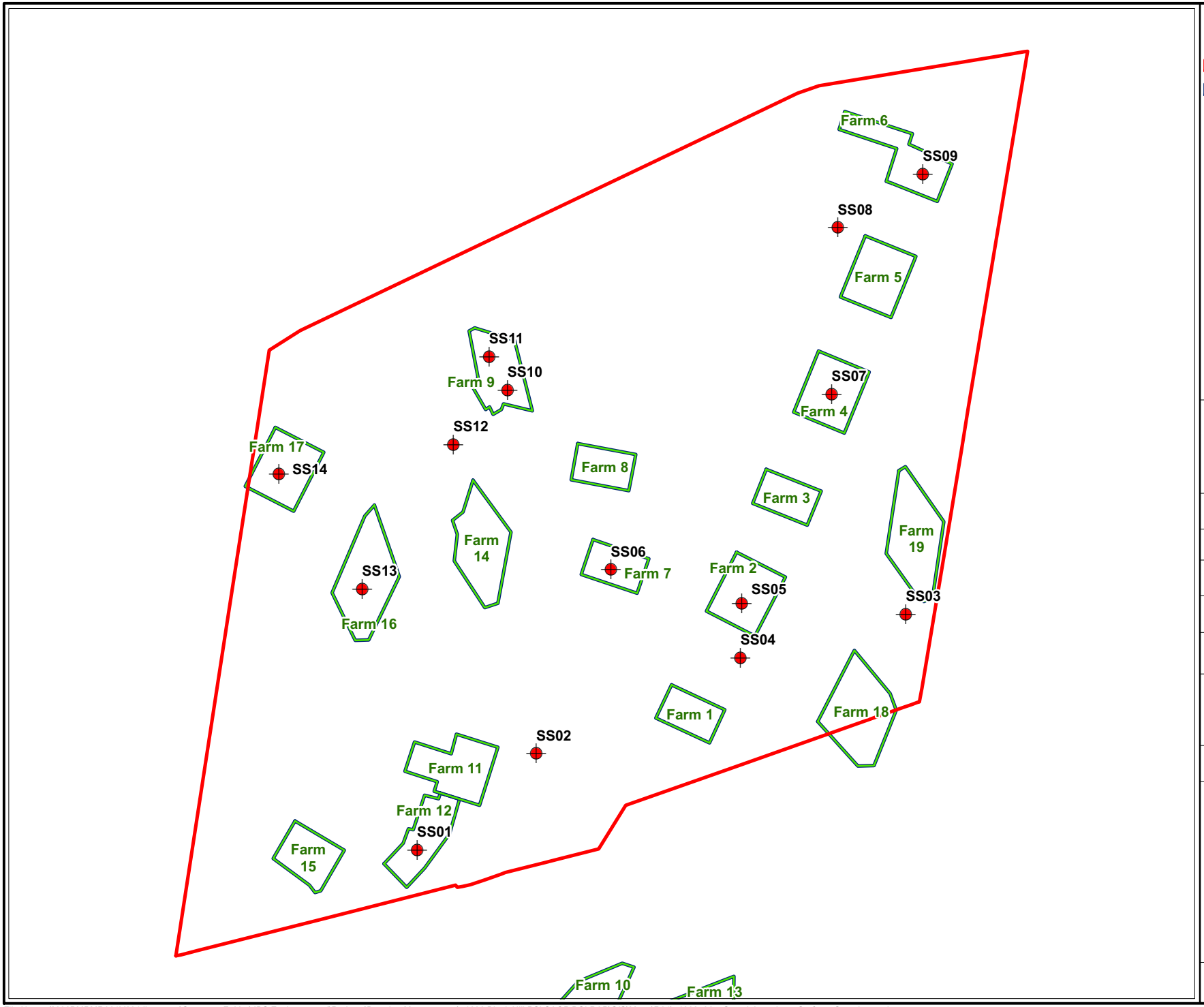
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

SAMPLE LOCATIONS – INFILLED PONDS

FIGURE 6b

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_06b_SampleLocations_InfilledPonds.mxd
Reference: Nearmap Imagery 2018



Legend:

- Surface Smaple Locations
- Site boundary
- Farm extents

[redacted]

Job No: 54892	
Client: Broaden Management	
Version: R01	Date 31/07/2018
Drawn By: FH	Checked By: SB

Scale 1:11,000

0 130 260

metres

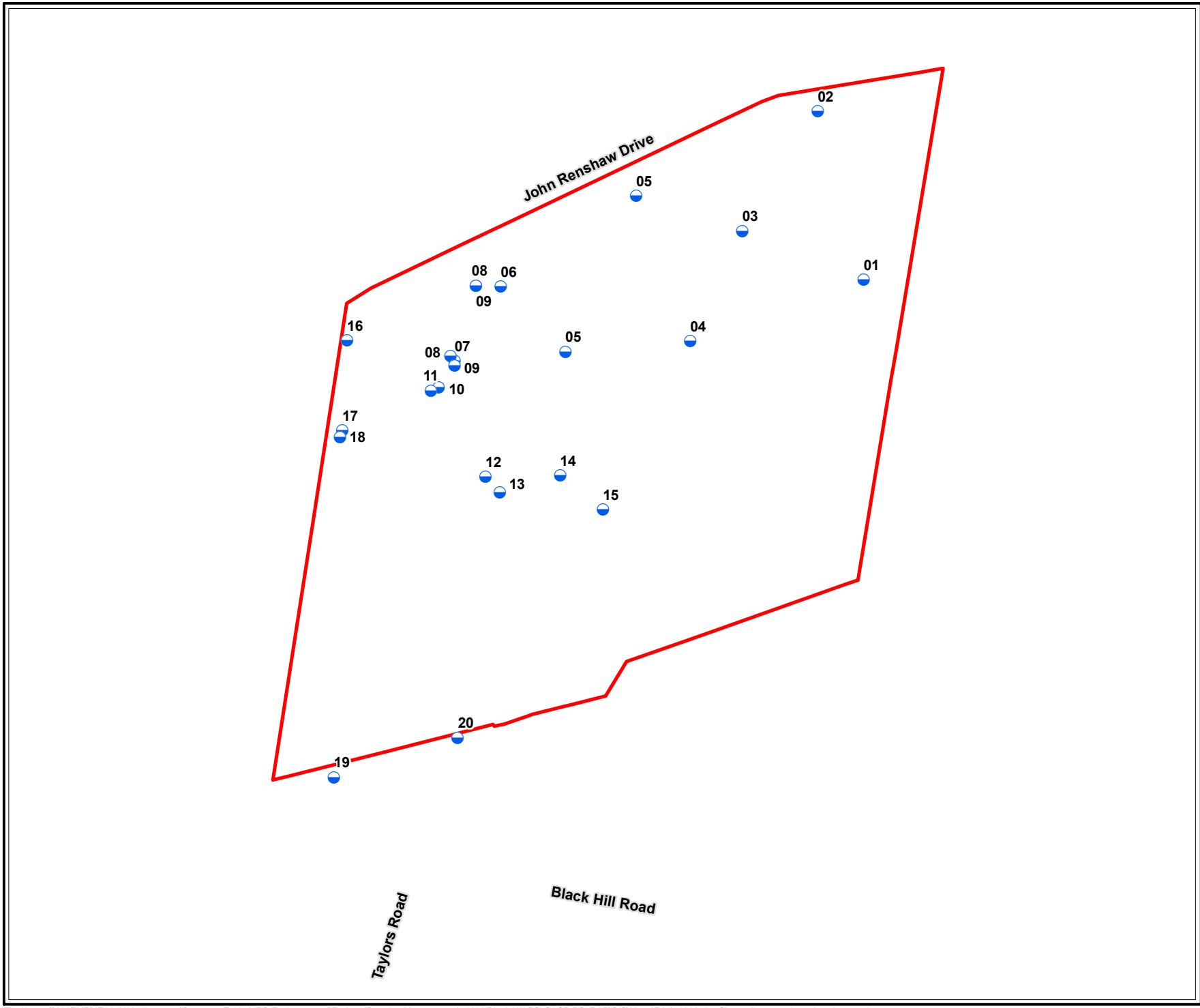
Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

SAMPLE LOCATIONS – SURFACE SAMPLES

FIGURE 6c

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_06c_SampleLocations_Surface_Samples.mxd
Reference: Nearmap Imagery 2018



Legend:
- Photo Locations
- Site boundary

[redacted]

Job No: 54892

Client: Broaden Management

Version: R01	Date 2/08/2018
Drawn By: FH	Checked By: JS

Scale 1:14,000

0 160 320
metres

Coord. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

SITE WALK OVER FINDINGS

FIGURE 7

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\R01\54892_07_Site_walk_over_photo_locations.mxd
Reference: Nearmap Imagery 2018

Summary Tables (2018 Data Gap Investigation)

TABLE A: SOIL SUMMARY TABLE (COMMERCIAL/INDUSTRIAL)
Project Number: 54892
Project Name: Black Hill

| | | Asbestos | | | | | | | | | | | | Heavy Metal | | | | | | | | | | | | Inorganic | | | | | | | Micro | | OCP | | | | | | | | | | | |

TABLE A: SOIL SUMMARY TABLE (COMMERCIAL/INDUSTRIAL)
Project Number: 54892
Project Name: Black Hill

		Organic									PAH																TPH				Volatile					
		C6-C9 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	>C10-C16 less Naphthalene (F2)	>C6-C10 Fraction	>C6-C10 less BTEX (F1)	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		20.00	50.00	100.00	100.00	100.00	50.00	20.00	20.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	20.00	50.00	50.00	50.00	0.10	0.10	0.10	0.10	0.20	0.30
NEPM 2013 Soil HIL D																40	40	40											4000[HIL]										
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m							NL[HSL]		260[HSL]	NL																	NL							3	NL	NL			230
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m							NL[HSL]		370[HSL]	NL																	NL							3	NL	NL			NL
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D																																						
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																						
CRC Care Direct Contact HSL-D Commercial / Industrial (Sept 2011)		20000	27000	38000			26000		11000																		11000							430	27000	99000			81000
CRC Care Direct Contact Intrusive Maintenance Worker (Sept 2011)		62000	85000	120000			82000		29000																		29000							1100	85000	120000			130000
NEPC 2013 EIL, EILs Aged Sediment									370																		370												
NEPM 2013 ESL Commercial and Industrial, Coarse Soil		170[EC]	1700[EC]	3300[EC]			170[EC]		215[EC]					1.4[EC]																				75[EC]	165[EC]	135[EC]			180[EC]
NSWEPA Biosolids																																						
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse		1000	3500	10000			700																															
Field_ID	**Sampled Date**																																					
AS01	26/07/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NFTP01_0.0-0.1	24/07/2018	<20	<50	<100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	69	69	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP01_0.5-0.6	24/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP02_0.1-0.2	24/07/2018	<20	<50	<100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP03_0.0-0.1	24/07/2018	<20	<50	100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	81	81	<0.1	0.2	<0.1	0.3	0.9	1.2
NFTP04_0.0-0.1	24/07/2018	<20	<50	<100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	51	51	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP05_0.0-0.1	24/07/2018	<20	<50	190	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	81	140	221	<0.1	0.2	<0.1	0.6	1.5	2.1
NFTP06_0.0-0.1	24/07/2018	<20	<50	110	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	80	80	<0.1	<0.1	<0.1	0.2	0.7	0.9
NFTP07_0.0-0.1	24/07/2018	<20	<50	140	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	63	100	163	<0.1	<0.1	<0.1	0.3	<0.2	0.4
NFTP08_0.0-0.1	24/07/2018	<20	<50	110	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	54	80	134	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP09_0.0-0.1	24/07/2018	<20	<50	110	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	100	100	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP10_0.0-0.1	24/07/2018	<20	<50	<100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	59	59	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP11_0.0-0.1	24/07/2018	<20	<50	<100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP12_0.0-0.1	24/07/2018	<20	<50	130	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	56	100	156	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP13_0.0-0.1	24/07/2018	<20	<50	110	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	76	76	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP14_0.0-0.1	24/07/2018	<20	<50	<100	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	61	61	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
NFTP15_0.0-0.1	24/07/2018	<20	<50	110	<100	-	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	51	87	138	<0.1	<0.1	<0.1	0.2	0.5	0.7
PTP01_1.4-1.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP01_1.9-2	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP02_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP02_1.5-1.6	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP03_0.0-0.1	26/07/2018	<20	<50	210	<100	210	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	62	200	262	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP03_0.9-1.0	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP04_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP04_1.6-1.7	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP05_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP05_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP05_1.6-1.7	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP06_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP06_1.6-1.7	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP07_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP07_0.8-0.9	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP08_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP09_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP09_1.4-1.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP10_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP10_0.9-1.0	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP11_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP11_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP12_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP12_0.2-0.3	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP13_0.0-0.1	26/07/2018	<20	<50	220	<100	220	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	75	190	265	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP14_0.3-0.4	26/07/2018	<20	<50	140	<100	140	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	130	130	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP15_0.0-0.1	26/07/2018	<20	<50	130	<100	130	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	57	100	157	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP15_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP16_0.3-0.4	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP16_0.4-0.5	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP17_0.2-0.3	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP17_1.2-1.3	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP18_0.2-0.3	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP18_0.8-0.9	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP19_0.0-0.1	26/07/2018	<20	<50	150	<100	150	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	120	120	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP19_0.2-0.3	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP20_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
PTP20_1.1-1.2	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SS01	26/07/2018	<20	<50	120	<100	120	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	60	86	146	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SS02	26/07/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS03	26/07/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS04	26/07/2018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS05	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SS06	26/07/2018	<20	<50	110	<100	110	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	100	100	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SS07	26/07/2018	<20	<50	110	<100	110	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2

TABLE B: SEDIMENT SUMMARY TABLE (COMMERCIAL/INDUSTRIAL)
Project Number: 54892
Project Name: Black Hill

| | | Heavy Metal | | | | | | | | | | Inorganic | | | | Micro | | OCP | | | | | | | | | |

TABLE B: SEDIMENT SUMMARY TABLE (COMMERCIAL/INDUSTRIAL)
Project Number: 54892
Project Name: Black Hill

		Organic									PAH																		TPH				Volatile					
		C6-C9 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C40 Fraction (Total)	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo[b,j]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		20.00	50.00	100.00	100.00	100.00	50.00	20.00	20.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	20.00	50.00	50.00	50.00	0.10	0.10	0.10	0.10	0.20	0.30
ANZECC/ARMCANZ (ISQG-Low) Sediment Guidelines										0.16	0.016		0.085	0.261	0.43								0.384		0.6	0.019			0.24	0.665	4									
Field_ID	**Sampled Date**																																						
SED01_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SED01_0.1-0.2	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SED02_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SED03_0.0-0.1	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
SED03_0.2-0.3	26/07/2018	<20	<50	<100	<100	<100	<50	<20	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3

TABLE C: DUPLICATE RESULTS TABLE
Project Number: 54892
Project Name: Black Hill

			Sample	Primary	Duplicate		Primary	Triplicate		Primary	Duplicate		Primary	Triplicate		Primary	Duplicate	
			Field ID	PTP09_0.4-0.5	QC01	**RPD**	PTP09_0.4-0.5	QC01A	**RPD**	PTP11_0.0-0.1	QC02	**RPD**	PTP11_0.0-0.1	QC02A	**RPD**	PTP15_0.0-0.1	QC04	**RPD**
			Sampled Date/Time	26/07/2018	26/07/2018		26/07/2018	26/07/2018		26/07/2018	26/07/2018		26/07/2018	26/07/2018		26/07/2018	26/07/2018	
Method_Type	**ChemName**	**Units**	**EQL**															
OCP	Organochlorine Pesticides EPAVic	mg/kg	0.1	<0.1	<0.1	0	<0.1	-	-	<0.1	<0.1	0	<0.1	-	-	<0.1	<0.1	0
	Other Organochlorine Pesticides EPAVic	mg/kg	0.1	<0.1	<0.1	0	<0.1	-	-	<0.1	<0.1	0	<0.1	-	-	<0.1	<0.1	0
Heavy Metal	Arsenic (Total)	mg/kg	2 (Primary): 4 (Interlab)	4.3	4.4	2	**4.3**	**11.0**	**88**	**6.0**	**3.9**	**42**	6.0	7.0	15	**6.7**	**19.0**	**96**
	Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
	Chromium (Total)	mg/kg	5 (Primary): 1 (Interlab)	**21.0**	**11.0**	**63**	**21.0**	**13.0**	**47**	**13.0**	**18.0**	**32**	13.0	17.0	27	**24.0**	**44.0**	**59**
	Copper	mg/kg	5 (Primary): 1 (Interlab)	**17.0**	**11.0**	**43**	**17.0**	**10.0**	**52**	80.0	78.0	3	80.0	90.0	12	17.0	21.0	21
	Lead	mg/kg	5 (Primary): 1 (Interlab)	**16.0**	**24.0**	**40**	**16.0**	**10.0**	**46**	23.0	20.0	14	23.0	24.0	4	23.0	30.0	26
	Mercury (Inorganic)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Nickel	mg/kg	5 (Primary): 1 (Interlab)	**17.0**	**12.0**	**34**	**17.0**	**8.0**	**72**	**30.0**	**41.0**	**31**	**30.0**	**52.0**	**54**	25.0	27.0	8
	Zinc	mg/kg	5 (Primary): 1 (Interlab)	**38.0**	**28.0**	**30**	**38.0**	**22.0**	**53**	930.0	790.0	16	930.0	730.0	24	**170.0**	**100.0**	**52**
	Phosphorus	mg/kg	5	**240.0**	**640.0**	**91**	-	-	-	22000.0	27000.0	20	-	-	-	**5300.0**	**1300.0**	**121**
Inorganic	Nitrate & Nitrite (as N)	mg/kg	5 (Primary): 10 (Interlab)	<5.0	<5.0	0	**<5.0**	**1200.0**	**198**	**35.0**	**<5.0**	**150**	**35.0**	**6100.0**	**198**	**7.5**	**<5.0**	**40**
	Total Kjeldahl Nitrogen (as N)	mg/kg	10	1100.0	950.0	15	1100.0	1200.0	9	**8000.0**	**4900.0**	**48**	8000.0	6100.0	27	**5600.0**	**1800.0**	**103**
	Total Nitrogen (as N)	mg/kg	10	1100.0	950.0	15	1100.0	-	-	**8035.0**	**4900.0**	**48**	8035.0	-	-	**5610.0**	**1800.0**	**103**
Organic	C6-C9 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0
TPH	C10-C14 Fraction	mg/kg	20 (Primary): 50 (Interlab)	<20.0	<20.0	0	<20.0	<50.0	0	<20.0	<20.0	0	<20.0	<50.0	0	<20.0	<20.0	0
	C15-C28 Fraction	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	<50.0	<100.0	0	<50.0	<50.0	0	<50.0	<100.0	0	57.0	<50.0	13
	C29-C36 Fraction	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	<50.0	<100.0	0	<50.0	<50.0	0	<50.0	100.0	67	**100.0**	**<50.0**	**67**
	C10-C36 Fraction (Total)	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	**<50.0**	**100.0**	**67**	**157.0**	**<50.0**	**103**
Organic	>C10-C16 Fraction	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
	>C16-C34 Fraction	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	110.0	10	130.0	<100.0	26
	>C34-C40 Fraction	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
	>C10-C40 Fraction (Total)	mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	<100.0	<50.0	0	<100.0	<100.0	0	<100.0	110.0	10	130.0	<100.0	26
	>C10-C16 less Naphthalene (F2)	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
	C6-C10 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0
	C6-C10 less BTEX (F1)	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0
Volatile	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.1	0
	Ethylbenzene	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<0.1	0	<0.1	<1.0	0	<0.1	<0.1	0	<0.1	<1.0	0	<0.1	<0.1	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.1	0
	Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<0.1	0	<0.1	<1.0	0	<0.1	<0.1	0	<0.1	<1.0	0	<0.1	<0.1	0
	Xylene (m & p)	mg/kg	0.2 (Primary): 2 (Interlab)	<0.2	<0.2	0	<0.2	<2.0	0	<0.2	<0.2	0	<0.2	<2.0	0	<0.2	<0.2	0
	Xylene (Total)	mg/kg	0.3 (Primary): 1 (Interlab)	<0.3	<0.3	0	<0.3	<1.0	0	<0.3	<0.3	0	<0.3	<1.0	0	<0.3	<0.3	0
Organic	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
PAH	Acenaphthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Acenaphthylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Benz(a)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Benzo(a)pyrene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.5	0
	Benzo(a)pyrene TEQ (lower bound)*	mg/kg	0.5	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0
	Benzo(a)pyrene TEQ (medium bound)*	mg/kg	0.5	0.6	0.6	0	**0.6**	**0.1**	**143**	0.6	0.6	0	**0.6**	**0.1**	**143**	0.6	0.6	0
	Benzo(a)pyrene TEQ (upper bound)*	mg/kg	0.5	1.2	1.2	0	**1.2**	**0.2**	**143**	1.2	1.2	0	**1.2**	**0.2**	**143**	1.2	1.2	0
	Benzo(b,j)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0
	Chrysene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Fluoranthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Fluorene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Phenanthrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	PAHs (Total)	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.5	0
OCP	Hexachlorobenzene	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	4,4-DDE	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Aldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Aldrin + Dieldrin (Sum of Total)	mg/kg	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0
	alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	beta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1	-	-	<0.1	<0.1	0	<0.1	-	-	<0.1	<0.1	0
	Dieldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	DDD	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	DDT	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	DDT+DDE+DDD (Sum of Total)	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	delta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Endosulfan alpha	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Endosulfan beta	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Endosulfan sulphate	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Endrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Endrin aldehyde	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0	<0.05	-	-	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Heptachlor Epoxide	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Lindane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Methoxychlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.05	0
	Toxaphene	mg/kg	1	<1.0	<1.0	0	<1.0	-	-	<1.0	<1.0	0	<1.0	-	-	<1.0	<1.0	0
Heavy Metal	Potassium	mg/kg	5	1800.0	1700.0	6	-	-	-	**1200.0**	**2200.0**	**59**	-	-	-	1900.0	1900.0	0
Inorganic	% Moisture 103oC	%	1	26.0	25.0	4	-	-	-	47.0	42.0	11	-	-	-	27.0	25.0	8

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-10 x EQL); 30 (10-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

TABLE C: DUPLICATE RESULTS TABLE
Project Number: 54892
Project Name: Black Hill

				Primary	Triplicate		Primary	Duplicate		Primary	Triplicate		Primary	Duplicate	
Sample				PTP15_0.0-0.1	QC04A	**RPD**	PTP20_0.0-0.1	QC08	**RPD**	PTP20_0.0-0.1	QC08A	**RPD**	NFTP01_0.5-0.6	QC9	**RPD**
Field ID															
Sampled Date/Time				26/07/2018	26/07/2018		26/07/2018	26/07/2018		26/07/2018	26/07/2018		24/07/2018	24/07/2018	
Method_Type	**ChemName**	**Units**	**EQL**												
OCP	Organochlorine Pesticides EPAVic	mg/kg	0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
	Other Organochlorine Pesticides EPAVic	mg/kg	0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
Heavy Metal	Arsenic (Total)	mg/kg	2 (Primary): 4 (Interlab)	6.7	9.0	29	**6.3**	**10.0**	**45**	**6.3**	**4.0**	**45**	**10.0**	**7.5**	**29**
	Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
	Chromium (Total)	mg/kg	5 (Primary): 1 (Interlab)	24.0	29.0	19	16.0	17.0	6	**16.0**	**6.0**	**91**	35.0	30.0	15
	Copper	mg/kg	5 (Primary): 1 (Interlab)	17.0	13.0	27	28.0	28.0	0	**28.0**	**19.0**	**38**	9.0	7.2	22
	Lead	mg/kg	5 (Primary): 1 (Interlab)	23.0	23.0	0	22.0	25.0	13	22.0	20.0	10	33.0	36.0	9
	Mercury (Inorganic)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Nickel	mg/kg	5 (Primary): 1 (Interlab)	25.0	19.0	27	22.0	24.0	9	**22.0**	**14.0**	**44**	15.0	14.0	7
	Zinc	mg/kg	5 (Primary): 1 (Interlab)	**170.0**	**71.0**	**82**	240.0	280.0	15	**240.0**	**150.0**	**46**	34.0	29.0	16
	Phosphorus	mg/kg	5	-	-	-	-	-	-	-	-	-			
Inorganic	Nitrate & Nitrite (as N)	mg/kg	5 (Primary): 10 (Interlab)	**7.5**	**4000.0**	**199**	-	-	-	-	-	-	-	-	-
	Total Kjeldahl Nitrogen (as N)	mg/kg	10	**5600.0**	**4000.0**	**33**	-	-	-	-	-	-	-	-	-
	Total Nitrogen (as N)	mg/kg	10	5610.0	-	-	-	-	-	-	-	-	-	-	-
Organic	C6-C9 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<25.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0
TPH	C10-C14 Fraction	mg/kg	20 (Primary): 50 (Interlab)	<20.0	<50.0	0	<20.0	<20.0	0	<20.0	<50.0	0	<20.0	<20.0	0
	C15-C28 Fraction	mg/kg	50 (Primary): 100 (Interlab)	57.0	<100.0	0	<50.0	<50.0	0	<50.0	<100.0	0	<50.0	<50.0	0
	C29-C36 Fraction	mg/kg	50 (Primary): 100 (Interlab)	100.0	<100.0	0	<50.0	<50.0	0	<50.0	<100.0	0	<50.0	<50.0	0
	C10-C36 Fraction (Total)	mg/kg	50	**157.0**	**<50.0**	**103**	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
Organic	>C10-C16 Fraction	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
	>C16-C34 Fraction	mg/kg	100	130.0	<100.0	26	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
	>C34-C40 Fraction	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
	>C10-C40 Fraction (Total)	mg/kg	100 (Primary): 50 (Interlab)	**130.0**	**<50.0**	**89**	<100.0	<100.0	0	<100.0	<50.0	0	<100.0	<100.0	0
	>C10-C16 less Naphthalene (F2)	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
	C6-C10 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<25.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0
	C6-C10 less BTEX (F1)	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<25.0	0	<20.0	<20.0	0	<20.0	<25.0	0	<20.0	<20.0	0
Volatile	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.2	0	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.1	0
	Ethylbenzene	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<1.0	0	<0.1	<0.1	0	<0.1	<1.0	0	<0.1	<0.1	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.5	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.1	0
	Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<1.0	0	<0.1	<0.1	0	<0.1	<1.0	0	<0.1	<0.1	0
	Xylene (m & p)	mg/kg	0.2 (Primary): 2 (Interlab)	<0.2	<2.0	0	<0.2	<0.2	0	<0.2	<2.0	0	<0.2	<0.2	0
	Xylene (Total)	mg/kg	0.3 (Primary): 1 (Interlab)	<0.3	<1.0	0	<0.3	<0.3	0	<0.3	<1.0	0	<0.3	<0.3	0
Organic	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
PAH	Acenaphthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Acenaphthylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Benz(a)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Benzo(a)pyrene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.05	0	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.5	0
	Benzo(a)pyrene TEQ (lower bound)*	mg/kg	0.5	-	-	-	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0
	Benzo(a)pyrene TEQ (medium bound)*	mg/kg	0.5	**0.6**	**0.1**	**143**	0.6	0.6	0	**0.6**	**0.1**	**143**	0.6	0.6	0
	Benzo(a)pyrene TEQ (upper bound)*	mg/kg	0.5	**1.2**	**0.2**	**143**	1.2	1.2	0	**1.2**	**0.2**	**143**	1.2	1.2	0
	Benzo(b,j)fluoranthene	mg/kg	0.5	-	-	-	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Benzo(k)fluoranthene	mg/kg	0.5	-	-	-	<0.5	<0.5	0	-	-	-	<0.5	<0.5	0
	Chrysene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Fluoranthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Fluorene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Phenanthrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	Pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.5	0
	PAHs (Total)	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.05	0	<0.5	<0.5	0	<0.5	<0.05	0	<0.5	<0.5	0
OCP	Hexachlorobenzene	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	4,4-DDE	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Aldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Aldrin + Dieldrin (Sum of Total)	mg/kg	0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-
	alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	beta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Chlordane	mg/kg	0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
	Dieldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	DDD	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	DDT	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	DDT+DDE+DDD (Sum of Total)	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	delta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Endosulfan alpha	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Endosulfan beta	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Endosulfan sulphate	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Endrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Endrin aldehyde	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Endrin ketone	mg/kg	0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-
	Heptachlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Heptachlor Epoxide	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Lindane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Methoxychlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0	-	-	-	-	-	-	-	-	-
	Toxaphene	mg/kg	1	<1.0	-	-	-	-	-	-	-	-	-	-	-
Heavy Metal	Potassium	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-
Inorganic	% Moisture 103oC	%	1	-	-	-	27.0	27.0	0	-	-	-	23.0	23.0	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 30 (1-10 x EQL); 30 (10-30 x
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any m

TABLE D: BLANK SAMPLES (SOIL)
Project Number: 54892
Project Name: Black Hill

SDG	609672
Field ID	FB01
Sampled_Date/Time	26/07/2018
Sample Type	Field_B

Method_Type	ChemName	Units	EQL	
Heavy Metal	Arsenic (Total)	mg/l	0.001	<0.001
	Cadmium	mg/l	0.0002	<0.0002
	Chromium (Total)	mg/l	0.001	<0.001
	Copper	mg/l	0.001	<0.001
	Lead	mg/l	0.001	<0.001
	Mercury (Inorganic)	mg/l	0.0001	<0.0001
	Nickel	mg/l	0.001	<0.001
	Zinc	mg/l	0.005	<0.005
Organic	C6-C9 Fraction	mg/l	0.02	<0.02
	>C10-C16 Fraction	mg/l	0.05	<0.05
	>C16-C34 Fraction	mg/l	0.1	<0.1
	>C34-C40 Fraction	mg/l	0.1	<0.1
	>C10-C40 Fraction (Total)	mg/l	0.1	<0.1
	>C10-C16 less Naphthalene (F2)	mg/l	0.05	<0.05
	C6-C10 Fraction	mg/l	0.02	<0.02
	C6-C10 less BTEX (F1)	mg/l	0.02	<0.02
	Naphthalene	mg/l	0.01	<0.01
PAH	Acenaphthene	mg/l	0.001	<0.001
	Acenaphthylene	mg/l	0.001	<0.001
	Anthracene	mg/l	0.001	<0.001
	Benz(a)anthracene	mg/l	0.001	<0.001
	Benzo(a)pyrene	mg/l	0.001	<0.001
	Benzo(b,j)fluoranthene	mg/l	0.001	<0.001
	Benzo(g,h,i)perylene	mg/l	0.001	<0.001
	Benzo(k)fluoranthene	mg/l	0.001	<0.001
	Chrysene	mg/l	0.001	<0.001
	Dibenz(a,h)anthracene	mg/l	0.001	<0.001
	Fluoranthene	mg/l	0.001	<0.001
	Fluorene	mg/l	0.001	<0.001
	Indeno(1,2,3-c,d)pyrene	mg/l	0.001	<0.001
	Naphthalene	mg/l	0.001	<0.001
	Phenanthrene	mg/l	0.001	<0.001
	Pyrene	mg/l	0.001	<0.001
	PAHs (Total)	mg/l	0.001	<0.001
TPH	C10-C14 Fraction	mg/l	0.05	<0.05
	C15-C28 Fraction	mg/l	0.1	<0.1
	C29-C36 Fraction	mg/l	0.1	<0.1
	C10-C36 Fraction (Total)	mg/l	0.1	<0.1
Volatile	Benzene	mg/l	0.001	<0.001
	Ethylbenzene	mg/l	0.001	<0.001
	Toluene	mg/l	0.001	<0.001
	Xylene (o)	mg/l	0.001	<0.001
	Xylene (m & p)	mg/l	0.002	<0.002
	Xylene (Total)	mg/l	0.003	<0.003

TABLE D: BLANK SAMPLES (WATER)
Project Number: 54892
Project Name: Black Hill

Field ID	TRIP BLANK	TRIP SPIKE
Sampled_Date/Time	26/07/2018	26/07/2018
Sample Type	Trip_B	Trip_S

Method_Type	ChemName	Units	EQL		
Organic	C6-C10 Fraction	mg/kg	20	<20	93

Historic Results Summary Tables

TABLE HA1: HISTORICAL SOIL RESULTS (INDUSTRIAL ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

					Metals & Metalloids								Non-Metallic Inorganics							TPHs (NEPC 1999)					TRHs (NEPC 2013)						HS (NZ MfE 19		BTEX					
					Organochlorine Pesticides EPAVic	Asbestos Amosite	Asbestos Chrysotile	Ion Exchange	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Ammonia	Nitrate & Nitrite (as N)	Nitrate (as N)	Nitrite (as N)	Phosphorus	Total Kjeldahl Nitrogen (as N)	Total Nitrogen (as N)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	C10-C14	C15-C36	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
					mg/kg	g/kg	g/kg	meq/100g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.10	0.10	0.10	0.05	2.00	0.40	1.00	1.00	1.00	0.10	1.00	1.00	0.50	5.00	0.50	0.10	5.00	10.00	10.00	20.00	20.00	50.00	50.00	50.00	100.00	100.00	50.00	20.00	20.00	50.00	100.00	0.10	0.10	0.10	0.10	0.20	0.30
NEPM 2013 Soil HIL D									3000[#7]	900	3600[#8]	240000	1500[#9]	730[#10]	6000	400000																									
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																															NL[#14]		260[#15]			**3**	**NL**	**NL**			**230**
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																															NL[#14]		370[#15]			**3**	**NL**	**NL**			**NL**
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D																																								
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																								
CRC Care Direct Contact HSL-D Commercial / Industrial (Sept 2011)																													20000	27000	38000		26000			430	27000	99000			81000
CRC Care Direct Contact Intrusive Maintenance Worker (Sept 2011)																													62000	85000	120000		82000			1100	85000	120000			130000
NEPC 2013 EIL, EILs Aged Sediment									160		1000	80	1800		360	230																								
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																													170[#1]	1700[#2]	3300[#1]	170[#2]		215[#2]			75[#1]	165[#1]	135[#1]			180[#1]
NSWEPA Biosolids																																									
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																													1000[#5]	3500	10000		700[#6]								
Sample ID	**Sampled Date**	**Location**	**Sample Depth**	**Previous Report**																																				
BH1/0-0.2	1/09/2003	BH1	0-0.2	EES, ESA, 2003	-	-	-	-	7	<0.5	14	31	16	0.055	39	160	-	-	-	-	480	-	930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2/1-1.2	1/09/2003	BH2	1-1.2	EES, ESA, 2003	-	-	-	-	4	<0.5	17	15	12	0.01	16	45	-	-	-	-	120	-	1060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3/1-1.2	1/09/2003	BH3	1-1.2	EES, ESA, 2003	-	-	-	-	5.5	<0.5	25	47	20	0.005	46	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6/0.2-0.4	1/09/2003	BH6	0.2-0.4	EES, ESA, 2003	-	-	-	-	4.5	<0.5	12	16	7	0.01	19	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7/0-0.2	1/09/2003	BH7	0-0.2	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH8/1.4-1.6	1/09/2003	BH8	1.4-1.6	EES, ESA, 2003	-	-	-	-	7	<0.5	14	18	10	0.03	45	87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10/0.95-1.1	1/09/2003	BH10	0.95-1.1	EES, ESA, 2003	-	-	-	-	3.5	<0.5	7.5	9	7	0.01	4.5	14	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH10/2.5-2.6	1/09/2003	BH10	2.5-2.6	EES, ESA, 2003	-	-	-	-	4.5	<0.5	6	8	14	0.1	27	76	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
BH11/0-0.1	1/09/2003	BH11	0-0.1	EES, ESA, 2003	-	-	-	-	17	1.5	47	100	85	0.02	25	1450	-	-	-	-	-	-	-	<25	-	1200	-	-	-	-	-	-	-	-	<50	190	<0.5	<0.5	<0.5	-	-	<1
BH11/0.5-0.6	1/09/2003	BH11	0.5-0.6	EES, ESA, 2003	-	-	-	-	4	<0.5	12	10	10	0.01	7	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11/1.5-1.7	1/09/2003	BH11	1.5-1.7	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH12/0.6-0.8	1/09/2003	BH12	0.6-0.8	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH13/0.8-0.9	1/09/2003	BH13	0.8-0.9	EES, ESA, 2003	-	<0.1	<0.1	-	5	<0.5	17	10	19	0.03	29	94	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH14/0.2-0.3	1/09/2003	BH14	0.2-0.3	EES, ESA, 2003	-	-	-	-	5	<0.5	18	4.5	16	0.02	12	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14/1.1-1.2	1/09/2003	BH14	1.1-1.2	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH15/0.8-0.9	1/09/2003	BH15	0.8-0.9	EES, ESA, 2003	-	-	-	-	4	<0.5	6	3	7	0.025	6	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/0.2-0.3	1/09/2003	BH16	0.2-0.3	EES, ESA, 2003	-	-	-	-	4.5	<0.5	7	3.5	12	0.02	2.5	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16/1-1.2	1/09/2003	BH16	1-1.2	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.05	<0.5	<0.5	-	-	<1
BH17/0.4-0.6	1/09/2003	BH17	0.4-0.6	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
BH17/1-1.2	1/09/2003	BH17	1-1.2	EES, ESA, 2003	-	-	-	-	3.5	<0.5	5.5	1.5	8	0.005	2.5	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18/0-0.1	1/09/2003	BH18	0-0.1	EES, ESA, 2003	-	-	-	-	5	<0.5	19	15	7	0.02	13	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH19/0.3-0.4	1/09/2003	BH19	0.3-0.4	EES, ESA, 2003	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH20/0-0.2	1/09/2003	BH20	0-0.2	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH20/0.4-0.6	1/09/2003	BH20	0.4-0.6	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	830	-	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH20/0.5-0.6	1/09/2003	BH20	0.5-0.6	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
BH22/0.8-1	1/09/2003	BH22	0.8-1	EES, ESA, 2003	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
BH23/0.9-1	1/09/2003	BH23	0.9-1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH24/0.1-0.2	1/09/2003	BH24	0.1-0.2	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170	-	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25/1-1.2	1/09/2003	BH25	1-1.2	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
BH26/0-0.1	1/09/2003	BH26	0-0.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
BH26/1.8-2	1/09/2003	BH26	1.8-2	EES, ESA, 2003	-	-	-	-	3.5	<0.5	9	2	12	0.01	3	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH27/0.5-0.6	1/09/2003	BH27	0.5-0.6	EES, ESA, 2003	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
BH27/0.9-1	1/09/2003	BH27	0.9-1	EES, ESA, 2003	-	-	-	-	6	<0.5	4	11	8	0.02	2.5	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH28/0-0.1	1/09/2003	BH28	0-0.1	EES, ESA, 2003	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH28/0.8-0.9	1/09/2003	BH28	0.8-0.9	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4690	-	14,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FARM10	1/09/2003	FARM10	0-0	EES, ESA, 2003	-	>0.1	>0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS1	1/09/2003	SS1	0-0.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	<0.5	<0.5	<0.5	-	-	<1
SS1	1/09/2003	SS1	0.5-0.6	EES, ESA, 2003	-	-	-	-	4.5	<0.5	6	3	15	0.005	17	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS2	1/09/2003	SS2	0-0.1	EES, ESA, 2003	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS2	1/09/2003	SS2	0.7-0.8	EES, ESA, 2003	-	-	-	-	5.5	0.5	5	32	12	0.01	5	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS3	1/09/2003	SS3	0-0.1	EES, ESA, 2003	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS4	1/09/2003	SS4	0-0.1	EES, ESA, 2003	-	<0.1	<0.1	-	7	2	5.5	110	34	0.04	7	1720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS5	1/09/2003	SS5	0-0.1	EES, ESA, 2003	-	<0.1	<0.1	-	6	2	4.5	200	35	0.03	7.5	2400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS6	1/09/2003	SS6	0-0.1	EES, ESA, 2003	-	<0.1	<0.1	-	8	1.5	3.5	60	30	0.015	6	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS7	1/09/2003	SS7	0-0.1	EES, ESA, 2003	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS8	1/09/2003	SS8	0-0.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
SS9	1/09/2003	SS9	0-0.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
SS11	1/09/2003	SS11	0-0.1	EES, ESA, 2003	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS22	1/09/2003	SS22	0-0.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
TP1/BASE	1/09/2003	TP1 (base)	2-2.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<25	-	<100	-	-	-	-	-	-	-	-	<50	<100	-	-	-	-	-	-
TP/WALL	1/09/2003	TP1 (wall)	0-0.1	EES, ESA, 2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1530	-	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP1	12/03/2004	Farm 10, Shed B floor	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP2	12/03/2004	Farm 10, Shed A floor	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP3	12/03/2004	Farm 10, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP4	12/03/2004	Farm10, site of demolished shed	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP5	12/03/2004	Farm 15, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP6	12/03/2004	Farm 11, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP7	12/03/2004	Farm 12, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP8	12/03/2004	Farm12, shed	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP9	12/03/2004	Farm 18, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP10	12/03/2004	Farm 9, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP11	12/03/2004	Farm 17, Shed A litter, nest boxes, footings	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP12	12/03/2004	Farm 7, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP13	12/03/2004	Farm 1, house yard (office)	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP14	12/03/2004	Farm 5, Shed A litter	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP15	12/03/2004	Farm 4, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP16	12/03/2004	Farm 3, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP17	12/03/2004	Farm 2, house yard	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP18	12/03/2004	Farm 2, Shed A, netting litter	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DP19	12/03/2004	Fresh cow manure	Surface	DP, MRA, 2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-01	1/09/2013	TP01	0.25	NAA, SCI, 2013	-	-	-	-	6.4	<0.4	19	9.9	8.4	<0.05	16	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-02	1/09/2013	TP03	0.2	NAA, SCI, 2013	-	-	-	-	3	<0.4	<5	<5	5.8	<0.05	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-03	1/09/2013	TP04	0.4	NAA, SCI, 2013	-	-	-	-	4.5	<0.4	10	<5	6.5	<0.05	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-04	1/09/2013	TP05	0.4	NAA, SCI, 2013	-	-	-	-	15	<0.4	21	<5	26	<0.05	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-05	1/09/2013	TP06	0.25	NAA, SCI, 2013	-	-	-	-	35	0.7	32	27	25	0.07	21	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3

TABLE HA1: HISTORICAL SOIL RESULTS (INDUSTRIAL ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

					Metals & Metalloids								Non-Metallic Inorganics							TPHs (NEPC 1999)					TRHs (NEPC 2013)						Hs (NZ MfE 19		BTEX					
					Organochlorine Pesticides EPAVic	Asbestos Amosite	Asbestos Chrysotile	Ion Exchange	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Ammonia	Nitrate & Nitrite (as N)	Nitrate (as N)	Nitrite (as N)	Phosphorus	Total Kjeldahl Nitrogen (as N)	Total Nitrogen (as N)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	C10-C14	C15-C36	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
					mg/kg	g/kg	g/kg	meq/100g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.10	0.10	0.10	0.05	2.00	0.40	1.00	1.00	1.00	0.10	1.00	1.00	0.50	5.00	0.50	0.10	5.00	10.00	10.00	20.00	20.00	50.00	50.00	50.00	50.00	100.00	100.00	50.00	20.00	20.00	50.00	100.00	0.10	0.10	0.10	0.10	0.20	0.30
NEPM 2013 Soil HIL D									3000[17]	900	3600[18]	240000	1500[19]	730[410]	6000	400000																									
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																														NL[414]		260[415]			**3**	**NL**	**NL**			**230**
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																														NL[414]		370[415]			**3**	**NL**	**NL**			**NL**
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D																																								
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																								
CRC Care Direct Contact HSL-D Commercial / Industrial (Sept 2011)																												20000	27000	38000		26000			430	27000	99000			81000
CRC Care Direct Contact Intrusive Maintenance Worker (Sept 2011)																												62000	85000	120000		82000			1100	85000	120000			130000
NEPC 2013 EIL, EILs Aged Sediment									160		1000	80	1800		360	230																							
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																												170[41]	1700[41]	3300[41]	170[42]		215[42]			75[41]	165[41]	135[41]			180[41]
NSWEPA Biosolids																																								
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																												1000[45]	3500	10000		700[46]								
Sample ID	**Sampled Date**	**Location**	**Sample Depth**	**Previous Report**																																				
SO-06	1/09/2013	TP07	0.4	NAA, SCI, 2013	-	-	-	-	7.9	<0.4	8	<5	21	<0.05	8.4	9.1	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-07	1/09/2013	TP09	0.3	NAA, SCI, 2013	-	-	-	-	4	<0.4	12	8	10	<0.05	11	24	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-08	1/09/2013	TP12	0.2	NAA, SCI, 2013	-	-	-	-	5.2	<0.4	6.8	9.7	29	<0.05	27	67	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-09	1/09/2013	#16	#16	NAA, SCI, 2013	-	-	-	-	7.8	<0.4	13	<5	20	<0.05	9.2	21	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-10	1/09/2013	TP15	0.3	NAA, SCI, 2013	-	-	-	-	9.8	<0.4	14	6.8	18	<0.05	9.9	38	-	-	-	-	-	-	-	-	-	-	-	<50	100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-11	1/09/2013	TP16	0.4	NAA, SCI, 2013	-	-	-	-	9.8	<0.4	15	16	21	0.08	14	140	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-12	1/09/2013	TP17	0.5	NAA, SCI, 2013	-	-	-	-	9.3	<0.4	11	9.6	39	<0.05	27	80	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-13	1/09/2013	TP21	0.3	NAA, SCI, 2013	-	-	-	-	2.8	<0.4	16	<5	12	<0.05	<5	19	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-14	1/09/2013	TP23	0.3	NAA, SCI, 2013	-	-	-	-	<2	<0.4	6	<5	10	<0.05	<5	21	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-15	1/09/2013	TP25	0.35	NAA, SCI, 2013	-	-	-	-	5	<0.4	18	9.6	8.2	<0.05	5.5	17	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-16	1/09/2013	TP29	0.3	NAA, SCI, 2013	-	-	-	-	<2	<0.4	5.3	<5	6.3	<0.05	7	32	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-17	1/09/2013	TP30	0.5	NAA, SCI, 2013	-	-	-	-	3.6	<0.4	7.6	6.9	<5	<0.05	7	23	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-21	1/09/2013	TP35	0.6	NAA, SCI, 2013	-	-	-	-	9.7	<0.4	15	42	12	<0.05	20	290	620	-	0.1	<0.1	19,000	2900	2900	-	-	-	-	<50	140	120	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-22	1/09/2013	TP37	0.3	NAA, SCI, 2013	-	-	-	-	2.6	<0.4	6.3	15	9.5	<0.1	10	76	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-23	1/09/2013	TP44	0.4	NAA, SCI, 2013	-	-	-	-	3	0.6	25	8.4	16	<0.1	12	43	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-24	1/09/2013	TP48	1	NAA, SCI, 2013	-	-	-	-	2.2	0.6	29	13	14	<0.1	12	39	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-25	1/09/2013	TP49	0.5	NAA, SCI, 2013	-	-	-	-	4.9	<0.4	5.6	<5	9.9	<0.1	8.6	30	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-26	1/09/2013	TP51	0.4	NAA, SCI, 2013	-	-	-	-	4.6	0.6	34	14	17	<0.1	15	30	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-27	1/09/2013	TP54	0.25	NAA, SCI, 2013	-	-	-	-	2.2	<0.4	11	9.2	16	<0.1	8.9	38	<5	-	<5	<5	87	2000	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-28	1/09/2013	TP56	0.2	NAA, SCI, 2013	-	-	-	34	3.3	0.4	12	5.8	18	<0.1	9.2	30	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-29	1/09/2013	TP57	0.5	NAA, SCI, 2013	-	-	-	-	6.4	<0.4	19	9.9	8.4	<0.05	16	34	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-30	1/09/2013	TP59	0.5	NAA, SCI, 2013	-	-	-	-	3	<0.4	<5	<5	5.8	<0.05	<5	<5	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-31	1/09/2013	TP60	0.6	NAA, SCI, 2013	-	-	-	-	4.5	<0.4	10	<5	6.5	<0.05	<5	<5	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-32	1/09/2013	TP62	0.4	NAA, SCI, 2013	-	-	-	-	15	<0.4	21	<5	26	<0.05	14	14	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-33	1/09/2013	TP63	0.8	NAA, SCI, 2013	-	-	-	-	35	0.7	32	27	25	0.07	21	170	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-34	1/09/2013	TP64	0.1	NAA, SCI, 2013	-	-	-	-	7.9	<0.4	8	<5	21	<0.05	8.4	9.1	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-35	1/09/2013	TP65	0.6	NAA, SCI, 2013	-	-	-	-	4	<0.4	12	8	10	<0.05	11	24	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-36	1/09/2013	TP66	0.2	NAA, SCI, 2013	-	-	-	-	5.2	<0.4	6.8	9.7	29	<0.05	27	67	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-37	1/09/2013	TP67	0.6	NAA, SCI, 2013	-	-	-	-	7.8	<0.4	13	<5	20	<0.05	9.2	21	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-38	1/09/2013	TP69	0.15	NAA, SCI, 2013	-	-	-	-	9.8	<0.4	14	6.8	18	<0.05	9.9	38	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-39	1/09/2013	TP70	0.25	NAA, SCI, 2013	-	-	-	-	9.8	<0.4	15	16	21	0.08	14	140	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-40	1/09/2013	TP72	0.5	NAA, SCI, 2013	-	-	-	-	9.3	<0.4	11	9.6	39	<0.05	27	80	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-41	1/09/2013	TP73	0.4	NAA, SCI, 2013	-	-	-	-	2.8	<0.4	16	<5	12	<0.05	<5	19	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-42	1/09/2013	TP74	0.4	NAA, SCI, 2013	-	-	-	-	<2	<0.4	6	<5	10	<0.05	<5	21	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-43	1/09/2013	TP75	0.3	NAA, SCI, 2013	-	-	-	-	5	<0.4	18	9.6	8.2	<0.05	5.5	17	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-44	1/09/2013	TP76	0.1	NAA, SCI, 2013	-	-	-	-	<2	<0.4	5.3	<5	6.3	<0.05	7	32	-	-	-	-	-	-	-	-	-	-	-	640	4900	290	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	0.4
SO-45	1/09/2013	TP77	0.3	NAA, SCI, 2013	-	-	-	-	3.6	<0.4	7.6	6.9	<5	<0.05	7	23	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-46	1/09/2013	TP78	0.3	NAA, SCI, 2013	-	-	-	-	<2	<0.4	<5	<5	<5	<0.05	<5	9.7	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-47	1/09/2013	TP79	0.4	NAA, SCI, 2013	-	-	-	-	2.4	<0.4	12	<5	12	<0.05	14	27	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-48	1/09/2013	TP80	0.4	NAA, SCI, 2013	-	-	-	-	5.3	<0.4	16	16	12	<0.05	14	25	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-49	1/09/2013	TP81	0.4	NAA, SCI, 2013	-	-	-	-	9.7	<0.4	15	42	12	<0.05	20	290	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-50	1/09/2013	TP82	0.4	NAA, SCI, 2013	-	-	-	-	2.6	<0.4	6.3	15	9.5	<0.1	10	76	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-51	1/09/2013	TP83	0.4	NAA, SCI, 2013	-	-	-	-	3	0.6	25	8.4	16	<0.1	12	43	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-52	1/09/2013	TP84	0.5	NAA, SCI, 2013	-	-	-	-	2.2	0.6	29	13	14	<0.1	12	39	-	-	-	-	-	-	-	-	-	-	-	170	760	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-53	1/09/2013	TP85	0.2	NAA, SCI, 2013	-	-	-	-	4.9	<0.4	5.6	<5	9.9	<0.1	8.6	30	<5	-	<5	<5	34	1300	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-54	1/09/2013	TP86	0.2	NAA, SCI, 2013	-	-	-	-	4.6	0.6	34	14	17	<0.1	15	30	6.3	-	<5	<5	80	2400	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-55	1/09/2013	TP88	0.3	NAA, SCI, 2013	-	-	-	-	2.2	<0.4	11	9.2	16	<0.1	8.9	38	<5	-	<5	<5	<10	1700	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-56	1/09/2013	TP90	0.2	NAA, SCI, 2013	-	-	-	-	3.3	0.4	12	5.8	18	<0.1	9.2	30	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-57	1/09/2013	TP91	0.2	NAA, SCI, 2013	-	-	-	-	2.8	<0.4	5.6	6	41	<0.1	<5	17	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-58	1/09/2013	#16	#16	NAA, SCI, 2013	-	-	-	-	<2	<0.4	9.2	13	9.8	<0.1	6.6	30	-	-	-	-	-	-	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-59	1/09/2013	TP94	0.3	NAA, SCI, 2013	-	-	-	-	5.1	<0.4	12	13	11	<0.1	12	33	<5	-	<5	<5	<10	1600	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
SO-60	1/09/2013	TP95	1.4	NAA, SCI, 2013	0	-	-	-	<2	<0.4	15	16	9.3	<0.1	8.3	20	3400	-	<5	<5	<10	3100	-	-	-	-	-	<50	<100	<100	-	<20	-	-	-	<0.1	<0.1	<0.1	-	-	<0.3
TP05 0.1-0.3	24/10/2017	TP05	0.1-0.3	JBS&G 2017	-	-	-	-	14	<0.4	21	<5	20	<0.1	<5	33	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<50	<100	<100	<50	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP06 0.1-0.3	24/10/2017	TP06	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	1100	1100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06 0.0-1.0	24/10/2017	TP06	0-1	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP06 1.0-1.5	24/10/2017	TP06	1-1.5	JBS&G 2017	-	-	-	-	16	<0.4	19	5.7	24	<0.1	9.3	37	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<50	<100	<100	<50	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP07 0.1-0.3	24/10/2017	TP07	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	2200	2200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP07 0.6-0.8	24/10/2017	TP07	0.6-0.8	JBS&G 2017	-	-	-	-	12	<0.4	17	13	19	<0.1	8.5	93	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<50	<100	<100	<50	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP10 0.0-1.0	24/10/2017	TP10	0-1	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11 0.0-1.0	24/10/2017	TP11	0-1	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14 0.0-0.6	24/10/2017	TP14	0-0.6	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16 0.0-0.4	25/10/2017	TP16	0-0.4	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19 FG	25/10/2017	TP19	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19 0.0-0.2	25/10/2017	TP19	0-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP21 0.0-0.5	25/10/2017	TP21	0-0.5	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26 0.0-0.3	25/10/2017	TP26	0-0.3	JBS&G 2017	-	-	-	-	13	<0.4	5.9	78	21	<0.1	5.1	64	-	-	-	-	-	-	-	<20	77	480	180	737	100	520	<100	100	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP30 0.0-0.3	25/10/2017	TP30	0-0.3	JBS&G 2017	-	-	-	-	21	<0.4	7.4	49	22	0.2	8.2	190	-	-	-	-	-	-	-	<20	70	430	170	670	86	490	<100	86	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP37 FRAGMENTS	26/10/2017	TP37	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP37 0.0-0.7	26/10/2017	TP37	0-0.7	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP41 FRAGMENTS	26/10/2017	TP41	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP41 0.0-0.2	26/10/2017	TP41	0-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP42 FRAGMENTS	26/10/2017	TP42	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP42 0.0-0.2	26/10/2017	TP42	0-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP43 0.0-0.4	26/10/2017	TP43	0-0.4	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP46 0.1-0.3	26/10/2017	TP46	0.1-0.3	JBS&G 2017	-	-	-	-	16	<0.4	25	22	39	<0.1	28	1200	-	-	-	-	-	-	-	<20	<20	<50	51	51	<50	<100	<100	<50	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3

TABLE HA1: HISTORICAL SOIL RESULTS (INDUSTRIAL ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

					Metals & Metalloids								Non-Metallic Inorganics							TPHs (NEPC 1999)					TRHs (NEPC 2013)						Hs (NZ MfE 19		BTEX					
					Organochlorine Pesticides EPAVic	Asbestos Amosite	Asbestos Chrysotile	Ion Exchange	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Ammonia	Nitrate & Nitrite (as N)	Nitrate (as N)	Nitrite (as N)	Phosphorus	Total Kjeldahl Nitrogen (as N)	Total Nitrogen (as N)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Total)	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	>C10-C16 less Naphthalene (F2)	C6-C10 Fraction	C6-C10 less BTEX (F1)	C10-C14	C15-C36	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (m & p)	Xylene (Total)
					mg/kg	g/kg	g/kg	meq/100g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.10	0.10	0.10	0.05	2.00	0.40	1.00	1.00	1.00	0.10	1.00	1.00	0.50	5.00	0.50	0.10	5.00	10.00	10.00	20.00	20.00	50.00	50.00	50.00	100.00	100.00	50.00	20.00	20.00	50.00	100.00	0.10	0.10	0.10	0.10	0.20	0.30
NEPM 2013 Soil HIL D									3000[#7]	900	3600[#8]	240000	1500[#9]	730[#10]	6000	400000																									
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																															NL[#14]		260[#15]			3	NL	NL			230
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																															NL[#14]		370[#15]			3	NL	NL			NL
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D																																									
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																									
CRC Care Direct Contact HSL-D Commercial / Industrial (Sept 2011)																													20000	27000	38000		26000			430	27000	99000			81000
CRC Care Direct Contact Intrusive Maintenance Worker (Sept 2011)																													62000	85000	120000		82000			1100	85000	120000			130000
NEPC 2013 EIL, EILs Aged Sediment									160		1000	80	1800		360	230																								
NEPM 2013 ESL Commercial and Industrial, Coarse Soil																													170[#1]	1700[#1]	3300[#1]	170[#2]		215[#2]		75[#1]	165[#1]	135[#1]			180[#1]
NSWEPA Biosolids																																									
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																													1000[#5]	3500	10000		700[#6]								

Sample ID	Sampled Date	Location	Sample Depth	Previous Report																																				
TP46 0.0-0.6	26/10/2017	TP46	0-0.6	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP52 0.1-0.2	26/10/2017	TP52	0.1-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	1700	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP57 0.1-0.25	26/10/2017	TP57	0.1-0.25	JBS&G 2017	-	-	-	-	7.9	<0.4	7	15	8.2	<0.1	9.7	53	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<50	<100	<100	<50	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP10 0.5-0.7	27/10/2017	TP10	0.5-0.7	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	1900	1900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP59 0.0-0.15	27/10/2017	TP59	0-0.15	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP60 0.1-0.2	27/10/2017	TP60	0.1-0.2	JBS&G 2017	-	-	-	-	11	<0.4	17	20	19	<0.1	25	350	-	-	-	-	-	-	-	<20	<20	<50	<50	<50	<50	<100	<100	<50	<20	<20	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3
TP61 0.0-0.6	27/10/2017	TP61	0-0.6	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP62 0.1-0.3	27/10/2017	TP62	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	4500	4500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP69 0.0-0.3	27/10/2017	TP69	0-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP70 0.1-0.3	27/10/2017	TP70	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP72 FRAGMENTS	27/10/2017	TP72	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP72 0.0-0.3	27/10/2017	TP72	0-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP72 0.1-0.3	27/10/2017	TP72	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	1700	1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP73 FRAGMENTS	27/10/2017	TP73	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP73 0.1-0.3	27/10/2017	TP73	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	-	-	-	11,000	11,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP73 0.0-0.4	27/10/2017	TP73	0-0.4	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Env Stds Comments

#1:ESLs are of low reliability.
#2:ESLs are of moderate reliability.
#3:Commercial/industrial D includes premises such as shops, offices, factories and industrial sites.
#4:The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.
#5:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fractions to obtain F1 and F2.
#6:Limits applied after consideration of relevant ESLs and HSLs
#7:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#8:TV adopted from Chromium (VI)
#9:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#10:Refer to HSL and soil saturation concentration limit.
#11:Refer to Section 8.2 and Appendix J in Friebel and Nadebaum (2011a).
#12:TV maybe be multiplied by a factor to account for biodegradation of vapour
#13:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaken
#14:To obtain F2 subtract naohthalene from >C10-C16.
#15:To obtain F1 subtract the sum of BTEX from C6-C10.
#16: Location not provided in bore logs

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No respirable fibres detected.
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No respirable fibres detected.
#3 ACM:Chrysotile asbestos detected in fibre cement fragments.Approximate raw weight of ACM = 0.93gTotal estimated asbestos content in ACM = 0.065g*Total estimated asbestos concentration in ACM = 0.013% w/w*Organic fibre detected.No respirable fibres detected
#4 Microbiological Testing performed outside the recommended holding time
#5 ACM:Chrysotile asbestos detected in fibre cement fragments.
#6 No asbestos detected.Synthetic mineral fibre detected.
#7 Chrysotile and amosite asbestos detected.
#8 Synthetic mineral fibres detected.
#9 No respirable fibres detected.
#10 Chrysotile asbestos detected.
#11 Organic fibres detected.
#12 ESDAT Combined.
#13 130x100x10
#14 130x65x10
#15 130x50x10
#16 110x30x5
#17 80x50x13
#18 115x50x3
#19 Nil

TABLE HA1: HISTORICAL SOIL RESULTS (INDUSTRIAL ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

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TABLE HA1: HISTORICAL SOIL RESULTS (INDUSTRIAL ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

					Polycyclic Aromatic Hydrocarbons																				Chl. Benz.								Microbiological		Asbestos										Asbestos		Asbestos - Trace Analysis									
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TEQ	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Hexachlorobenzene	PCBs (Total)	Aldrin + Dieldrin (Sum of Total)	Chlordane	DDT+DDE+DDD (Sum of Total)	Endosulfan	Endrin	Heptachlor	Methoxychlor	E.coli	Total Coliforms	Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF	Asbestos Reported Result	Asbestos Sample Dimensions	ACM - Comment	AF - Comment	FA - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	pH (field)	% Moisture 103oC
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MPN/G	MPN/G	g	%w/w	%w/w	g	g	g	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	Comment	ph Units	%
EQL					0.10	0.10	0.10	0.10	0.05	0.50	0.50	0.50	0.50	0.10	0.50	0.10	0.10	0.10	0.10	0.10	1.00	0.10	0.10	0.10	0.05	0.05	0.10	0.05	0.10	0.05	0.05	0.05	0.05	0.05	1.00	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00
NEPM 2013 Soil HIL D										40	40	40									[#11] 40				4000 [#12]	80	7 [#13]	45	530	3600	2000	100	50	2500																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																						NL																																		
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																						NL																																		
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D																																				[#2] 0.05																				
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																					[#4] 0.001																		
CRC Care Direct Contact HSL-D Commercial / Industrial (Sept 2011)																						11000																																		
CRC Care Direct Contact Intrusive Maintenance Worker (Sept 2011)																						29000																																		
NEPC 2013 EIL, EILs Aged Sediment																						370																																		
NEPM 2013 ESL Commercial and Industrial, Coarse Soil									1.4 [#1]																																														
NSWEPA Biosolids																																		100	1000																				
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																						
Sample ID	**Sampled Date**	**Location**	**Sample Depth**	**Previous Report**																																																					
SO-06	1/09/2013	TP07	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	1	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-07	1/09/2013	TP09	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-08	1/09/2013	TP12	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	11	4600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	-
SO-09	1/09/2013	#16	#16	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-10	1/09/2013	TP15	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	<1	11,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-11	1/09/2013	TP16	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	16	1400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-12	1/09/2013	TP17	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-13	1/09/2013	TP21	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-14	1/09/2013	TP23	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-15	1/09/2013	TP25	0.35	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-16	1/09/2013	TP29	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	<0.05	<0.5	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-17	1/09/2013	TP30	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-21	1/09/2013	TP35	0.6	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	<0.05	<0.5	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	11	6900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	-
SO-22	1/09/2013	TP37	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	<10	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-23	1/09/2013	TP44	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-24	1/09/2013	TP48	1	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-25	1/09/2013	TP49	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-26	1/09/2013	TP51	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-27	1/09/2013	TP54	0.25	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	<10	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-28	1/09/2013	TP56	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3	-
SO-29	1/09/2013	TP57	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-30	1/09/2013	TP59	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-31	1/09/2013	TP60	0.6	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-32	1/09/2013	TP62	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-33	1/09/2013	TP63	0.8	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-34	1/09/2013	TP64	0.1	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-35	1/09/2013	TP65	0.6	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-36	1/09/2013	TP66	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-37	1/09/2013	TP67	0.6	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-38	1/09/2013	TP69	0.15	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	10	6000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-39	1/09/2013	TP70	0.25	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	52	910	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-40	1/09/2013	TP72	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-41	1/09/2013	TP73	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-42	1/09/2013	TP74	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-
SO-43	1/09/2013	TP75	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-44	1/09/2013	TP76	0.1	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	3.7	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-45	1/09/2013	TP77	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-46	1/09/2013	TP78	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-47	1/09/2013	TP79	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-48	1/09/2013	TP80	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-49	1/09/2013	TP81	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-50	1/09/2013	TP82	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-
SO-51	1/09/2013	TP83	0.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-52	1/09/2013	TP84	0.5	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	1.7	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-53	1/09/2013	TP85	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	<10	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-54	1/09/2013	TP86	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	170	24,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-55	1/09/2013	TP88	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	150	360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-56	1/09/2013	TP90	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-57	1/09/2013	TP91	0.2	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-58	1/09/2013	#16	#16	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-59	1/09/2013	TP94	0.3	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	<10	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SO-60	1/09/2013	TP95	1.4	NAA, SCI, 2013	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-
TP05 0.1-0.3	24/10/2017	TP05	0.1-0.3	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	11,000	64	0	0	0	0	0	0	0	0	0	[#2] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	16
TP06 0.1-0.3	24/10/2017	TP06	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
TP06 0.0-1.0	24/10/2017	TP06	0-1	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	723	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP06 1.0-1.5	24/10/2017	TP06	1-1.5	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
TP07 0.1-0.3	24/10/2017	TP07	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
TP07 0.6-0.8	24/10/2017	TP07	0.6-0.8	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
TP10 0.0-1.0	24/10/2017	TP10	0-1	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	675	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP11 0.0-1.0	24/10/2017	TP11	0-1	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	584	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP14 0.0-0.6	24/10/2017	TP14	0-0.6	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	560	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP16 0.0-0.4	25/10/2017	TP16	0-0.4	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	626	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP19 FG	25/10/2017	TP19	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	0	0	0	0	0	[#6] 0	[#18] 1	[#19] 1	[#19] 1	[#20] 1	[#21] 1	[#8] 1	-	-
TP19 0.0-0.2	25/10/2017	TP19	0-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	407	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP21 0.0-0.5	25/10/2017	TP21	0-0.5	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	512	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP26 0.0-0.3	25/10/2017	TP26	0-0.3	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	1.6	<0.5	1.6	-	-	-	-	-	-	-	-	-	-	418	0	0	0	0	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	13
TP30 0.0-0.3	25/10/2017	TP30	0-0.3	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	1.3	<0.5	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
TP37 FRAGMENTS	26/10/2017	TP37	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	0	0	0	0	0	[#7] 0	[#18] 1	[#19] 1	[#19] 1	[#20] 1	[#21] 1	[#8] 1	-	-
TP37 0.0-0.7	26/10/2017	TP37	0-0.7	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#20] 1	[#21] 1	[#8] 1	-	-
TP41 FRAGMENTS	26/10/2017	TP41	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193	0	0	0	0	0	[#7] 0	[#15] 1	[#19] 1	[#19] 1	[#20] 1	[#21] 1	[#8] 1	-	-
TP41 0.0-0.2	26/10/2017	TP41	0-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	662	0	0	0	0	0	[#1] 0	-	[#19] 1	[#19] 1	[#20] 1	[#21] 1	[#8] 1	-	-
TP42 FRAGMENTS	26/10/2017	TP42	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	299	0	0	0	0	0	[#7] 0	[#13] 1	[#19] 1	[#19] 1	[#20] 1	[#21] 1	[#8] 1	-	-
TP42 0.0-0.2	26/10/2017	TP42	0-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	496	0.0131	0	0.9251	0.0648	0	0	0	0	0	[#1] 0	-	[#5] 1	[#19] 1	[#19] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP43 0.0-0.4	26/10/2017	TP43	0-0.4	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	580	0	0	0	0	0	[#1] 0	-	[#19] 1	[#18] 1	[#20] 1	[#11] 1	[#9] 1	[#19] 1	-	-
TP46 0.1-0.3	26/10/2017	TP46	0.1-0.3	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19

TABLE HA1: HISTORICAL SOIL RESULTS (INDUSTRIAL ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

					Polycyclic Aromatic Hydrocarbons																				Chl. Benz.									Microbiological		Asbestos										Asbestos		Asbestos - Trace Analysis								
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TEQ	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Hexachlorobenzene	PCBs (Total)	Aldrin + Dieldrin (Sum of Total)	Chlordane	DDT+DDE+DDD (Sum of Total)	Endosulfan	Endrin	Heptachlor	Methoxychlor	E.coli	Total Coliforms	Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF	Asbestos Reported Result	Asbestos Sample Dimensions	ACM - Comment	AF - Comment	FA - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	pH (field)	% Moisture 103oC
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MPN/G	MPN/G	g	%w/w	%w/w	g	g	g	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	Comment	ph Units	%
EQL					0.10	0.10	0.10	0.10	0.05	0.50	0.50	0.50	0.50	0.10	0.50	0.10	0.10	0.10	0.10	0.10	1.00	0.10	0.10	0.10	0.05	0.05	0.10	0.05	0.10	0.05	0.05	0.05	0.05	0.05	1.00	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00
NEPM 2013 Soil HIL D										40	40	40									40[#11]				4000[#12]	80	7[#13]	45	530	3600	2000	100	50	2500																							
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																						NL																																	
NEPM 2013 Soil HSL D for Vapour Intrusion - Sand 1 to <2m																						NL																																	
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Commercial/Industrial - HSL D																																					0.05 [#2]																			
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																						0.001 [#4]																	
CRC Care Direct Contact HSL-D Commercial / Industrial (Sept 2011)																						11000																																	
CRC Care Direct Contact Intrusive Maintenance Worker (Sept 2011)																						29000																																	
NEPC 2013 EIL, EILs Aged Sediment																						370																																	
NEPM 2013 ESL Commercial and Industrial, Coarse Soil									1.4[#1]																																															
NSWEPA Biosolids																																				100	1000																			
NEPM 2013 Mgnt Limits - Commercial and Industrial, Coarse																																																							
Sample ID	**Sampled Date**	**Location**	**Sample Depth**	**Previous Report**																																																					
TP46 0.0-0.6	26/10/2017	TP46	0-0.6	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	410	0	0	0	0	0	0	0	0	0	1[#1]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-
TP52 0.1-0.2	26/10/2017	TP52	0.1-0.2	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	0	0	0	0	0	0	0	0	0	1[#2]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	14
TP57 0.1-0.25	26/10/2017	TP57	0.1-0.25	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	2100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2
TP10 0.5-0.7	27/10/2017	TP10	0.5-0.7	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
TP59 0.0-0.15	27/10/2017	TP59	0-0.15	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	0	0	0	0	0	0	0	0	0	1[#2]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-
TP60 0.1-0.2	27/10/2017	TP60	0.1-0.2	JBS&G 2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.21	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	>24,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
TP61 0.0-0.6	27/10/2017	TP61	0-0.6	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	501	0	0	0	0	0	0	0	0	0	1[#1]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-
TP62 0.1-0.3	27/10/2017	TP62	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
TP69 0.0-0.3	27/10/2017	TP69	0-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	463	0	0	0	0	0	0	0	0	0	1[#1]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-
TP70 0.1-0.3	27/10/2017	TP70	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	0	0	0	0	0	0	0	0	0	1[#2]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-
TP72 FRAGMENTS	27/10/2017	TP72	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	0	0	0	0	0	0	0	0	0	1[#7]	1[#17]	1[#19]	1[#19]	1[#19]	1[#19]	1[#19]	1[#19]	-	-
TP72 0.0-0.3	27/10/2017	TP72	0-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	451	0	0	0	0	0	0	0	0	0	1[#5]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-
TP72 0.1-0.3	27/10/2017	TP72	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
TP73 FRAGMENTS	27/10/2017	TP73	FRAGMENTS	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	0	0	0	0	0	0	0	0	0	1[#10]	1[#14]	1[#19]	1[#19]	1[#19]	1[#19]	1[#19]	1[#19]	-	-
TP73 0.1-0.3	27/10/2017	TP73	0.1-0.3	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
TP73 0.0-0.4	27/10/2017	TP73	0-0.4	JBS&G 2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	348	0	0	0	0	0	0	0	0	0	1[#1]	-	1[#19]	1[#19]	1[#19]	1[#11]	1[#8]	1[#19]	-	-

Env Stds Comments

#1:ESLs are of low reliability.
#2:ESLs are of moderate reliability.
#3:Commercial/industrial D includes premises such as shops, offices, factories and industrial sites.
#4:The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and A
#5:Management limits of BTEX and naphthalene are not available, hence should not be subtracted from the relevant fractions to obtai
#6:Limits applied after consideration of relevant ESLs and HSLs
#7:Key limitations of HSL should be referred to prior to application in Friebel and Nadebaum (2011b and 2011d).
#8:TV adopted from Chromium (VI)
#9:Assumptions of HSL are presented in Friebel and Nadebaum (2011a and 2011b).
#10:Refer to HSL and soil saturation concentration limit.
#11:Refer to Section B.2 and Appendix J in Friebel and Nadebaum (2011a).
#12:TV maybe be multiplied by a factor to account for biodegradation of vapour
#13:HIL relates to non-dioxin-like PCBs only. If PCB source is suspected a site-specific assessment should be untertaken
#14:To obtain F2 subtract naohthalene from >C10-C16.
#15:To obtain F1 subtract the sum of BTEX from C6-C10.
#16: Location not provided in bore logs

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w *Organic fibre detected.No respirable fibres detected.
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No respirable fibres detected.
#3 ACM:Chrysotile asbestos detected in fibre cement fragments.Approximate raw weight of ACM = 0.93gTotal estimated asbestos content in ACM = 0.065g*Total estimated asbestos concentration in ACM = 0.013% w/w*Organic fibre detected.No respirable fibres detected
#4 Microbiological Testing performed outside the recommended holding time
#5 ACM:Chrysotile asbestos detected in fibre cement fragments.
#6 No asbestos detected.Synthetic mineral fibre detected.
#7 Chrysotile and amosite asbestos detected.
#8 Synthetic mineral fibres detected.
#9 No respirable fibres detected.
#10 Chrysotile asbestos detected.
#11 Organic fibres detected.
#12 ESDAT Combined.
#13 130x100x10
#14 130x65x10
#15 130x50x10
#16 110x30x5
#17 80x50x13
#18 115x50x3
#19 Nil

TABLE HA2: HISTORICAL SOIL RESULTS (E2 ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

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TABLE HA2: HISTORICAL SOIL RESULTS (E2 ZONED AREAS)
Project Number: 54892
Project Name: Black Hill

		Polycyclic Aromatic Hydrocarbons																					Chl. Benz.		Microbiological		Asbestos										Asbestos	Asbestos - Trace Analysis							
		Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TEQ	Naphthalene	Phenanthrene	Pyrene	PAHs (Total)	Hexachlorobenzene	PCBs (Total)	Aldrin + Dieldrin (Sum of Total)	Chlordane	DDT+DDE+DDD (Sum of Total)	Endosulfan	Endrin	Heptachlor	Methoxychlor	E.coli	Total Coliforms	Approx. Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Mass ACM	Mass Asbestos in ACM	Mass FA	Mass Asbestos in FA	Mass AF	Mass Asbestos in AF	Mass Asbestos in FA & AF	Asbestos Reported Result	ACM - Comment	AF - Comment	FA - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	% Moisture 103oC
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MPN/G	MPN/G	g	%w/w	%w/w	g	g	g	g	g	g	g	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	Comment	%
EQL		0.10	0.10	0.10	0.10	0.05	0.50	0.50	0.50	0.50	0.10	0.50	0.10	0.10	0.10	0.10	0.10	1.00	0.10	0.10	0.10	0.05	0.05	0.10	0.05	0.10	0.05	0.05	0.05	0.05	0.05	1.00	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00
NEPM 2013 Soil HILC							3	3	3									$3^{#11}$				$300^{#13}$	10	$1^{#13}$	10	70	400		20	10	400																				
NEPM 2013 Soil HSL C for Vapour Intrusion - Sand 0 to <1m																			NL																														
NEPM 2013 Soil HSL C for Vapour Intrusion - Sand 1 to <2m																			NL																														
NEPM 2013 HSL Asbestos in Soil - Bonded ACM - Recreational - HSL C																																	$0.02^{#3}$																
NEPM 2013 HSL Asbestos in Soil - FA & AF - HSL																																		$0.001^{#4}$															
CRC Care Direct Contact HSL-C Recreational / Open Space (Sept 2011)																			1900																														
NEPC 2013 EIL, EILs Aged Sediment																			10																														
NEPM 2013 ESL Areas of Ecological Significance, Coarse Soil						$0.7^{#1}$																																									
NSWEPA Biosolids																															100	1000																
NEPM 2013 Mgnt Limits - Residential, Parkland and Public Open Space, Coarse																																															

| Sample ID | Sampled Date | Location | Sample Depth | Previous Report | | | | | | | | | | | | | | | | | | |

TABLE HB: HISTORICAL WATER RESULTS
Project Number: 54892
Project Name: Black Hill

	NA		Metals & Metalloids								Non-Metallic Inorganics						TPHs (NEPC 1999)				TRHs (NEPC 2013)				BTEX						PAHs			Microbiological			M. Cations				M. Anions			
	Ammonium Ion	Hydrogen bicarbonate	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Ammonia	Fluoride	Nitrate (as N)	Nitrite (as N)	Phosphate total (as P)	Phosphorus	Total Nitrogen (as N)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6-C10 Fraction	Benzene	Ethylbenzene	Toluene	Xylene (o)	Xylene (p)	Xylene (Total)	Benzo(a)pyrene	Naphthalene	PAHs (Total)	Coliforms, fecal (Escherichia coli)	E.coli	Total Coliforms	Calcium	Magnesium	Potassium	Sodium	Chloride	Sulphate	pH (field)	Total Dissolved Solids (Filtered)
	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	MPN/100mL	MPN/100mL	MPN/100mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ph Units	mg/L
EQL	0.10	0.20	0.00	0.20	0.00	0.00	0.00	0.10	0.00	0.01	<0.01	0.01	0.10	0.00	0.10	0.01	0.01	0.02	0.05	0.10	0.10	0.05	0.10	0.10	0.02	0.001	0.001	0.001	0.001	0.002	0.003	0.001	0.001	0.001	20.00	20.00	20.00	0.50	0.50	0.50	0.50	1.00	2.00	-	5.00
ANZECC 2000 Fresh Water 95%	0.744[#5]			0.2	0.001[#2]	0.0014	0.0034	0.6	0.011	0.008	0.744[#1;#3;#4]		2.4[#6]													0.95			0.35	0.2			0.016												
Australian Drinking Water (2011) (as amended Oct 2017) (factor 10) – Health			0.1	20		20	0.1	10	0.2			15	112.9[#6]	92[#6]					0.9[#7]	0.9[#7]	0.9[#7]	0.9[#7]	0.9[#7]	0.9[#7]		0.01	3	8			6	0.0001				0.0001[#8]									

GROUNDWATER SAMPLES

Sample ID	Sampled Date	Location	Previous Report																																										
BH15	30/07/2003	BH15	EES, ESA, 2003	0.2	500	-	-	-	-	-	-	-	-	0.39	<0.1	-	0.18	-	-	<0.025	<0.025	<0.1	<0.1	-	-	-	-	<0.001	<0.001	<0.001	-	-	<0.002	<0.001	-	<0.001	-	-	-	21	41	6	250	210	90	6.7	880
BH16	30/07/2003	BH16	EES, ESA, 2003	<0.1	560	-	-	-	-	-	-	-	-	0.62	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	110	28	980	1550	170	6.7	3250
GMW no. 1	25/06/2013	GMW no. 1	NAA, SCI, 2013	-	-	0.003	<0.1	<0.001	<0.001	<0.001	0.2	0.006	0.047	3.5	-	-	3.8	-	0.12	1.7	-	-	-	-	<0.05	<0.1	<0.1	0.03	<0.001	<0.001	0.002	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	<20	<20	<20	260	<0.5	51	1300	5500	12	12	9700
GMW no. 2	25/06/2013	GMW no. 2	NAA, SCI, 2013	-	-	0.005	<0.1	<0.001	<0.001	<0.001	<0.1	0.014	0.026	3.3	-	-	0.06	-	4.8	<0.01	-	-	-	-	<0.05	<0.1	<0.1	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	1300	1300	1700	34	32	13	100	61	2.5	7	500
GMW no. 3	25/06/2013	GMW no. 3	NAA, SCI, 2013	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	0.62	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40	40	-	-	-	-	-	-	6.8	7100

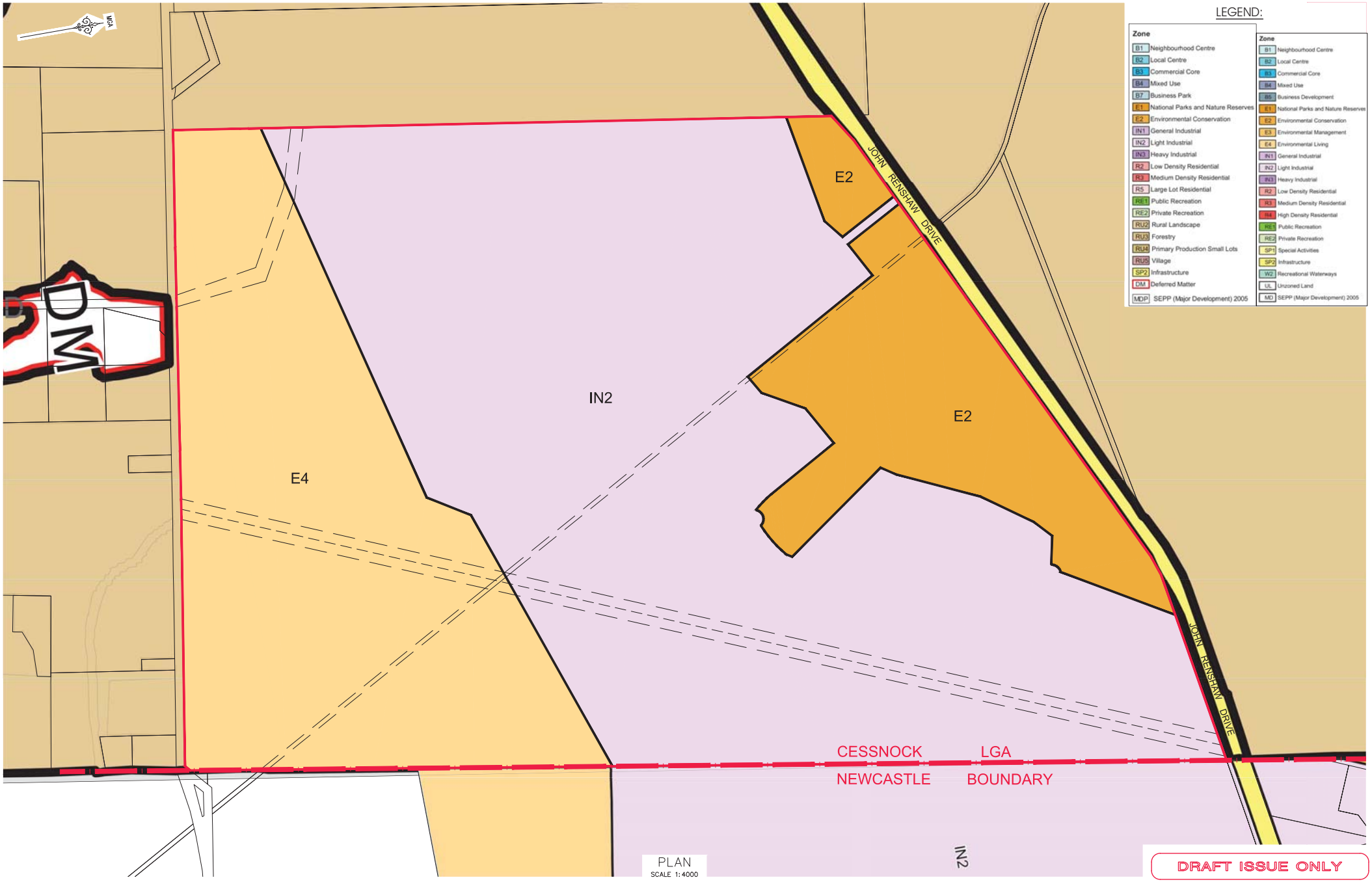
SURFACE WATER SAMPLES

Sample ID	Sampled Date	Location	Previous Report																																										
W01	25/06/2013	Duck Pond	NAA, SCI, 2013	-	-	0.004	<0.1	<0.001	<0.001	<0.001	0.1	0.003	<0.005	0.01	-	-	<0.01	-	34	4.7	-	-	-	-	<0.05	<0.1	<0.1	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	20	<20	170	-	-	-	-	-	-	7.6	540
W02	25/06/2013	Pig Pond	NAA, SCI, 2013	-	-	-	-	-	-	-	-	-	-	0.66	-	-	0.01	-	7.7	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170	50	220	-	-	-	-	-	-	7.1	190
W03	25/06/2013	Poultry Digester	NAA, SCI, 2013	-	-	<0.001	<0.1	<0.001	<0.001	<0.001	<0.1	0.001	0.012	3.3	-	-	<0.01	-	0.11	5	-	-	-	-	<0.05	0.1	<0.1	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	170	20	220	-	-	-	-	-	-	7.9	290
W04	25/06/2013	North Creek Line Entrance	NAA, SCI, 2013	-	-	-	-	-	-	-	-	-	-	0.04	-	-	<0.01	-	0.13	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130	<20	130	-	-	-	-	-	-	7.2	160
W05	25/06/2013	North Creek Line Exit	NAA, SCI, 2013	-	-	0.002	<0.1	<0.001	0.004	<0.001	<0.1	0.003	0.015	0.09	-	-	<0.01	-	0.37	1.5	-	-	-	-	<0.05	<0.1	<0.1	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	460	230	460	-	-	-	-	-	-	7.1	180
W06	25/06/2013	South Creek Line Exit	NAA, SCI, 2013	-	-	0.002	<0.1	<0.001	<0.001	<0.001	<0.1	0.005	0.015	0.25	-	-	0.02	-	2.1	4.4	-	-	-	-	<0.05	<0.1	<0.1	<0.02	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	790	790	790	-	-	-	-	-	-	7.1	330
W07	25/06/2013	South Creek Line Entrance	NAA, SCI, 2013	-	-	0.003	<0.1	<0.001	0.002	<0.001	0.4	0.003	0.009	0.8	-	-	<0.01	-	0.01	4.7	-	-	-	-	0.05	0.2	<0.1	<0.02	<0.001	<0.001	0.001	<0.001	<0.002	<0.003	<0.001	<0.001	<0.001	11,000	17,000	11,000	-	-	-	-	-	-	6.8	60
W08	25/06/2013	South Creek Line Entrance	NAA, SCI, 2013	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	<0.01	-	0.08	0.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	11,000	1,300	-	-	-	-	-	-	7.3	620

Env Stds Comments

#1:Trigger value converted from Ammonia (adjust for pH 6 - 9 Table 8.3.7)
#2:Conservative trigger value taken from CrVI. Speciation maybe required.
#3:Ammonia freshwater trigger value (adjust for pH 6 - 9 Table 8.3.7)
#4:Based on NIWA 2013 Nitrate toxicity effects on freshwater species
#5:Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 50mg/L for Nitrate and Nitrate
#6:Calculated using ratio of molecular weight of N and O to NHMRC Guideline Value of 3mg/L for Nitrate and Nitrate
#7:Adopted from WHO Petroleum Products in Drinking Water 2008
#8:TV is 0, 0.0001 used to highlight exceedance. E. Coli should not be present in any 100mL sample of water.

Appendix A Proposed Development Plans



239590-CENG-001(C)

100mm AT FULL SIZE

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	09.06.2017	INITIAL ISSUE	Z.J.	R.K.	Z.J.	R.K.
B	14.08.2017	AMENDMENTS PER INSTRUCTION	Z.J.	R.K.	Z.J.	R.K.
C	25.09.2017	UPDATE ROAD & PAD DESIGNS, ADD SERVICE SHEETS	Z.J.	R.K.	Z.J.	R.K.

SCALES: 0 100 200 A1 / A3 1:4000 / 1:8000

DESIGN FILE N:\JOBNUMBER\Design\12D\

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adw Johnson
Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: F & F PROPERTIES

PROPERTY DESCRIPTION: BLACK HILL INDUSTRIAL SUBDIVISION LOT 1131 D.P.1057179 JOHN RENSHAW DRIVE, BLACK HILL DEVELOPMENT APPLICATION

SURVEYED: ADW Johnson

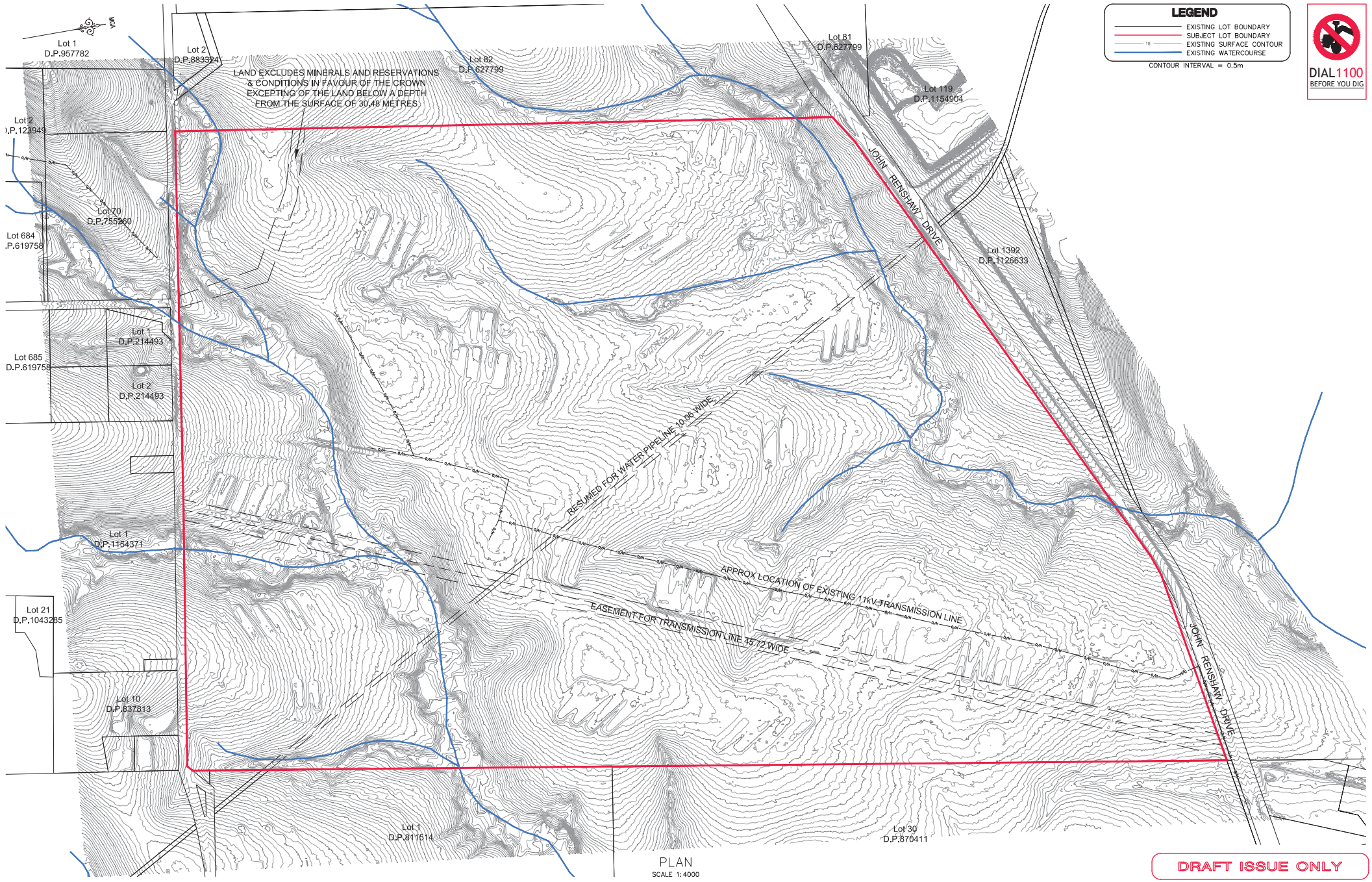
DATUM: A.H.D.

PROJECT: BLACK HILL CONCEPT PLANS

PLAN TITLE: TYPICAL ZONING PLAN

PROJECT No. 239590 – DISCIPLINE CENG – NUMBER 001 REV. C

Plotted By: zacj Plot Date: 25/09/17 – 17:23 Cad File: N:\239590\Drawings\Engineering\Civil\CONCEPT\239590-CENG-001(C).dwg



239590-CENG-002(C)

100mm AT FULL SIZE

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B	14.08.2017	AMENDMENTS PER INSTRUCTION	Z.J.	R.K.	Z.J.	R.K.
C	25.09.2017	UPDATE ROAD & PAD DESIGNS, ADD SERVICE SHEETS	Z.J.	R.K.	Z.J.	R.K.

SCALES: 0 100 200 A1 / A3 1:4000 / 1:8000

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Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email:hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: F & F PROPERTIES

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SURVEYED: ADW Johnson

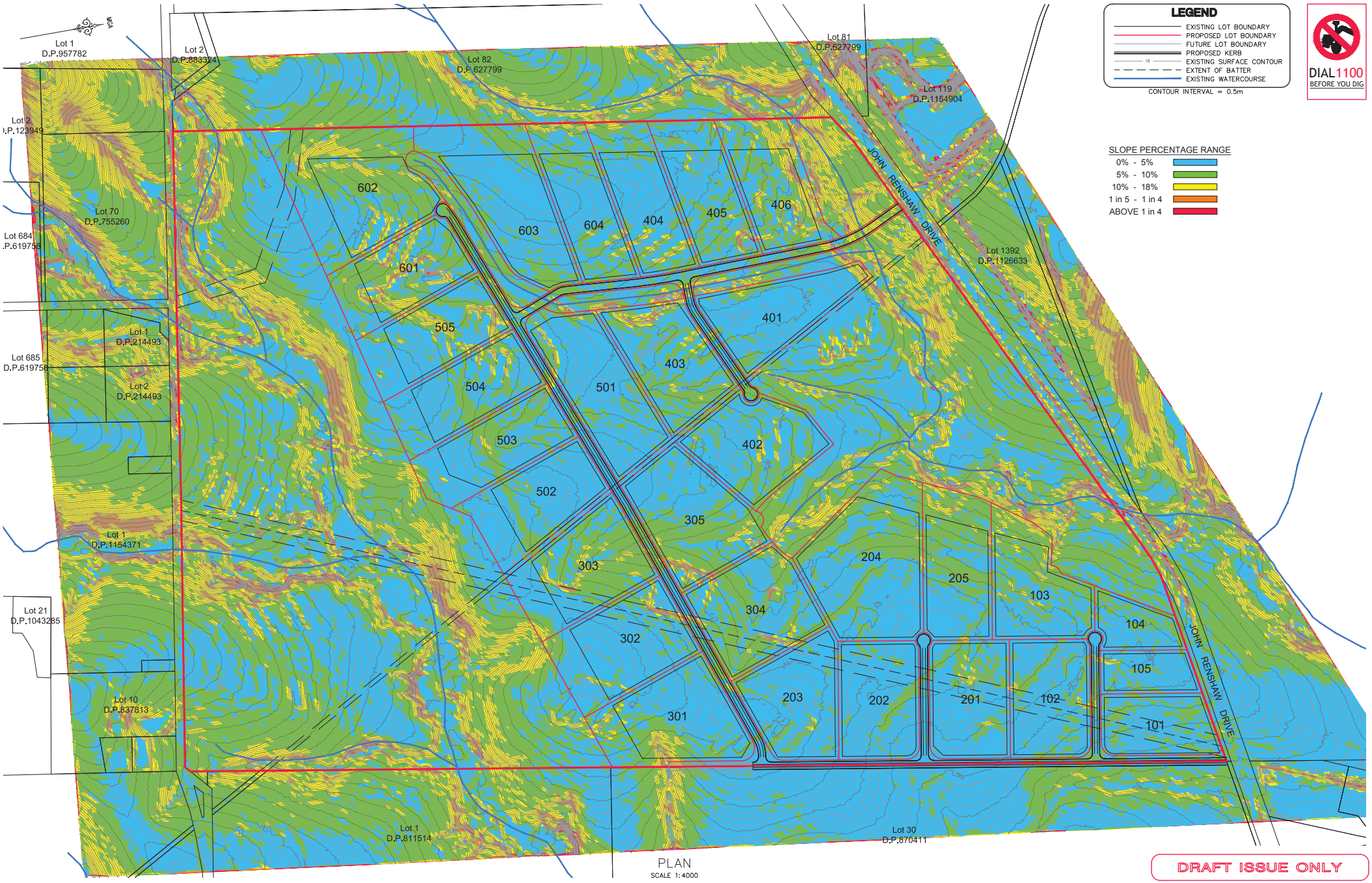
DATUM: A.H.D.

PROJECT: BLACK HILL CONCEPT PLANS

PLAN TITLE: OVERALL SITE PLAN (EXISTING CONTOURS)

PROJECT No.		DISCIPLINE		NUMBER	REV.
239590	-	CENG	-	002	C

Plotted By: zacj Plot Date: 25/09/17 - 17:23 Cad File: N:\239590\Drawings\Engineering\Civil\CONCEPT\239590-CENG-002(C).dwg



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SCALE 1:4000

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239590-CENG-003(C)

100mm AT FULL SIZE

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B	14.08.2017	AMENDMENTS PER INSTRUCTION	Z.J.	R.K.	Z.J.	R.K.
C	25.09.2017	UPDATE ROAD & PAD DESIGNS, ADD SERVICE SHEETS	Z.J.	R.K.	Z.J.	R.K.

SCALES: 0 100 200 A1 / A3 1:4000 / 1:8000

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adw Johnson
Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: F & F PROPERTIES

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SURVEYED: ADW Johnson

DATUM: A.H.D.

PROJECT: BLACK HILL CONCEPT PLANS

PLAN TITLE: EXISTING SITE GRADES

PROJECT No.	DISCIPLINE	NUMBER	REV.
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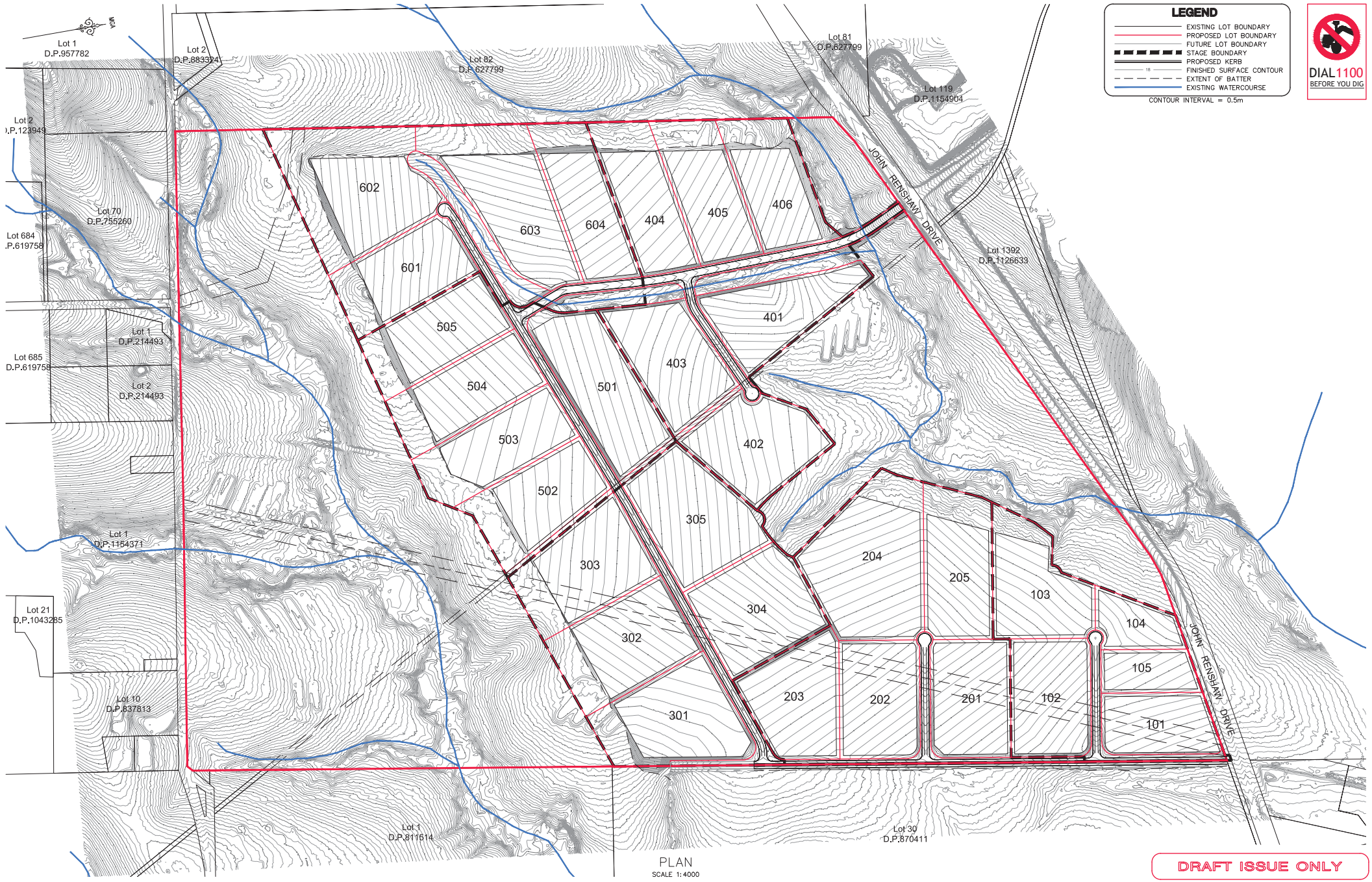

PLAN
SCALE 1:4000

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239590-CENG-004(C)

100mm AT FULL SIZE

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B	14.08.2017	AMENDMENTS PER INSTRUCTION	Z.J.	R.K.	Z.J.	R.K.
C	25.09.2017	UPDATE ROAD & PAD DESIGNS, ADD SERVICE SHEETS	Z.J.	R.K.	Z.J.	R.K.

SCALES: 0 100 200 A1 / A3 1:4000 / 1:8000

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adw Johnson
Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: F & F PROPERTIES

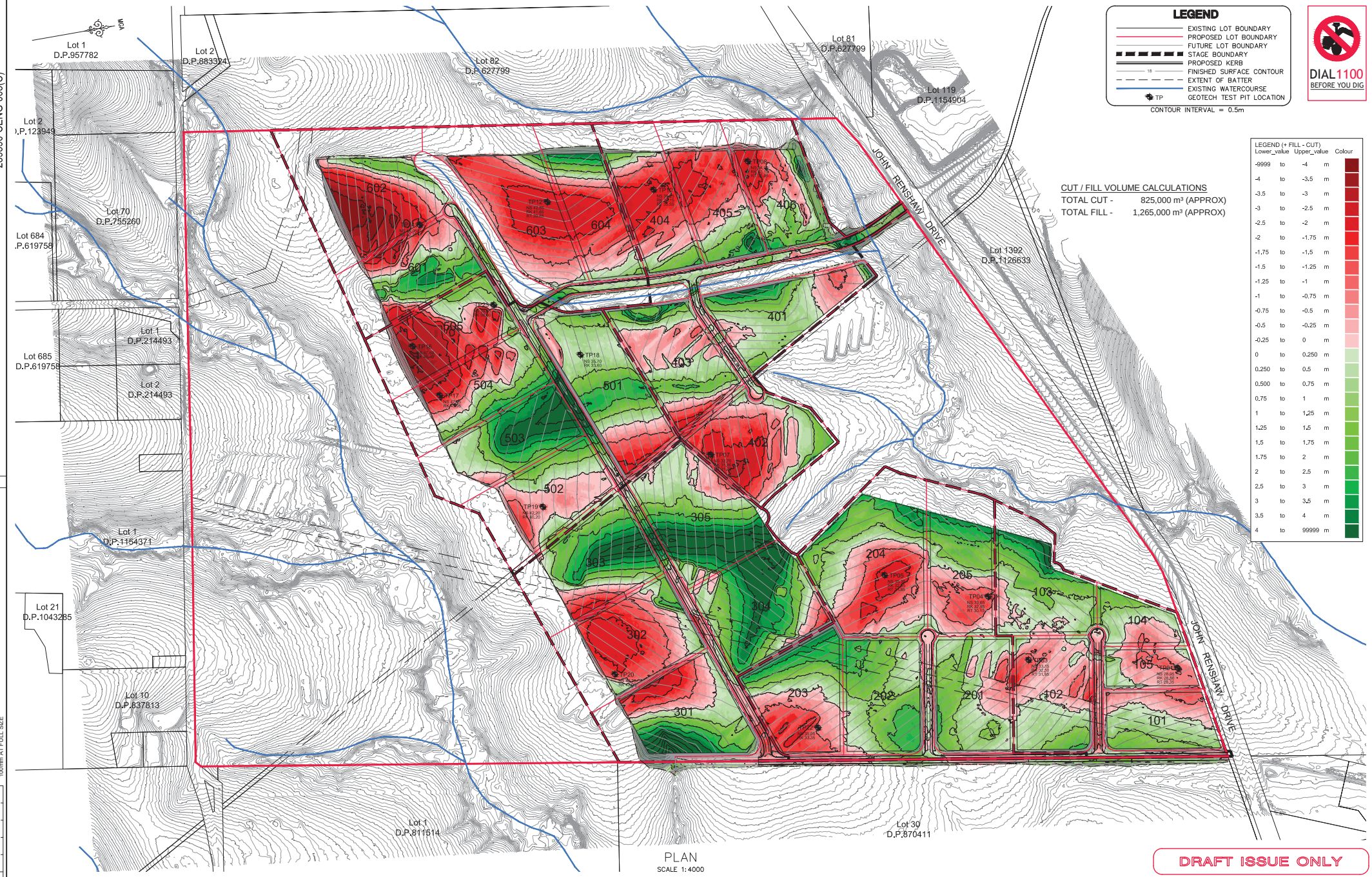
PROPERTY DESCRIPTION: BLACK HILL INDUSTRIAL SUBDIVISION LOT 1131 D.P.1057179 JOHN RENSHAW DRIVE, BLACK HILL DEVELOPMENT APPLICATION

PROJECT: BLACK HILL CONCEPT PLANS

PLAN TITLE: REGRADING PLAN (DESIGN CONTOURS)

SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
ADW Johnson	A.H.D.	239590	CENG	004	C

Plotted By: zacj Plot Date: 25/09/17 - 17:24 Cad File: N:\239590\Drawings\Engineering\Civil\CONCEPT\239590-CENG-004(C).dwg



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100mm AT FULL SIZE

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B	14.08.2017	AMENDMENTS PER INSTRUCTION	Z.J.	R.K.	Z.J.	R.K.
C	25.09.2017	UPDATE ROAD & PAD DESIGNS, ADD SERVICE SHEETS	Z.J.	R.K.	Z.J.	R.K.

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adw Johnson
Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email:hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: F & F PROPERTIES

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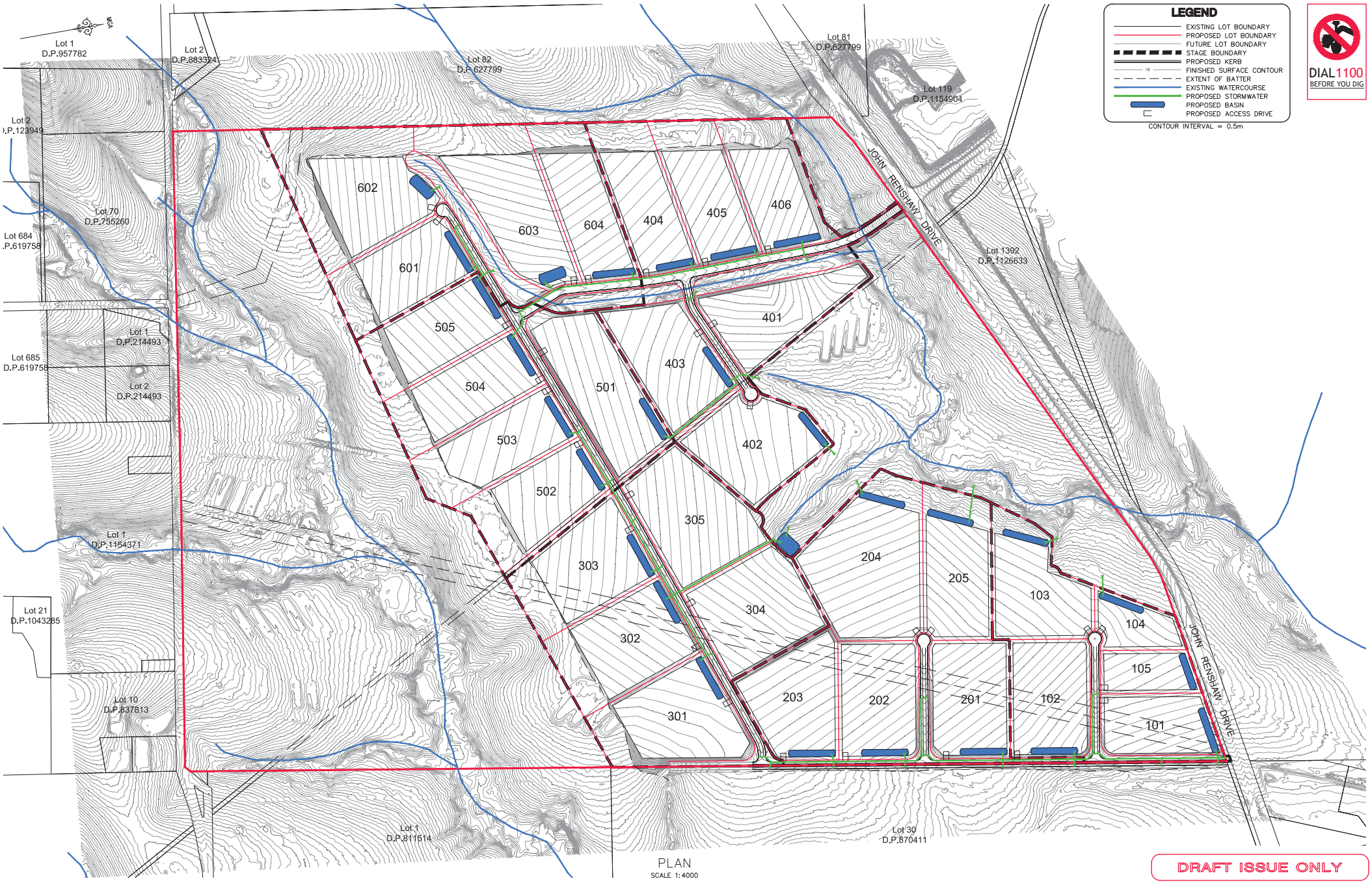
PROJECT: BLACK HILL CONCEPT PLANS

PLAN TITLE: EARTHWORKS PLAN

SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
ADW Johnson	A.H.D.	239590	CENG	005	C

Plotted By: zacj Plot Date: 25/09/17 - 17:24 Cad File: N:\239590\Drawings\Engineering\Civil\CONCEPT\239590-CENG-005(C).dwg



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REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	09.06.2017	INITIAL ISSUE	Z.J.	R.K.	Z.J.	R.K.
B	14.08.2017	AMENDMENTS PER INSTRUCTION	Z.J.	R.K.	Z.J.	R.K.
C	25.09.2017	UPDATE ROAD & PAD DESIGNS, ADD SERVICE SHEETS	Z.J.	R.K.	Z.J.	R.K.

SCALES: 0 100 200 A1 / A3 1:4000 / 1:8000

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adw Johnson
Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: F & F PROPERTIES

PROPERTY DESCRIPTION: BLACK HILL INDUSTRIAL SUBDIVISION LOT 1131 D.P.1057179 JOHN RENSHAW DRIVE, BLACK HILL DEVELOPMENT APPLICATION

SURVEYED: ADW Johnson

DATUM: A.H.D.

PROJECT: BLACK HILL CONCEPT PLANS

PLAN TITLE: STORMWATER MANAGEMENT PLAN

PROJECT No.	DISCIPLINE	NUMBER	REV.
239590	CENG	006	C

239590-CENG-006(C)

100mm AT FULL SIZE

Plotted By: zacj Plot Date: 25/09/17 - 17:24 Cad File: N:\239590\Drawings\Engineering\Civil\CONCEPT\239590-CENG-006(C).dwg

Appendix B Previous Investigations

Table 1 – Areas of Interest

Area	Description	Photo
A	**Former Diagnostic Laboratory.** Former diagnostic laboratory, incinerator present at rear, used to incinerate lab wastes? Dead birds? No historical information provided to confirm details of incineration activities.	 *Photo 2*
	Incinerator observed to contain ash materials, glass laboratory equipment (test tubes, vaccine bottles, foil).	 *Photo 3*
	Ash materials also observed at surface behind the incinerator (including glass bottles, test tubes and foil).	 *Photo 4*
	Some building rubble (bricks/concrete) also present behind incinerator area to the rear of the incinerator appears to have been used for dumping of lab wastes.	

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
B1	**Boar Shed** Boar Shed – used for experimentation on various animals? Filling (wastes?) present at rear of shed. Discharge of drainage waters from shed via PVC pipe to creek at the rear. Pile of fibro fragments, metal, red 44 gallon drum (empty) plus scattered fill (concrete footing, timber post etc) Scattered rubbish, metal pipe, rubber matting, bricks, concrete, tarp along creek bank (building rubble)	 *Photo 5* *Photo 6*
B2		
C	**Vaccine Lab** Former incinerator ? (incinerator currently not present). Used to incinerate dead birds from quarantine area? Ash disposal locations not known. Transpiration system present is similar to Farm 8 system. Possible contamination issues with transpiration area associated with lab activities.	 *Photo 7*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
	Vaccine lab	
D1	Bird digester tanks, details regarding contents and potential contamination not assessed.	*Photo 8*
D2	Burial trench north of Vaccine lab (contents unknown), between former sheds used to house birds for vaccine trials.	*Photo 9*
	Farms 11, 12 and 15	
E1	Farm 12 – former pig farm. Series of small sheds in 1987 photo with only one remaining today. Former sheds comprised timber slatted floors. Green rectangular grass areas likely to be former shed areas. Truck wash located within Farm 12. Elevated contaminants/nutrients ground at the truck wash may be associated with the former pig farm activities. Sheds with timber slatted floors were likely to have a subfloor pit, which have since been filled? May contain demo waste. Subfloor pits may have been lined with asbestos materials similar to Farm 10.	*Photo 10*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
E1 Continued	Depressions (possible burial trenches) evident west of the existing shed within E1 (Note: Farm 15 and 11 may also have been utilised for pig farming prior to chickens)	
E2	**Farm 11, 12 and 15** Former dams on pig farm. Collection of waste from pit farm and discharge to the gully? Series of dams (one large dam, several smaller dams). Some dams appear to be filled in, hummocky surface, possible demolition waste dumped. Dams likely to contain sludge/sediments from former site activities. Dam system appears to be similar to that at the Farm 10 (duck farm). Fibro fragments observed at top of large dam.	 *Photo 11*
E3	Possible burial area west of Farm 11. Potential for former pig sheds to be buried. Hummocky surface, former shed post with concrete footing and timber slats observed at surface. Abundant metal sheets, pipe, gates, mesh, car tyre, fibro fragments, timber posts and concrete footing, hummocky fill, metal pig troughs (western part of E3)	 *Photo 12* *Photo 12A*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
E3 continued	Fibro sheet fragments (asbestos?) at surface adjacent to timber fence post (immediately south of E3) Building waste (roof sheets, timber, metal pipe/gate, wire, foam insulation, bricks, concrete, terracotta pipe within northern portion of E3	 *Photo 12C*
E4	Possible localised dump area for Farm 11. Hummocky surface, post with concrete footing at surface	 *Photo 13*
E5	Concrete footing, concrete, PVC pipe, steel wire, hummocky surface (building waste burial?)	 *Photo 12B*
F1	**Farm 14** Burial trench at rear. Mass bird burial?	 *Photo 14*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
G	**Farm 16** Dumped materials, building waste, metal gate, wire, concrete, metal, brick	 *Photo 16*
H1 **H2**	**Farm 17** Possible burial area, hummocky surface, grass covered mounds, roof sheets, wire, metal pipe etc. Building rubble, fibro fragments, metal, bricks, timber, hummocky surface	 *Photo 17*
I	**East of Farm 17** Dump area, fill stockpile, with concrete, bricks, terracotta pipe, timber posts, plastic drum, brick footing, and fibro fragments at surface. At least 2.5 m high.	 *Photo 18*
J	**Farm 8** Possible burial west of sheds, hummocky surface.	 *Photo 19*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
K	**Northern dump area** Rubber belting buried (formerly used above chicken grates).	 *Photo 20*
L1	**Farm 6** Possible burial area, hummocky surface.	 *Photo 21*
L2	Possible burial area, fill mound, demolition waste buried?	 *Photo 22*
L3	Possible burial area/trench, possible burial in auger hole.	 *Photo 23*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
M1	**North of Farm 18** Possible burial area, evidence of a series of auger holes? (depressions) may have been utilised for deceased bird burial. Also evidence of burial trench.	 *Photo 25*
	Fill mound, clay filling, litter, plastic bags and test tubes observed in auger hole (laboratory waste?)	 *Photo 25**
	Hummock surface, possible burial (near M1)	 *Photo 26*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
M2	**North of Farm 18** Possible burial area – auger holes? Auger size depressions observed.	 *Photo 27*
N1	**Southern Dump Area A** Bird burial in auger holes, numerous holes evident within wooded area, additional burial trenches also evident. Southern Dump Area A more extensive than initially thought.	 *Photo 28*
N2	Dumped and partially buried vehicle and building waste, steel, wire, timber, vehicle parts etc (possible asbestos?). A number of trenches were observed within the area, which contains regrowth	 *Photo 28A*
O	**Farm 1** former sheds (previously demolished) likely to be buried on the Farm 1 site, possibly containing asbestos materials.	 *Photo 29*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
P	**Southern Dump Area B** History of burial of formaldehyde	
Q	**Workshop** Former incinerator at rear of workshop? (no longer present), used for incineration of deceased chickens? Fibro fragments present at surface, together with metal, concrete etc. Fibro fragments, mechanical parts etc observed at surface.	 *Photo 30* *Photo 31*
R	**Southern Dump Area** Building rubble buried within wooded area (demolition waste, metal rooting, steel, wire).	 *Photo 32*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
S	**South of Workshop** Possible burial area, hummocky surface.	 *Photo* 33
T	**Farm 10** Fill mounds adjacent to sheds, likely to contain demolition waste including asbestos materials.	 *Photo 34*
	Demolition waste may also be buried beneath concrete slab of northern most shed. Fibro fragments observed at the surface of fill, in addition to asbestos present at the former shed pits.	 *Photo 35*
	Farm 19	
U1	Hummocky surface, possible burial.	
U2	Possible burial of demolition waste, deep litter/manure?	

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
U3	Possible burial area, depression.	*Photo 36*
V	**Farm 19** Former sheds possibly buried in this area, roof sheet evident at surface, hummocky surface.	*Photo 37*
W	**Turkey lab** Aboveground diesel tank at front of turkey lab. Some hydrocarbon staining evident at base. Direct fuel line from tank to the turkey hatchery building (feeding heater/burner). Surface hydrocarbon spill evident	*Photo 38* *Photo 39*

Table 1 – Areas of Interest (Continued)

Area	Description	Photo
X	**NE of Farm 19** Dump site – trench and over land, metal parts, roof sheets cages etc, possible demolition waste.	 *Photo 40*
Y	**Farm 18** Ash materials – imported? used on many access roads across the site (ash does not appear to be from on-site incinerators).	 *Photo 41*
Z	**Northern Dump Area** Southern end of Northern Dump Area contains fibro fragments at the surface and in the vicinity of burial trenches.	 *Photo 42*

In addition to the above, recent test holes were drilled within a number of transpiration areas across the site. Many transpiration areas were observed to contain concentrated ash materials. The ash may contain elevated contaminants such as heavy metals and hydrocarbons, and therefore poses a potentail environmental liability at the site.

Based on the above information, further investigation will be required to assess environmental liabilities for the site.

Appendix C Registered Groundwater Monitoring Wells

NSW Office of Water
Work Summary

GW078047

Licence: 20BL166665 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 54.30 m
Drilled Depth: 54.30 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	PT LOT 13 DP 755260
Licensed:	NORTHUMBERLAND	STOCKRINGTON	PART LOT 13//755260

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6368800.0
Easting: 370784.0
Latitude: 32°48'40.3"S
Longitude: 151°37'11.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	54.30	96			Unknown
1		Annulus	Waterworn/Rounded	24.90	49.20				Ungraded
1	1	Opening	Screen	25.20	49.20			1	
1	1	Opening	Slots - Horizontal	25.20	49.20	55		1	PVC, SL: 24.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
22.80	54.30	31.50	Unknown	22.80			54.30		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	6.50	6.50	SILTSTONE	Siltstone	
6.50	12.00	5.50	SANDSTONE	Sandstone	
12.00	14.60	2.60	SILTSTONE/MUDSTONE	Siltstone	
14.60	15.40	0.80	COAL	Invalid Code	
15.40	24.90	9.50	SILTSTONE	Siltstone	
24.90	27.70	2.80	COAL	Invalid Code	
27.70	32.30	4.60	SILTSTONE/SANDSTONE	Siltstone	
32.30	33.40	1.10	COAL	Invalid Code	
33.40	39.30	5.90	SANDSTONE	Sandstone	
39.30	39.90	0.60	COAL	Invalid Code	
39.90	41.10	1.20	SILTSTONE/SANDSTONE	Siltstone	
41.10	43.50	2.40	COAL	Invalid Code	
43.50	45.10	1.60	CLAYSTONE	Claystone	
45.10	49.40	4.30	COAL	Invalid Code	
49.40	54.30	4.90	SILTSTONE	Siltstone	

Remarks

***** End of GW078047 *****

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NSW Office of Water
Work Summary

GW078120

Licence: 20BL166666 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 24.00 m
Drilled Depth: 24.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.029	LOT 115 DP 240782
Licensed:	NORTHUMBERLAND	HEXHAM	Whole Lot 115//240782

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6368590.0
Easting: 371176.0
Latitude: 32°48'47.3"S
Longitude: 151°37'26.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	24.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	2.00	24.00				Ungraded
1	1	Opening	Screen	6.00	18.00			1	
1	1	Opening	Slots - Horizontal	6.00	18.00	55		1	PVC, SL: 12.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
6.10	24.00	17.90	Unknown	6.10			24.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	14.00	14.00	SILTSTONE/MUDSTONE	Siltstone	
14.00	16.00	2.00	SANDSTONE	Sandstone	

16.00	24.00	8.00	MUDSTONE/SHALE	Mudstone	

Remarks

***** End of GW078120 *****

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NSW Office of Water
Work Summary

GW078121

Licence: 20BL166667 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date: **Final Depth:** 43.00 m
Completion Date: 14/11/1997 **Drilled Depth:** 43.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A **Standing Water Level (m):**
GWMA: 017 - HUNTER **Salinity Description:**
GW Zone: - **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	LOT 10 DP 11875
Licensed:	NORTHUMBERLAND	STOCKRINGTON	Whole Lot 10//11875

Region: 20 - Hunter **CMA Map:**
River Basin: - Unknown **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6367262.0 **Latitude:** 32°49'29.3"S
Elevation Source: Unknown **Easting:** 368619.0 **Longitude:** 151°35'47.1"E

GS Map: - **MGA Zone:** 0 **Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	43.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	2.00	43.00				Ungraded
1	1	Opening	Screen	26.70	42.50			1	
1	1	Opening	Slots	26.70	42.50	55		1	PVC, SL: 15.8mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
22.30	43.00	20.70	Unknown	22.30			43.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	14.00	14.00	SILTSTONE/SHALE	Siltstone	
14.00	16.00	2.00	SANDSTONE	Sandstone	

16.00	20.00	4.00	SILTSTONE/SHALE	Siltstone	
20.00	22.00	2.00	SANDSTONE	Sandstone	
22.00	25.40	3.40	SILTSTONE/SHALE	Siltstone	
25.40	25.90	0.50	COAL	Invalid Code	
25.90	32.10	6.20	SANDSTONE	Sandstone	
32.10	32.60	0.50	COAL	Invalid Code	
32.60	33.90	1.30	SANDSTONE	Sandstone	
33.90	35.60	1.70	COAL	Invalid Code	
35.60	36.20	0.60	SANDSTONE	Sandstone	
36.20	37.00	0.80	COAL	Invalid Code	
37.00	38.20	1.20	SANDSTONE/SILTSTONE	Sandstone	
38.20	38.60	0.40	COAL	Invalid Code	
38.60	43.00	4.40	SILTSTONE	Siltstone	

Remarks

***** End of GW078121 *****

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NSW Office of Water
Work Summary

GW078122

Licence: 20BL166668 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 35.40 m
Drilled Depth: 35.40 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	LOT 10 DP 11875
Licensed:	NORTHUMBERLAND	STOCKRINGTON	Whole Lot 10//11875

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6367663.0
Easting: 368666.0
Latitude: 32°49'16.3"S
Longitude: 151°35'49.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	35.40	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	19.20	35.40				Ungraded
1	1	Opening	Screen	19.50	35.00			1	
1	1	Opening	Slots - Horizontal	19.50	35.00	55		1	PVC, SL: 15.5mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
23.10	51.30	28.20	Unknown	23.10			35.40		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	12.00	12.00	SANDSTONE/SILTSTONE	Sandstone	
12.00	12.40	0.40	COAL	Invalid Code	

12.40	16.00	3.60	SILTSTONE	Siltstone	
16.00	19.50	3.50	SANDSTONE	Sandstone	
19.50	20.90	1.40	COAL	Invalid Code	
20.90	22.00	1.10	SANDSTONE	Sandstone	
22.00	23.60	1.60	COAL	Invalid Code	
23.60	24.40	0.80	SANDSTONE	Sandstone	
24.40	26.60	2.20	COAL	Invalid Code	
26.60	28.00	1.40	SILTSTONE/CLAYSTONE	Siltstone	
28.00	31.70	3.70	COAL	Invalid Code	
31.70	35.40	3.70	SANDSTONE	Sandstone	

Remarks

***** End of GW078122 *****

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NSW Office of Water
Work Summary

GW078123

Licence: 20BL166669 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s):

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 33.00 m
Drilled Depth: 33.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	LOT 92 DP 755260
Licensed:	NORTHUMBERLAND	STOCKRINGTON	Whole Lot 92//755260

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6368165.0
Easting: 369309.0
Latitude: 32°49'00.3"S
Longitude: 151°36'14.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	33.00	96			Other
1		Annulus	Waterworn/Rounded	12.50	32.20				Ungraded
1	1	Opening	Screen	20.20	32.20			1	
1	1	Opening	Slots - Horizontal	20.20	32.20	55		1	PVC, SL: 12.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
24.40	33.00	8.60	Unknown	24.40			33.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	13.20	13.20	SANDSTONE/SILTSTONE	Sandstone	
13.20	15.30	2.10	COAL	Invalid Code	

15.30	17.00	1.70	SILTSTONE	Siltstone	
17.00	17.90	0.90	COAL/SANDSTONE	Invalid Code	
17.90	19.00	1.10	SILTSTONE	Siltstone	
19.00	19.70	0.70	COAL/SANDSTONE	Invalid Code	
19.70	20.80	1.10	SANDSTONE	Sandstone	
20.80	23.20	2.40	COAL	Invalid Code	
23.20	25.50	2.30	SANDSTONE/CLAYSTONE	Sandstone	
25.50	29.70	4.20	COAL	Invalid Code	
29.70	33.00	3.30	SANDSTONE/SILTSTONE	Sandstone	

Remarks

***** End of GW078123 *****

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NSW Office of Water
Work Summary

GW078124

Licence: 20BL166670 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 40.00 m
Drilled Depth: 40.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	PT LOT 13 DP755260
Licensed:	NORTHUMBERLAND	STOCKRINGTON	PART LOT 13//755260

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6368018.0
Easting: 369883.0
Latitude: 32°49'05.3"S
Longitude: 151°36'36.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	40.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	11.10	40.00				Ungraded
1	1	Opening	Screen	12.50	36.50			1	
1	1	Opening	Slots - Horizontal	12.50	36.50	55		1	PVC, SL: 30.0mm, A: 2.40mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
18.60	40.00	21.40	Unknown	18.60			40.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	8.10	8.10	sandstone	Sandstone	

8.10	8.60	0.50	coal	Invalid Code	
8.60	10.00	1.40	siltstone	Siltstone	
10.00	15.50	5.50	sandstone	Sandstone	
15.50	17.20	1.70	coal	Invalid Code	
17.20	18.30	1.10	sandstone	Sandstone	
18.30	19.20	0.90	coal	Invalid Code	
19.20	20.00	0.80	mudstone	Mudstone	
20.00	24.50	4.50	siltstone	Siltstone	
24.50	27.70	3.20	coal	Invalid Code	
27.70	29.90	2.20	sandstone/claystone	Sandstone	
29.90	33.30	3.40	coal	Invalid Code	
33.30	37.00	3.70	mudstone	Mudstone	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

***** End of GW078124 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water
Work Summary

GW078125

Licence: 20BL166671 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 30.00 m
Drilled Depth: 30.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: N/A
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	PT LOT 13 DP755260
Licensed:	NORTHUMBERLAND	STOCKRINGTON	PART LOT 13//755260

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6368464.0
Easting: 370970.0
Latitude: 32°48'51.3"S
Longitude: 151°37'18.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	30.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	5.00	30.00				Ungraded
1	1	Opening	Screen	11.80	29.80			1	
1	1	Opening	Slots - Horizontal	11.80	29.80	55		1	PVC, SL: 18.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
10.20	30.00	19.80	Unknown	10.20			30.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	19.00	19.00	siltstone/sandstone	Siltstone	

19.00	24.00	5.00	sandstone	Sandstone	
24.00	26.50	2.50	siltstone/sandstone	Siltstone	
26.50	26.90	0.40	coal	Invalid Code	
26.90	30.00	3.10	siltstone/sandstone	Siltstone	

Remarks

***** End of GW078125 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water
Work Summary

GW078126

Licence: 20BL166672 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date: **Final Depth:** 30.00 m
Completion Date: 14/11/1997 **Drilled Depth:** 30.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: BERESFIELD BORAL-BERESFIELD **Standing Water Level (m):**
GWMA: 017 - HUNTER **Salinity Description:**
GW Zone: - **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.029	LOT 117 DP 568625
Licensed:	NORTHUMBERLAND	HEXHAM	Whole Lot 30//870411

Region: 20 - Hunter **CMA Map:**
River Basin: - Unknown **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6367736.0 **Latitude:** 32°49'15.3"S
Elevation Source: Unknown **Easting:** 371890.0 **Longitude:** 151°37'53.1"E

GS Map: - **MGA Zone:** 0 **Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	30.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	2.00	30.00				Ungraded
1	1	Opening	Screen	17.50	29.50			1	
1	1	Opening	Slots - Horizontal	17.50	29.50	55		1	PVC, SL: 12.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
9.00	30.00	21.00	Unknown	9.00			30.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	7.00	7.00	sandstone	Sandstone	
7.00	17.10	10.10	siltstone/mudstone	Siltstone	
17.10	17.80	0.70	coal	Invalid Code	

17.80	19.50	1.70	siltstone/claystone	Siltstone	
19.50	19.90	0.40	coal	Invalid Code	
19.90	30.00	10.10	siltstone/mudstone	Siltstone	

Remarks

***** End of GW078126 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water
Work Summary

GW078127

Licence: 20BL166673 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 30.00 m
Drilled Depth: 30.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: NOT KNOWN
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.057	LOT 82 DP 627798
Licensed:	NORTHUMBERLAND	STOCKRINGTON	Whole Lot 82//627799

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6366406.0
Easting: 369073.0
Latitude: 32°49'57.3"S
Longitude: 151°36'04.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	30.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	1.00	30.00				Ungraded
1	1	Opening	Screen	14.30	26.30			1	
1	1	Opening	Slots - Horizontal	14.30	26.30	55		1	PVC, SL: 12.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
16.60	30.00	13.40	Unknown	16.60			30.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	13.00	13.00	siltstone/mudstone	Siltstone	
13.00	17.00	4.00	mudstone	Mudstone	

17.00	30.00	13.00	siltstone/mudstone	Siltstone	

Remarks

***** End of GW078127 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water
Work Summary

GW078128

Licence: 20BL166674 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 14/11/1997
Final Depth: 30.00 m
Drilled Depth: 30.00 m

Contractor Name: MCDERMOTT DRILLING PTY LTD
Driller:
Assistant Driller:

Property: BERESFIELD BORAL BERESFIELD
GWMA: 017 - HUNTER
GW Zone: -
Standing Water Level (m):
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	NORTH	NORTH.029	LOT 117 DP 568625
Licensed:	NORTHUMBERLAND	HEXHAM	Whole Lot 30//870411

Region: 20 - Hunter
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6366923.0
Easting: 370912.0
Latitude: 32°49'41.3"S
Longitude: 151°37'15.1"E

GS Map: -
MGA Zone: 0
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	30.00	96			Open Hole - Water
1		Annulus	Waterworn/Rounded	1.70	8.00				Ungraded
1	1	Opening	Screen	18.00	30.00			1	
1	1	Opening	Slots - Horizontal	18.00	30.00	55		1	PVC, SL: 12.0mm, A: 5.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
7.80	30.00	22.20	Unknown	7.80			30.00		

Geologists Log
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	8.00	8.00	siltstone	Siltstone	
8.00	9.00	1.00	shale	Shale	
9.00	12.00	3.00	siltstone	Siltstone	

12.00	12.80	0.80	shale	Shale	
12.80	13.40	0.60	coal	Invalid Code	
13.40	30.00	16.60	siltstone/mudstone	Siltstone	

Remarks

***** End of GW078128 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Appendix D Aerial Photographs

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 1954

FIGURE: 1954

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: NSW LPI

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 1976

FIGURE: 1976

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: NSW LPI

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 1983

FIGURE: 1983

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: NSW LPI

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 1993

FIGURE: 1993

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: NSW LPI

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 2007

FIGURE: 2007

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: Google

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 2010

FIGURE: 2010

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: Nearmap

Legend:

Approximate Site Boundary

JBS&G

Job No: 54892

Client: Broaden Management

Version: Aerials	Date: 09-Jul-2018
Drawn By: FH	Checked By: SB

Scale 1:13,500

0 160 320

metres

Coor. Sys. GDA 1994 MGA Zone 56

John Renshaw Drive
Black Hill, NSW

HISTORICAL AERIAL PHOTOGRAPH- 2018

FIGURE: 2018

File Name: \\008PMPMR001V001.jbsg.aust\Company Folder\JBS Environmental\Projects\Broaden Management\54892 Black Hill PSI SAQP DSI RAP\GIS\Maps\Aerials\54892.mxd
Reference: NSW LPI

Appendix E Land Titles

ABN: 36 092 724 251
Ph: 02 9099 7400

Level 14, 135 King Street, Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Report

NSW LRS
(Formerly LPI)

Sydney

Address: John Renshaw Drive, Black Hill

Description: - Lot 1131 D.P. 1057179

As regards the parts tinted green on the attached copy of D.P. 1057149

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
22.01.1872 (1872 to 1934)	The Scottish Australian Mining Company Limited	Book 138 No. 103
29.06.1934 (1934 to 1954)	Patrick James Farrell (Timber Merchant)	Book 1751 No. 807
02.06.1954 (1954 to 1967)	P.J. Farrell Pty. Limited	Book 2302 No. 35
04.08.1967 (1967 to 2003)	Steggles Pty. Limited Now Steggles Poultry Pty Limited	Book 2881 No. 259 (Book 2901 No. 303 Confirmation Deed) Now 131/234203

As regards the parts tinted pink on the attached copy of D.P. 1057149

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
22.01.1872 (1872 to 1904)	The Scottish Australian Mining Company Limited	Book 138 No. 103
16.04.1904 (1904 to 1910)	Council Public Road (7775-1603)	Government Gazette
10.08.1910	Road Closed	
19.05.1969 (1969 to 2003)	Steggles Pty. Limited Now Steggles Poultry Pty Limited (Pursuant to Road Purchase Application LB 68-1692)	Vol 11048 Fol 86 Now 1/653243

Continued as regards the whole of the subject land

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
25.07.2003 (2003 to Date)	# The Trustees of the Roman Catholic Church for the Diocese of Maitland-Newcastle	131/234203 & 1/653243 Now 1131/1057179

# Denotes Current Registered Proprietor

Easements: -

- 18.03.1966 (Government Gazette 18.03.1966 Folios 1179 to 1182) – Easement for Transmission Line 45.742 metre (s) wide
- 06.07.2016 (AK 511053) – Easement for Pipeline variable width

Leases: - NIL

Yours Sincerely
James McDonnell
4 June 2018

Email: james.mcdonnell@infotrack.com.au

InfoTrack
Your Searching Partner

PLAN FORM 2 (APPROVED FORM 3)

Plan Drawing only to appear in this space

SIGNATURES AND SEALS ONLY.

The Common Seal of the Trustees of the Roman Catholic Church for the Diocese of Maitland-Newcastle was hereunto affixed in the presence of [illegible] Reverend [illegible] of the Diocese of Maitland - Newcastle under and in pursuance of a Delegation made to him under Section 98 of the Roman Catholic Church Trust Property Act 1936 as amended

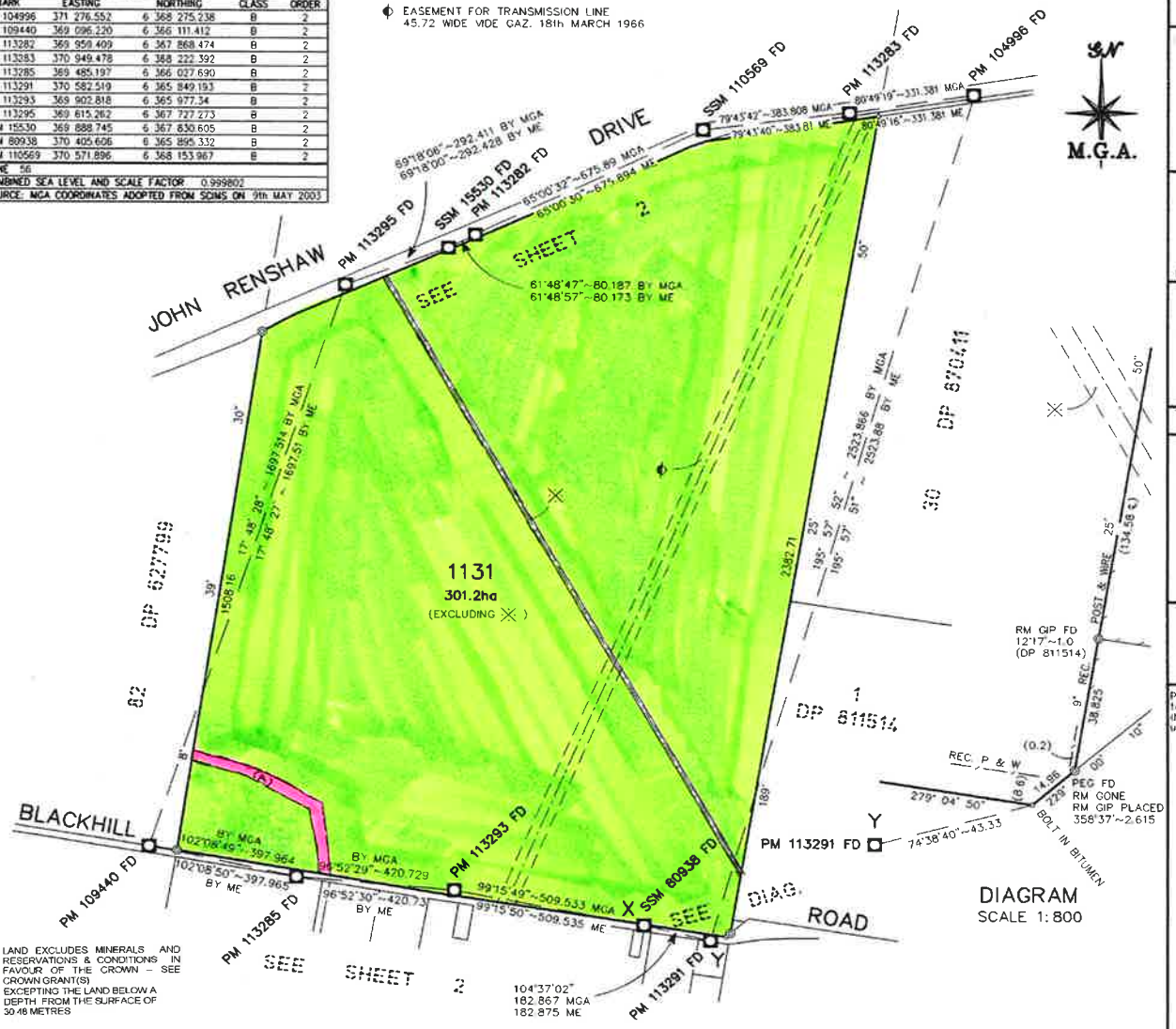
Common Seal

James Saunders VG

SURVEYORS (PRACTICE) REGULATION 2001: CLAUSE 32(2) MGA COORDINATES				
MARK	EASTING	NORTHING	CLASS	ORDER
PM 104996	371 276.552	6 368 275.238	B	2
PM 109440	369 096.220	6 366 111.412	B	2
PM 113282	369 958.409	6 367 868.474	B	2
PM 113283	370 949.478	6 368 222.392	B	2
PM 113285	369 485.197	6 366 027.690	B	2
PM 113291	370 582.519	6 365 849.193	B	2
PM 113293	369 902.818	6 365 977.34	B	2
PM 113295	369 615.262	6 367 727.273	B	2
SSM 15530	369 888.745	6 367 830.605	B	2
SSM 80938	370 405.606	6 365 895.332	B	2
SSM 110569	370 571.896	6 368 153.967	B	2
ZONE 56				
COMBINED SEA LEVEL AND SCALE FACTOR 0.999802				
SOURCE: MGA COORDINATES ADOPTED FROM SCIMS ON 9th MAY 2003				

RESUMED FOR WATER PIPELINE 10.06 WIDE VIDE GAZ. 21st MARCH 1884

EASEMENT FOR TRANSMISSION LINE 45.72 WIDE VIDE GAZ. 18th MARCH 1966



(A) LAND EXCLUDES MINERALS AND RESERVATIONS & CONDITIONS IN FAVOUR OF THE CROWN – SEE CROWN GRANT(S) EXCEPTING THE LAND BELOW A DEPTH FROM THE SURFACE OF 30.48 METRES

Crown Lands Office Approval

PLAN APPROVED _____ Authorised Officer

Land District _____

Plan No. _____

Field Book _____ pages

Subdivison Certificate

I hereby certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to the proposed _____ set out herein

* (Insert 'subdivision' or 'new road')

_____ * Authorised Person/General Manager/Accredited Certifier

Consent Authority _____

Date of endorsement _____

Accreditation no _____

Subdivision Certificate no _____

File no. _____

Note.
When the plan is to be lodged electronically or Land and Property Information, it should include a signature in an electronic or digital format approved by the Registrar-General

* Delete whichever is inapplicable

SURVEYOR'S REFERENCE: 6193 ST/S CHECKLIST

MPR 2005

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP1057179

Registered: 20/8/2003

Title System: TORRENS

Purpose: CONSOLIDATION

Ref Map: U 5465 –7, 8

Last Plan: SEE BELOW

PLAN OF CONSOLIDATION OF LOT 131 DP 234203 AND LOT 1 DP 653243

Lengths are in metres. Reduction Ratio 1:2000

L G A: CESSNOCK

Locality: BLACKHILL

Parish: STOCKRINGTON

County: NORTHUMBERLAND

This is sheet 1 of my plan in 2 sheets. (Delete if inapplicable)

Surveyors (Practice) Regulation 2001

I, NORMAN JOHN BRUHN

of SCOTT CRISP, PO BOX 2127, GREENHILLS 2323

a surveyor registered under the Surveyors Act, 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practice) Regulation 2001 and was completed on 23-5-2003

The survey relates to _____ (here specify the land actually surveyed, or specify any land shown in the plan that is not the subject of the survey)

(Signature) _____ Date 28-5-2003

Surveyor registered under the Surveyors Act 1929

Datum Line: X–Y

Type: Urban / Rural

Plans used in preparation of survey/compilation

DP 234203	DP 568625
DP 837813	DP 214493
DP 811514	DP 746684
DP 1019282	DP 247664
DP 549291	DP 1035921

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants

* OFFICE USE ONLY

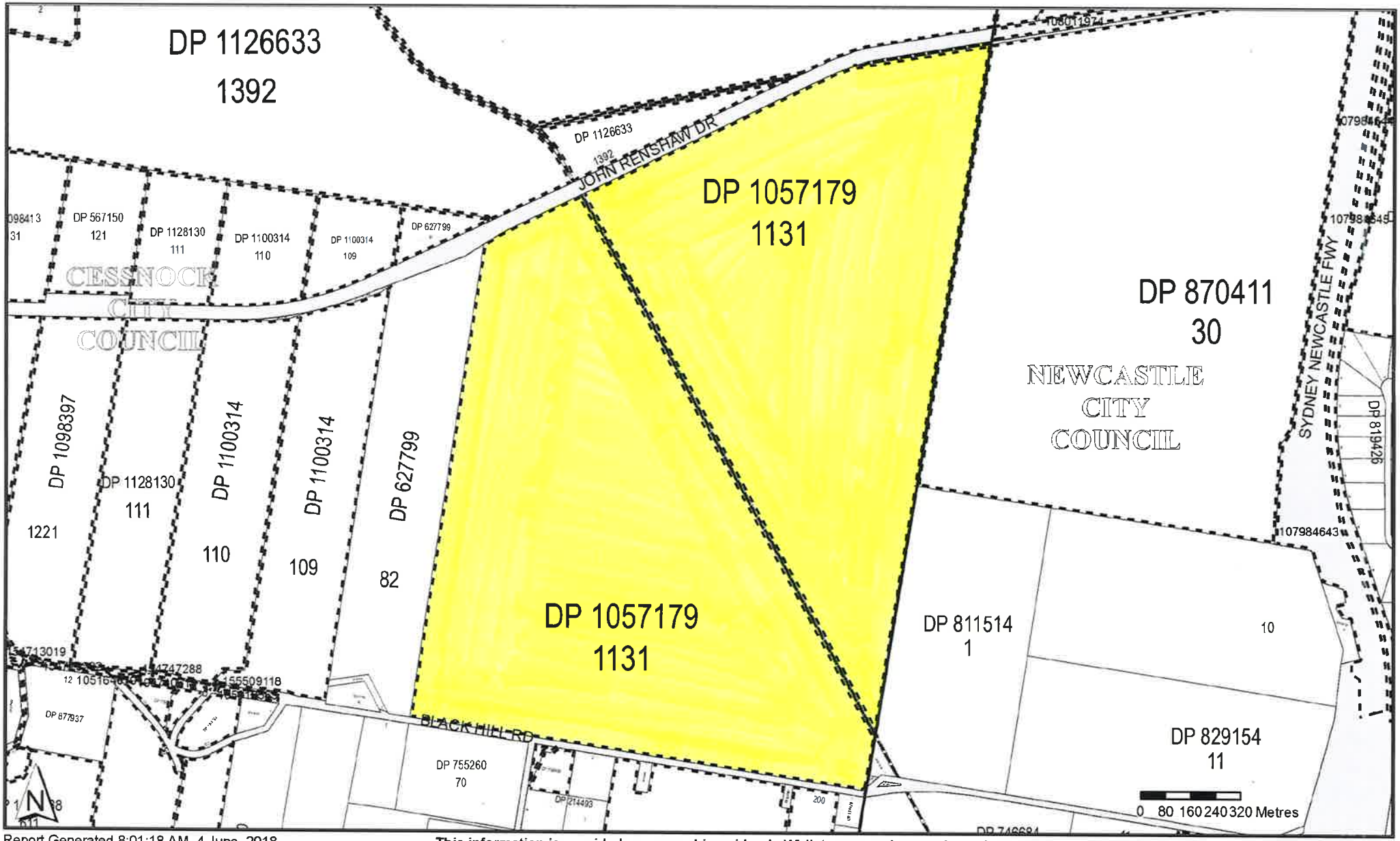
Req:R700730 /Doc:DP 1057179 P /Rev:21-Aug-2003 /Sts:SC.OK /Pgs:ALL /Prt:04-Jun-2018 08:00 /Seq:1 of 2
Ref:Black Hill /Src:M

LAND REGISTRY SERVICES

Cadastral Records Enquiry Report : Lot 1131 DP 1057179

Ref : NOUSER

Locality : BLACK HILL
Parish : STOCKRINGTON
LGA : CESSNOCK
County : NORTHUMBERLAND



Report Generated 8:01:18 AM, 4 June, 2018

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This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

InfoTrack
Your Searching Partner

PLAN FORM 2 (APPROVED FORM 3)

Plan Drawing only to appear in this space

SIGNATURES AND SEALS ONLY.

The Common Seal of the Trustees of the Roman Catholic Church for the Diocese of Maitland - Newcastle was hereunto affixed in the presence of [redacted] Reverend [redacted] Vicar General of the Diocese of Maitland - Newcastle under and in pursuance of a Delegation made to him under Section 98 of the Roman Catholic Church Trust Property Act 1936 as amended

Common Seal

VG

Crown Lands Office Approval

PLAN APPROVED ..... Authorised Officer

Land District .....

Paper No. .....

Field Book ..... pages .....

Subdivision Certificate

I hereby certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to the proposed .....

..... set out herein

* (Insert 'subdivision' or 'new road')

..... * Authorised Person/General Manager/Accredited Certifier

Consent Authority .....

Date of endorsement .....

Accreditation no .....

Subdivision Certificate no .....

File no .....

Note.
When the plan is to be lodged electronically in Land and Property Information, it should include a signature in an electronic or digital format approved by the Registrar-General

* Delete whichever is inapplicable

SURVEYOR'S REFERENCE: 6193 ST/S CHECKLIST

MPR 2005

SURVEYORS (PRACTICE) REGULATION 2001: CLAUSE 32(2)

MGA COORDINATES

MARK	EASTING	NORTHING	CLASS	ORDER
PM 104996	371 276.552	6 368 275.236	B	2
PM 109440	369 096.220	6 366 111.412	B	2
PM 113282	369 959.409	6 367 868.474	B	2
PM 113283	370 949.478	6 368 222.382	B	2
PM 113285	369 485.197	6 366 027.690	B	2
PM 113291	370 582.519	6 365 849.193	B	2
PM 113293	369 902.818	6 365 977.34	B	2
PM 113295	369 615.262	6 367 727.273	B	2
SSM 15530	369 888.745	6 367 830.605	B	2
SSM 80938	370 405.606	6 365 895.332	B	2
SSM 110569	370 571.896	6 368 153.987	B	2

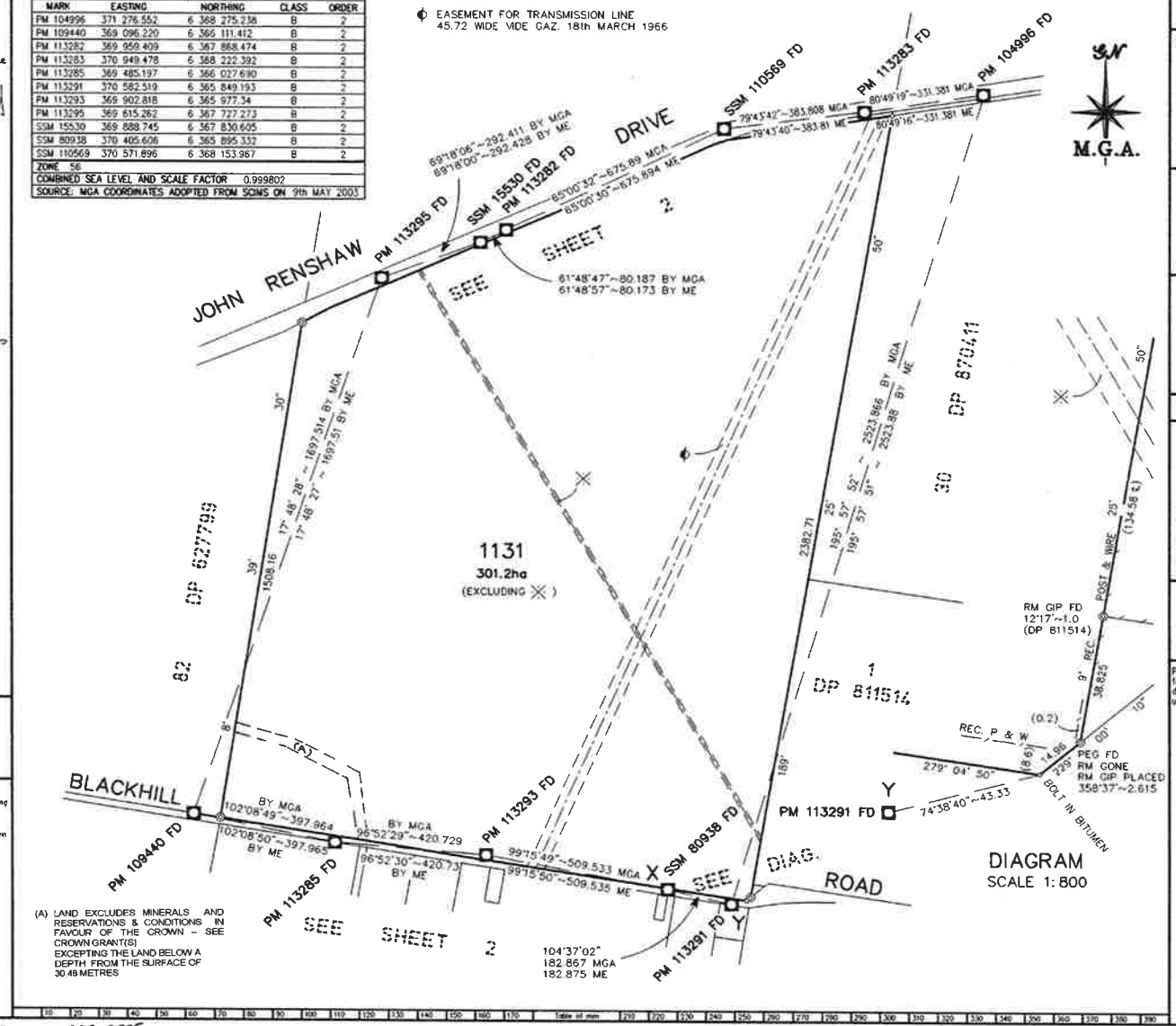
ZONE 56

COMBINED SEA LEVEL AND SCALE FACTOR 0.999802

SOURCE: MGA COORDINATES ADOPTED FROM SCIMS ON 9th MAY 2003

RESUMED FOR WATER PIPELINE 10.06 WIDE VIDE GAZ. 21st MARCH 1884

EASEMENT FOR TRANSMISSION LINE 45.72 WIDE VIDE GAZ. 18th MARCH 1966



(A) LAND EXCLUDES MINERALS AND RESERVATIONS & CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S) EXCEPTING THE LAND BELOW A DEPTH FROM THE SURFACE OF 30.48 METRES

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP1057179

Registered: 20/8/2003

Title System: TORRENS

Purpose: CONSOLIDATION

Ref Map: U 5465 -7, 8

Last Plan: SEE BELOW

PLAN OF CONSOLIDATION OF LOT 131 DP 234203 AND LOT 1 DP 653243

Lengths are in metres Reduction Ratio 1:8000

L G A: CESSNOCK

Locality: BLACKHILL

Parish: STOCKRINGTON

County: NORTHUMBERLAND

This is sheet 1 of my plan in 2 sheets.
(Delete if inapplicable)

Surveyors (Practice) Regulation 2001

I, NORMAN JOHN BRUHN

of SCOTT CRISP, PO BOX 2127, GREENHILLS 2323

a surveyor registered under the Surveyors Act, 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practice) Regulation 2001 and was completed on 23-5-2003

The survey relates to .....
(here specify the land actually surveyed, or specify any land shown in the plan that is not the subject of the survey)

(Signature) ..... Dated 25-5-2003
Surveyor registered under the Surveyors Act 1929

Datum Line: X-Y

Type: Urban / Rural

Plans used in preparation of survey/compilation.

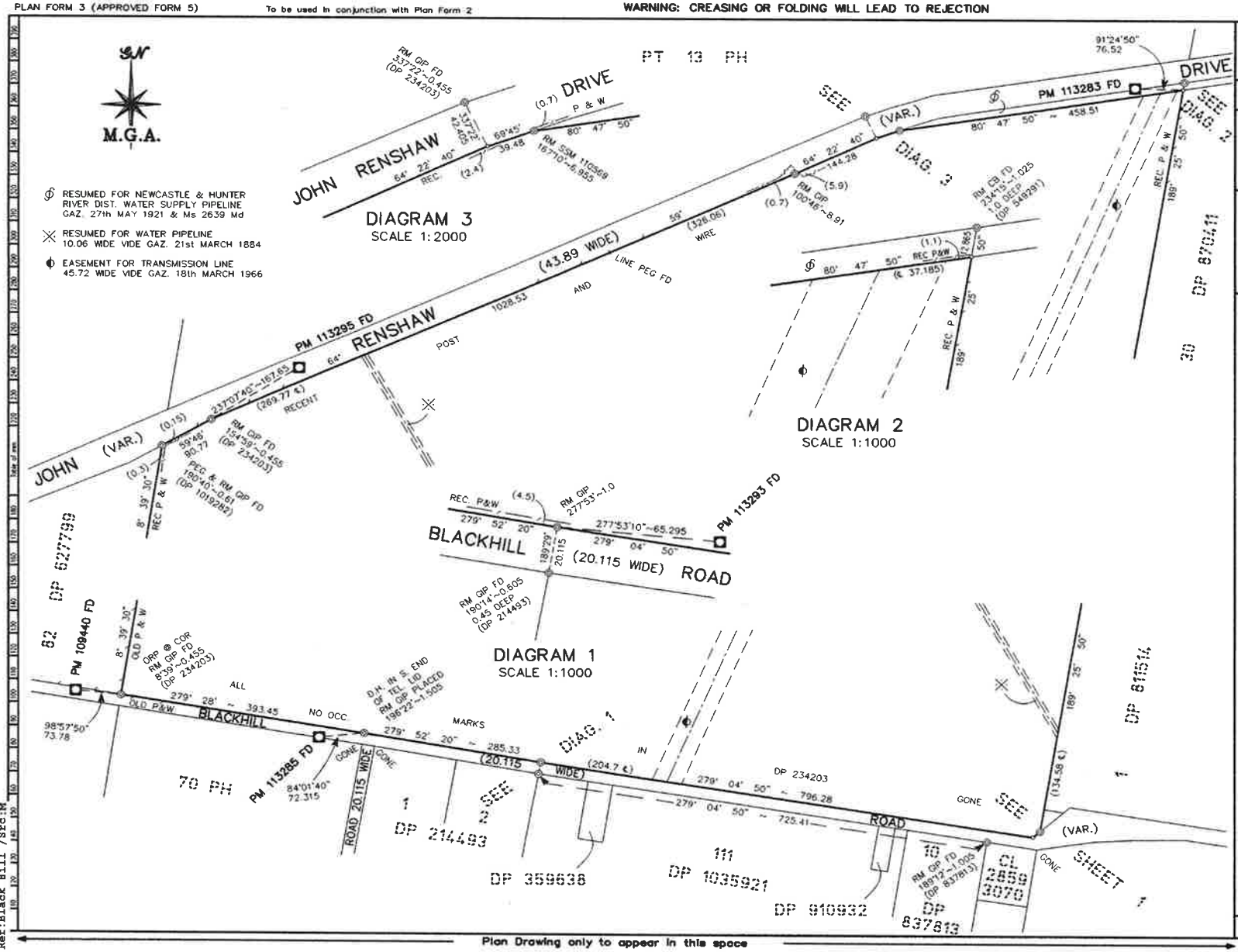
DP 234203	DP 568625
DP 837813	DP 214493
DP 811514	DP 746684
DP 1019282	DP 247564
DP 549291	DP 1035921

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

*OFFICE USE ONLY

Reg:R700730 /Doc:DP 1057179 P /Rev:21-Aug-2003 /Sts:SC.OR /Pgs:ALL /Prt:04-Jun-2018 08:00 /Seq:1 of 2
Ref:Black Hill /Src:M

PLAN FORM 3 (APPROVED FORM 5) To be used in conjunction with Plan Form 2 WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION



DP1057179

Registered: 20/8/2003

This is sheet 2 of my plan in 2 sheets dated 26th MAY 2003

Surveyor registered under Surveyors Act 1929

This is sheet of the plan of sheets covered by Subdivision Certificate No. of

Authorised Person/General Manager/Accredited Certifier

For use where space is insufficient in any panel on Plan Form 2.

Reduction Ratio 1:4000

*OFFICE USE ONLY

SURVEYOR'S REFERENCE: 6193 ST/S

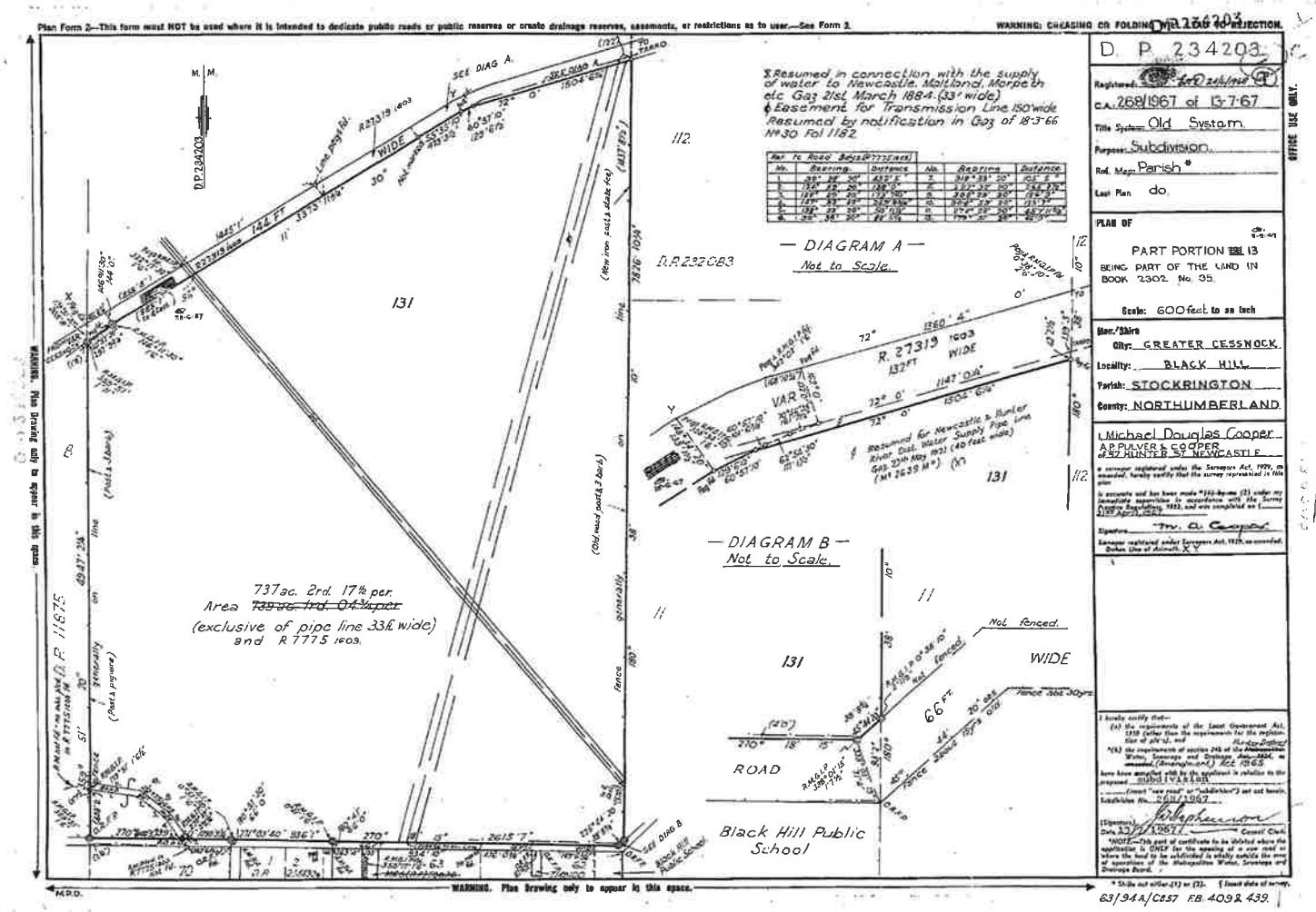
Reg:R700730 /Doc:DP 1057179 P /Rev:21-Aug-2003 /Sts:SC.OK /Pgs:ALL /Prt:04-Jun-2018 08:00 /Seq:2 of 2
Ref:Black Hill /Src:M

InfoTrack

Req:R700763 /Doc:DP 0234203 P /Rev:10-Jun-1992 /Sts:OK.OK /Pgs:ALL /Prt:04-Jun-2018 09:11 /Seq:1 of 1
Ref:Black Hill /Src:M

Plan Form 2—This form must NOT be used where it is intended to dedicate public roads or public reserves or create drainage reserves, easements, or restrictions as to user.—See Form 3. WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION.

D.P. 234203



Resumed in connection with the supply of water to Newcastle, Maitland, Morpeth etc Gaz 21st March 1884 (33' wide)
Easement for Transmission Line 150 wide Resumed by notification in Gaz of 18-3-66 N°30 Fol 1182

No.	Bearing	Distance	No.	Bearing	Distance
1	28° 30'	452.6	7	318° 33' 20"	102.8
2	130° 30'	288.0	8	222° 33' 20"	154.78
3	118° 30'	139.70	9	208° 33' 20"	154.8
4	174° 33'	230.8	10	304° 33' 20"	151.7
5	138° 33'	50 Title	11	274° 33' 20"	66.0
6	228° 33'	50 Title	12	184° 33' 20"	66.0

63/94A/C857 F.B. 4092 439.

D P 234203

Registered: 5 FEB 1968
C.A. 268/1967 of 13-7-67
Title System: Old System
Purpose: Subdivision
Ref. Map: Parish *
Last Plan: do.

PLAN OF

PART PORTION 131 & 13
BEING PART OF THE LAND IN BOOK 2302 No. 95

Scale: 600 feet to an inch

Mun./Shire: City: GREATER CESSNOCK
Locality: BLACK HILL
Parish: STOCKRINGTON
County: NORTHUMBERLAND

I, Michael Douglas Cooper
A.R. PULVER & COOPER
of 87 HUNTER ST. NEWCASTLE
a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan
is accurate and has been made *I/We-by-me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on 1
Signature: M. D. Cooper
Surveyor registered under Surveyors Act, 1929, as amended.
Date: 1/6/67
Office Use Only

I hereby certify that—
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and
*(b) the requirements of sections 246 of the Metropolitan Water, Sewerage and Drainage Act, 1924, as amended, (Amendment) Act 1965,
have been complied with in the preparation in relation to the proposed Subdivision
(insert "new road" or "subdivision") set out hereon.
Local Authority No. 268/1967
(Signature)
Date 23/11/1967
Council Clerk
*NOTE—This part of certificate to be deleted where the application is ONLY for the opening of a new road or where the land to be subdivided is wholly outside the area of operations of the Metropolitan Water, Sewerage and Drainage Board.

* Strike out either (1) or (2). † Insert date of survey.

WARNING: Plan Drawing only to appear in this space.

AMENDMENTS OR ADDITIONS NOTED ON PLAN IN REGISTRAR GENERAL'S OFFICE.

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 4th day of July, 1977.

1

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

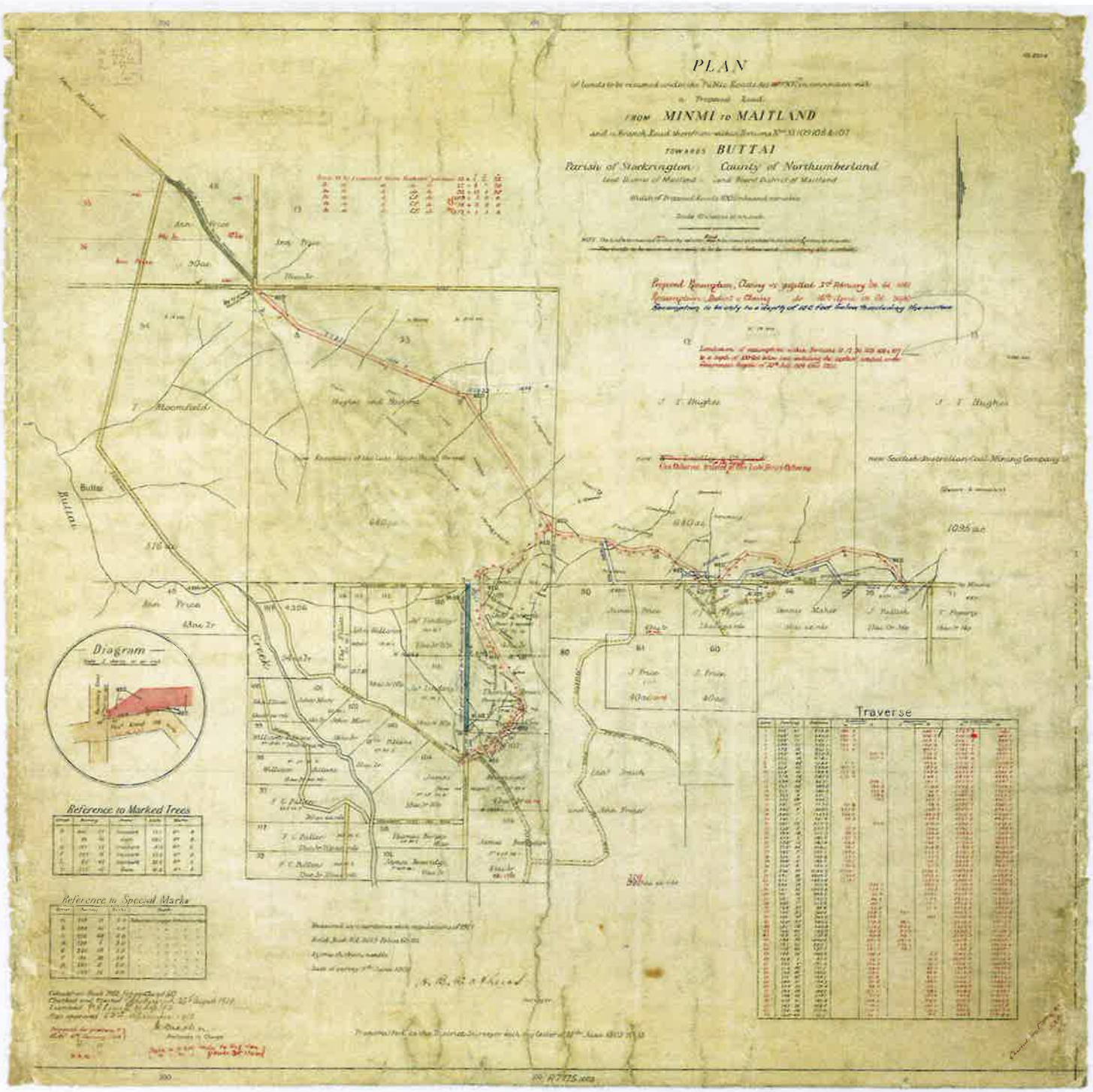
DP 234203

FEET	INCHES	METRES
1	6	0.457
1	6 1/4	0.464
1	7 1/2	0.495
1	8	0.508
1	11	0.584
2	0 1/4	0.616
2	1 1/2	0.648
2	6	0.762
3	7	1.092
4	-	1.219
13	11 1/8	4.245
18	-	5.486
32	-	9.754
33	-	10.058
36	8 3/4	11.089
39	-	11.887
42	2 1/2	12.865
50	11 1/2	15.532
66	-	20.117
66	9	20.345
71	4	21.742
87	4 1/2	26.632
88	11 1/4	27.108
93	2	28.397
101	6 3/4	30.956
104	5	31.826
105	5	32.131
111	1 1/2	33.871
122	-	37.186
129	6 1/2	39.484
132	-	40.256
138	-	42.062
139	1 1/2	42.405
139	3	42.443
144	-	43.891
150	-	45.720
155	7	47.422
161	7 1/2	49.263
168	10 3/4	51.479
173	7 3/4	52.927
182	6 3/4	55.649
186	9	56.921
205	0	62.687
259	3 3/4	79.038
263	4	80.264
265	2 1/2	80.836
297	9 3/4	90.773
382	6 1/2	116.599
432	5	131.801
457	11 3/4	139.592
473	3 1/2	144.259
476	0 3/4	145.104
496	2	151.841
570	-	173.736
749	6 3/4	228.467
848	5	258.597
858	8	261.722
885	1	269.773
934	10	284.937
936	1	285.319
1147	0 1/4	349.612
1290	9 3/4	393.440
1360	4	414.630
1437	8 1/2	438.214
1445	1	440.461
1504	6 1/4	458.578
1944	-	592.531
2615	7	797.230
3373	11 3/4	1028.389
4947	2 1/4	1507.903
7826	9 5/8	2385.609
7826	10 3/4	2385.638

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

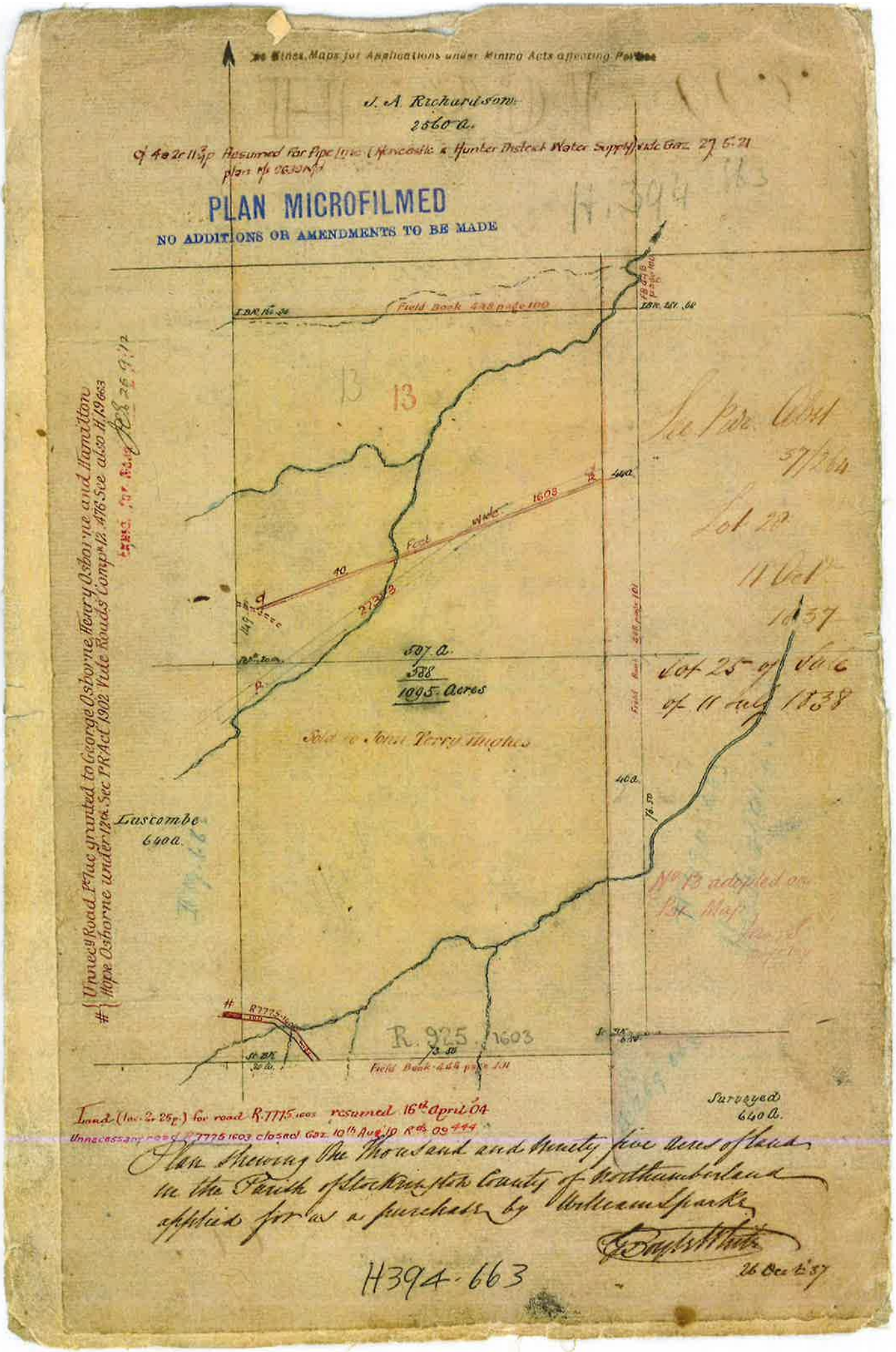
DP 234203 CONTINUED

AC	RD	P	HA
737	2	17 1/2	298.5



Seq:2701425 /Doc:DP 0775-1603 P /Rev:30-Nov-2012 /Sts:OK,OK /Prs:04-Jun-2018 09:43 /Seq:1 of 1
For:Black Hill /Src:M

Req:R668957 /Doc:CP 00394-0663 P /Rev:23-Nov-2012 /Sts:OK.OK /Prt:28-May-2018 15:41 /Seq:1
Ref:Black Hill /Src:M



LAND REGISTRY SERVICES

Historical Title

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/5/2018 3:38PM

FOLIO: 131/234203

First Title(s): OLD SYSTEM
Prior Title(s): BK 2901 NO 303

Recorded	Number	Type of Instrument	C.T. Issue
27/11/2000	CA83589	CONVERSION ACTION	FOLIO CREATED EDITION 1
30/4/2002	8465492	TRANSFER OF MORTGAGE	EDITION 2
25/7/2003	9823630	DISCHARGE OF MORTGAGE	
25/7/2003	9823631	TRANSFER	
20/8/2003	DP1057179	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Black Hill PRINTED ON 28/5/2018

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Received: 28/05/2018 15:38:27

Req:R700718 /Doc:DL 9823631 /Rev:30-Jul-2003 /Sts:NO.OK /Pgs:ALL /Prt:04-Jun-2018 07:56 /Seq:1 of 1
Ref:Black Hill /Src:M

Form: 01T
Release: 2.1
www.lpi.nsw.gov.au

TRANSFE

New South Wales
Real Property Act 19

9823631V

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
09-07-2003 0001490193-001
SECTION 18(2)
DUTY $ **********2.00

(A) **TORRENS TITLE** Folio Identifier 131/234203 and Folio Identifier 1/653243

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
	H. M. ALLEN & CO. ABN: 99 000 121 170 LAW STATIONERS Reference: SH 47 V TRU 147/64	T TW (Sheriff)

(C) **TRANSFEROR** STEGGLES POULTRY PTY LIMITED ACN 000 011 156

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 6,050,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** THE TRUSTEES OF THE ROMAN CATHOLIC CHURCH FOR THE DIOCESE OF MAITLAND-NEWCASTLE

(I) **TENANCY:**

(J) **DATE** 8 July 2003

Certified correct for the purposes of the Real Property Act 1900 by the corporation named below the common seal of which was affixed pursuant to the authority specified and in the presence of the authorised person(s) whose signature(s) appear(s) below.

Corporation: Steggles Poultry Pty Limited ACN 000 011 156
Authority: section 127 of the Corporations Act 2001

Signature of authorised person: DTB
Name of authorised person: DAVID THOMAS BARTTER
Office held: EXECUTIVE DIRECTOR

Signature of authorised person: PTB Peter Barter.
Name of authorised person: PETER JOHN BARTTER
Office held: CHAIRMAN.

STEGGLES POULTRY PTY LIMITED A.C.N. 000 011 156 Common Seal

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:
Signatory's name: H E Murray
Signatory's capacity: transferee's solicitor

All handwriting must be in block capitals.

Req:R668916 /Doc:CT 11048-086 CT /Rev:16-Dec-2010 /Sts:OK.SC /Pgs:ALL /Prt:28-May-2018 15:38 /Seq:1 of 2
Ref:Black Hill /Src:M

CANCELLED

11048086

NEW SOUTH WALES
seventy five cents
STAMP DUTY
SYDNEY, N.S.W.

No. 1969/757

New South Wales

SEE AUTO FOLIO

Vol. 11048 Fol. 86

Registered 19-5-1969

Registrar General

(Page 1) Vol. 11048 Fol. 86

GRANT UPON PURCHASE OF UNNECESSARY ROAD

(UNDER THE PUBLIC ROADS ACT, 1902-1968).

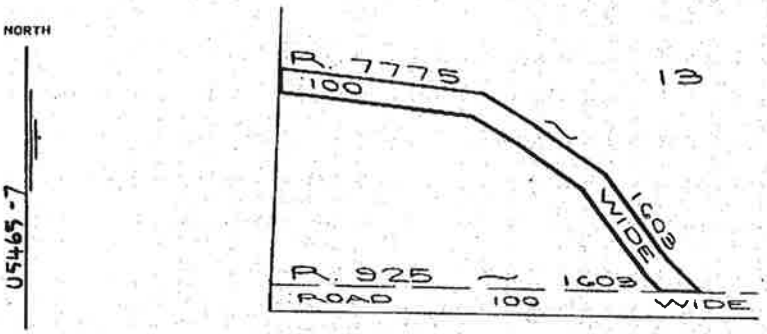
ELIZABETH the SECOND, by the Grace of God of the United Kingdom, Australia and her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith:-

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

Whereas a certain road comprising the piece or parcel of land hereinafter described was in accordance with the provisions of the Public Roads Act, 1902-1968 relating to Unnecessary Roads in Our State of New South Wales duly closed and STEGGLES PTY. LIMITED (hereinafter called the GRANTEE) being the owner of land adjoining thereto has agreed to have the said land limited to the surface thereof and to a depth of one hundred — feet below such surface granted to it upon payment of the sum of one hundred and five dollars being the value thereof agreed upon between Our Minister for Lands and the GRANTEE

Now Know Ye That in consideration of such value for and on Our behalf well and truly paid into the Treasury of Our said State before these Presents are issued and of all and singular the premises We for Us Our Heirs and Successors Do Hereby Grant unto the GRANTEE and its Assigns Subject to the Reservations Exceptions and Conditions hereinafter contained All that Piece or Parcel of Land in Our said State containing by Admeasurement one acre two roods twenty perches be the same more or less situated in the County of Northumberland Parish of Stockrington Being a closed road resumed through portion 13 as surveyed and shown in plan catalogued No. R.7775-1603 in the Department of Lands

THE LAND WITHIN DESCRIBED IS NOW LOT 1 IN DP653243



AREA: 1a. 2r. 20p.

SCALE
0 1 2 4 8 CHAINS

As per Plan hereon SAVING EXCEPTING AND RESERVING unto Us Our Heirs and Successors all that part of the said land which lies at a depth greater than one hundred feet below the surface thereof With all the Rights and Appurtenances whatsoever thereto belonging **To Hold** unto the GRANTEE and its Assigns for ever **Provided Nevertheless** And We do also hereby Reserve and Except unto Us Our Heirs and Successors all minerals which the said land contains with full power and authority for Us Our Heirs and Successors and such person or persons as shall from time to time be authorised by Us or Them to enter upon the said land and to search for mine dig and remove the said minerals **And also** all such parts and so much of the said land as may hereafter be required for public ways in over and through the same to be set out by Our Governor for the time being of Our said State or some person by him authorised in that respect with full power for Us Our Heirs and Successors and for Our Governor as aforesaid by such person or persons as shall be by Us Them or him authorised in that behalf to make and conduct all such public ways And the right of full and free ingress egress and regress into out of and upon the said land for the several purposes aforesaid or any of them **Provided Further** And it is Expressly Declared that mining operations may have been and may be carried on upon and in the land below the land hereby granted and the lands adjoining the land hereby granted and the land below the same and metals and minerals may have been and may be removed therefrom and that these presents are made upon and subject to the conditions that the GRANTEE and its Assigns shall not be entitled to make or prosecute any claim for damages or take any proceedings either by way of injunction or otherwise against Us Our Heirs or Successors or the Government of Our State of New South Wales or any lessee or lessees under any Mining Act or Acts of Our said State or his or their executors administrators or assigns for or in respect of any damage or loss occasioned by the letting down subsidence or lateral movement of the land hereby granted or otherwise howsoever by reason of the following acts and matters that is to say by reason of Us Our Heirs or Successors or the Government of Our said State or any person on Our Their or its behalf or any lessee or lessees as aforesaid or his or their executors administrators or assigns having worked or now or hereafter working any mines or having carried on or now or hereafter carrying on mining operations or having searched for worked won or removed or now or hereafter searching for working winning or removing any metals or minerals under in or from the land below the land hereby granted or on in under or from any other lands situated laterally to the land hereby granted and the land below the same and whether on or below the surface of such other lands **Provided Lastly** and We do hereby expressly reserve unto Us Our Heirs and Successors the liberty and authority by reason of the acts and matters aforesaid or in the course thereof for Us Our Heirs and Successors and the Government of Our said State and any person on Our Their or its behalf and any lessee or lessees as aforesaid and his or their executors administrators and assigns to from time to time let down without payment of any compensation whatsoever any part of the land hereby granted and/or of the surface thereof **In Testimony Whereof** We have caused this Our Grant to be Sealed with the Seal of Our said State

Witness Our Governor of Our State of New South Wales and its Dependencies in the Commonwealth of Australia, at Sydney in Our said State, this ninth day of May in the eighteenth year of Our Reign and in the year of Our Lord one Thousand nine hundred and sixty nine

A. R. Cutler
Governor

FOR ENDORSEMENTS SEE PAGE 2

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE

St 1609 V. C. N. Blight, Government Printer

Vol. 11048 Fol 86

SCHEDULE OF REGISTERED PROPRIETORS

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
CANCELLED SEE AUTO FOLIO					

(Page 2 of 2 pages)

SCHEDULE OF ENCUMBRANCES ETC.

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		

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

Req:R668916 /Doc:CT 11048-086 CT /Rev:16-Dec-2010 /Sts:OK.SC /Pgs:ALL /Prt:28-May-2018 15:38 /Seq:2 of 2
Ref:Black Hill /Src:M

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/5/2018 3:38PM

FOLIO: 1/653243

First Title(s): VOL 11048 FOL 86
Prior Title(s): VOL 11048 FOL 86

Recorded	Number	Type of Instrument	C.T. Issue
9/3/1993		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
29/4/1994		AMENDMENT: TITLE DIAGRAM	
19/6/2000	6867787	CHANGE OF NAME	
19/6/2000	6867788	MORTGAGE	EDITION 1
30/4/2002	8465492	TRANSFER OF MORTGAGE	EDITION 2
25/7/2003	9823629	DISCHARGE OF MORTGAGE	
25/7/2003	9823631	TRANSFER	
20/8/2003	DP1057179	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Black Hill PRINTED ON 28/5/2018

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Received: 28/05/2018 15:38:27

Req:R700717 /Doc:DL 6867787 /Rev:27-Jun-2000 /Sts:NO.OK /Pgs:ALL /Prt:04-Jun-2018 07:56 /Seq:1 of 2
Ref:Black Hill /Src:M

6867787P

97-10CN

Application to Record CHANGE OF NAM

Real Property Act 1900
Crown Lands Consolidation Act 1900
Western Lands Act 1901

(A) LAND
Show no more than 20 References to Title.

FOLIO IDENTIFIERS 1/833057, 2/833057, 1/653243, 21/515056, 12/603613, ~~Volume 5368 Folio 184~~, 17/A/12628, 51/547773, 67/A/12628, 43/1009594

(B) REGISTERED DEALING
If applicable.

(C) LODGED BY

L.T.O. Box	Name, Address or DX and Telephone
599D	MINTER ELLISON 44 MARTIN PLACE SYDNEY FACSIMILE No. (02) 235 2711 REFERENCE (max 15 characters): AMN 10787045 REF:

(D) REGISTERED PROPRIETOR
whose name is to be changed.

STEGGLES PTY LIMITED ACN 000 011 156

(E) NEW NAME
In full.

CN	STEGGLES POULTRY PTY LIMITED ACN 000 011 156

(F) I, the Registered Proprietor, apply to have my New Name recorded in the Register in respect of the above **Land/Registered Dealing.**

(G) STATUTORY DECLARATION BY THE APPLICANT

I, *[New Name]* Geoffrey Charles Raleigh Frost, solemnly and sincerely declare that

1. I am identical with the Registered Proprietor referred to above;
2. On ..... 19 ..... at .....
   in the State of ..... I married .....;
3. I am a director of Steggles Poultry Pty Limited ACN 000 011 156 ('Company')
4. On 3 October 1994, the Company changed its name from Steggles Pty Limited as evidenced by the attached Certificate of the Registration of a Company.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900, and I certify this application correct for the purposes of the Real Property Act 1900.

Made and subscribed at Sydney in the State of N.S.W.
on 20th August 19 99, in the presence of

L O'Grady
Signature of Witness

Kathleen Patricia O'Grady
Name of Witness (BLOCK LETTERS)

Level 38, MLC Centre, Martin Place, Sydney Solicitor
Address and Qualification of Witness

Signature of Applicant

CHECKED BY (office use only) Reg 80

Req:R700717 /Doc:DL 6867787 /Rev:27-Jun-2000 /Sts:NO.OK /Pgs:ALL /Prt:04-Jun-2018 07:56 /Seq:2 of 2
Ref:Black Hill /Src:M

Name of Steggles Pty Limited dated 20 August 1999

Form 245

SALMAN HAQ
LVL 42
225 GEORGE ST
SYDNEY NSW 2000

remove this top section if desired before framing

Certificate of Registration on Change of Name

AUSTRALIAN SECURITIES COMMISSION

Corporations Law Sub-section 171 (12)

This is to certify that

STEGGLES PTY LTD

Australian Company Number 000 011 156

did on the third day of October 1994 change its name to

STEGGLES POULTRY PTY LIMITED

Australian Company Number 000 011 156

The company is a proprietary company.

The company is limited by shares.

The company is taken to be registered as a company under the Corporations Law of New South Wales.

Given under the seal of the Australian Securities Commission on this third day of October, 1994.

Alan Cameron
Chairman

Req:R700718 /Doc:DL 9823631 /Rev:30-Jul-2003 /Sts:NO.OK /Pgs:ALL /Prt:04-Jun-2018 07:56 /Seq:1 of 1
Ref:Black Hill /Src:M

Form: 01T
Release: 2.1
www.lpi.nsw.gov.au

TRANSFE

New South Wales
Real Property Act 19

9823631V

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

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NEW SOUTH WALES DUTY
09-07-2003 0001490193-001
SECTION 18(2)
DUTY $ **********2.00

(A) **TORRENS TITLE** Folio Identifier 131/234203 and Folio Identifier 1/653243

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
	H. M. ALLEN & CO. ABN: 89 000 121 170 LAW STATIONERS Reference: SH 47 V TRU 147/64	T TW (Sheriff)

(C) **TRANSFEROR** STEGGLES POULTRY PTY LIMITED ACN 000 011 156

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 6,050,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** THE TRUSTEES OF THE ROMAN CATHOLIC CHURCH FOR THE DIOCESE OF MAITLAND-NEWCASTLE

(I) **TENANCY:**

(J) **DATE** 8 July 2003

Certified correct for the purposes of the Real Property Act 1900 by the corporation named below the common seal of which was affixed pursuant to the authority specified and in the presence of the authorised person(s) whose signature(s) appear(s) below.

Corporation: Steggles Poultry Pty Limited ACN 000 011 156
Authority: section 127 of the Corporations Act 2001

Signature of authorised person: DTP
Name of authorised person: DAVID THOMAS BARTTER
Office held: EXECUTIVE DIRECTOR

Signature of authorised person: PTB Peter Barter.
Name of authorised person: PETER JOHN BARTTER
Office held: CHAIRMAN.

STEGGLES POULTRY PTY LIMITED A.C.N. 000 011 156 Common Seal

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: H E Murray
Signatory's capacity: transferee's solicitor

All handwriting must be in block capitals.

LAND REGISTRY SERVICES

Historical Title

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/5/2018 3:37PM

FOLIO: 1131/1057179

First Title(s): VOL 11048 FOL 86 OLD SYSTEM
Prior Title(s): 131/234203 1/653243

Recorded	Number	Type of Instrument	C.T. Issue
20/8/2003	DP1057179	DEPOSITED PLAN	FOLIO CREATED EDITION 1
18/3/2010	AF379704	REQUEST	EDITION 2
21/1/2013	DP1181970	DEPOSITED PLAN	
12/8/2013	AH940824	DEPARTMENTAL DEALING	
7/6/2016	AK466240	WITHDRAWN - TRANSFER GRANTING EASEMENT	
6/7/2016	AK511053	TRANSFER GRANTING EASEMENT	EDITION 3

*** END OF SEARCH ***

Black Hill PRINTED ON 28/5/2018

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LAND REGISTRY SERVICES **Title Search**

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1131/1057179

SEARCH DATE	TIME	EDITION NO	DATE
4/6/2018	8:00 AM	3	6/7/2016

LAND

LOT 1131 IN DEPOSITED PLAN 1057179
AT BLACK HILL
LOCAL GOVERNMENT AREA CESSNOCK
PARISH OF STOCKRINGTON COUNTY OF NORTHUMBERLAND
TITLE DIAGRAM DP1057179

FIRST SCHEDULE

THE TRUSTEES OF THE ROMAN CATHOLIC CHURCH FOR THE DIOCESE OF MAITLAND-NEWCASTLE

SECOND SCHEDULE (7 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 LAND EXCLUDES MINERALS OF THE PART FORMERLY IN 1/653243. SEE CROWN GRANT
3 EXCEPTING LAND BELOW A DEPTH FROM THE SURFACE OF 30.48 METRES AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 BK 2901 NO 303 LAND EXCLUDES MINERALS OF THE PART FORMERLY IN 131/234203
5 EXCEPTING THEREOUT THE LAND RESUMED FOR WATER PIPELINE SHOWN IN THE TITLE DIAGRAM, VIDE GOV. GAZ. DATED 21-3-1884.
6 EASEMENT FOR TRANSMISSION LINE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM, VIDE GAZ 18-3-1966 FOLIO 1182
7 AK511053 EASEMENT FOR PIPELINE VARIABLE WIDTH AFFECTING THE PART DESIGNATED (A) IN DP1181970

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Appendix F EPA Records

List of NSW Contaminated Sites Notified to EPA as of 16 April 2018

Background

A strategy to systematically assess, prioritise and respond to notifications under Section 60 of the *Contaminated Land Management Act 1997* (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under *Government Information (Public Access) Act 2009*.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

For some notifications, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any offsite consequences to the community or environment. Such sites would still need to be cleaned up, but this could be done in conjunction with any subsequent building or redevelopment of the land. These sites may not require intervention under the CLM Act, but could be dealt with through the planning and development consent process.

Where indications are that the nominated site is causing actual harm to the environment or an unacceptable offsite impact (i.e. it is a "significantly contaminated site"), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site.

As such, the sites notified to the EPA and presented in the following table are at various stages of the assessment and/or remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The tables provide an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the responsible landowner.

The following questions and answers may assist those interested in this issue:

Frequently asked questions

What is the difference between the "List of NSW Contaminated Sites Notified to the EPA" and the "Contaminated Land: Record of Notices"?

A site will be on the Contaminated Land: Record of Notices only if the EPA has issued a regulatory notice in relation to the site under the *Contaminated Land Management Act 1997*.

The sites appearing on this "List of NSW contaminated sites notified to the EPA" indicate that the notifiers consider that the sites are contaminated and warrant reporting to the EPA. However, the contamination may or may not be significant enough to warrant regulation by the EPA. The EPA needs to review and, if necessary, obtain more information before it can make a determination as to whether the site warrants regulation.

Why my site appears on the list?

Your site appears on the list because of one or more of the following reasons:

- The site owner and/or the person partly or fully responsible for causing the contamination notified to the EPA about the contamination under Section 60 of the *Contaminated Land Management Act 1997*. In other words, the site owner or the "polluter" believes the site is contaminated.
- The EPA has been notified via other means and is satisfied that the site is or was contaminated.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that the EPA is aware of, with regard to its regulatory role under the CLM Act. An absence of a site from the list does not necessarily imply the site is not contaminated.

The EPA relies upon responsible parties to notify contaminated sites.

How are these notified contaminated sites managed by the EPA?

There are different ways that the EPA manages these notified contaminated sites. First, an initial assessment is carried out by the EPA. At the completion of the initial assessment, the EPA may take one or more than one of the following management approaches:

- The contamination warrants the EPA's direct regulatory intervention either under the *Contaminated Land Management Act 1997* or the *Protection of the Environment Operations Act 1997* (POEO Act), or both. Information about current or past regulatory action on this site can be found on EPA website.
- The contamination with respect to the current use or approved use of the site, as defined under the *Contaminated Land Management Act 1997,* is not significant enough that it warrants EPA regulation.
- The contamination does not require EPA regulation and can be managed by a planning approval process.
- The contamination is related to an operational Underground Petroleum Storage System, such as a service station or fuel depot. The contamination may be managed under the POEO Act and the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2014.
- The contamination is being managed under a specifically tailored program operated by another agency (for example t
- he Department of Industry and Investment's *Derelict Mines Program*).

I am the owner of a site that appears on the list. What should I do?

First of all, you should ensure the current use of the site is compatible with the site contamination. Secondly, if the site is the subject of EPA regulation, make sure you comply with the regulatory requirements, and you have considered your obligations to notify other parties who may be affected.

If you have any concerns, contact us and we may be able to offer you general advice, or direct you to accredited professionals who can assist with specific issues.

I am a prospective buyer of a site that appears on the list. What should I do?

You should seek advice from the vendor to put the contamination issue into perspective. You may need to seek independent expert advice.

The information provided in the list is meant to be indicative only, and a starting point for your own assessment. Site contamination as a legacy of past site uses is not uncommon,

particularly in an urbanised environment. If the contamination on a site is properly remediated or managed, it may not materially impact upon the intended future use of the site. However, each site needs to be considered in context.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or *Protection of the Environment Operations Act 1997*. Alternatively, the EPA may require information via a notice issued under s77 of the *Contaminated Land Management Act 1997* or issue a Preliminary Investigation Order.
Regulation under CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the *Contaminated Land Management Act 1997* is not required.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997*. A regulatory approach is being finalised.

Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the *Environmental Planning and Assessment Act 1979* (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the *Protection of the Environment Operations Act 1997* (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the *Environmental Planning and Assessment Act 1979* (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the *Contaminated Land Management Act 1997* (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
ABBOTSFORD	Former Gasworks	83 Wymston PARADE	Gasworks	Contamination formerly regulated under the CLM Act	-33.85288351	151.1265979
ABBOTSFORD	Former Gasworks	82, 83, 84 Wymston Pde, & 37, 39, 43, 45 St Albans STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.85288316	151.1267729
ABBOTSFORD	Former Gasworks	43 St Albans STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.85270604	151.126976
ABBOTSFORD	Former Gasworks	85 Wymston PARADE	Gasworks	Regulation under CLM Act not required	-33.85265214	151.1266277
ABBOTSFORD	Former Gasworks	80-81 Wymston Pde and 35 and 41 St Albans STREET	Gasworks	Regulation under CLM Act not required	-33.85306653	151.1268142
ABERDEEN	Former Transport Depot	87-89 St Andrew STREET	Other Industry	Regulation under CLM Act not required	-32.17160931	150.8972859
ALBION PARK	Caltex Albion Park Service Station	1 Calderwood ROAD	Service Station	Regulation under CLM Act not required	-34.57131362	150.7647971
ALBION PARK RAIL	Caltex Service Station	174 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.56134097	150.7953663
ALBION PARK RAIL	Caltex Service Station	31 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.55162786	150.7880626
ALBION PARK RAIL	Former Timber Storage Area	36 Rivulet CRESCENT	Other Industry	Regulation under CLM Act not required	-34.54872597	150.7899351
ALBURY	Former Gasworks and surrounding commercial land.	441 Kiewa STREET	Gasworks	Contamination currently regulated under CLM Act	-36.08357983	146.9137004
ALBURY	Former Thales Australia site, Albury	161 Fallon STREET	Other Industry	Contamination currently regulated under CLM Act	-36.064966	146.9434831
ALBURY	Former Caltex Service Station	624 Young STREET	Service Station	Contamination formerly regulated under the CLM Act	-36.07555262	146.9256466
ALBURY	Mobil Depot, Railway Place Albury	1 Railway PLACE	Other Petroleum	Regulation under CLM Act not required	-36.08526805	146.9236999
ALBURY	Woolworths Petrol	515 Young STREET	Service Station	Regulation under CLM Act not required	-36.08073723	146.92351
ALBURY	Former Caltex Service Station	842 David STREET	Service Station	Regulation under CLM Act not required	-36.06398743	146.9252143
ALBURY	SRA Land, 514 to 526 Young Street	514 to 526 Young STREET	Other Petroleum	Regulation under CLM Act not required	-36.08084123	146.9241682
ALBURY	Coles Express Albury	465 Guinea STREET	Service Station	Regulation under CLM Act not required	-36.07513665	146.9213077
ALBURY	Albury Plaza	Cnr Smollett Street and Townsend STREET	Other Industry	Regulation under CLM Act not required	-36.08112933	146.9135719
ALBURY	Mobil Albury Aviation Fuel Depot	Hangar 8 (Albury Airport), Ogden PLACE	Other Petroleum	Regulation under CLM Act not required	-36.07178139	146.9530165
ALBURY	SRA Land	448 and 452 Young STREET	Unclassified	Regulation under CLM Act not required	-36.08438605	146.9235454
ALBURY	Caltex Service Station	Dean Street, Corner Creek STREET	Service Station	Regulation under CLM Act not required	-36.07978937	146.9110825
ALEXANDRIA	Australia Post	10-24 Ralph STREET	Other Industry	Contamination being managed via the planning process (EP&A Act)	-33.91583041	151.197997
ALEXANDRIA	Alexandra Canal Sediments	Off Huntley STREET	Unclassified	Contamination currently regulated under CLM Act	-33.92204213	151.1770009

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
ALEXANDRIA	Former Cadbury Schweppes	49-59 O'Riordan STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.91406619	151.195067
ALEXANDRIA	Former Mobil Service Station	20 O'Riordan STREET	Service Station	Regulation under CLM Act not required	-33.9075539	151.2014811
ALEXANDRIA	Caltex Alexandria Service Station	133 Wyndham St, cnr McEvoy STREET	Service Station	Regulation under CLM Act not required	-33.90220927	151.2000425
ALEXANDRIA	Mascot Developments	494-504 Gardeners ROAD	Other Industry	Regulation under CLM Act not required	-33.9198218	151.191282
ALEXANDRIA	Alexandria GoGas	562 Botany ROAD	Service Station	Regulation under CLM Act not required	-33.91577222	151.2000753
ALEXANDRIA	Australian Refined Alloys	202-212 Euston ROAD	Metal Industry	Regulation under CLM Act not required	-33.91505136	151.185872
ALEXANDRIA	Perry Park	1B Maddox STREET	Landfill	Regulation under CLM Act not required	-33.90809949	151.1962945
ALEXANDRIA	Alexandria Gardens	146-156 Wyndham St & 146-156 Botany Rd	Unclassified	Regulation under CLM Act not required	-33.89956961	151.1997377
ALEXANDRIA	Formerly Gas N Go Alexandria (fully redeveloped into residential apartment as of September 2016)	10-20 Botany ROAD	Service Station	Under assessment	-33.895363	151.198779
ALEXANDRIA	Sydney Park	Sydney Park, Alexandria ROAD	Landfill	Under assessment	-33.91163421	151.1840827
ALEXANDRIA	Former Industrial Site	16 O'Riordan STREET	Other Industry	Under assessment	-33.9069796	151.201902
ALSTONVILLE	Caltex Service Station Alstonville	73 Main STREET	Service Station	Regulation under CLM Act not required	-28.84115994	153.4388699
AMBARVALE	Caltex Service Station	37 Woodhouse DRIVE	Service Station	Regulation under CLM Act not required	-34.08438034	150.8019168
ANNANDALE	7-Eleven (former Mobil) Annandale Service Station	198 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.88706434	151.1741135
ANNANDALE	Shell Coles Express Service Station	124-126 Johnston STREET	Service Station	Regulation under CLM Act not required	-33.88085651	151.1704805
APPIN	Elladale Creek Aqueduct Upper Canal	Macquariedale ROAD	Unclassified	Regulation under CLM Act not required	-34.18867067	150.7539597
APPIN	West Cliff Colliery	Wedderburn ROAD	Other Petroleum	Regulation under CLM Act not required	-34.21970612	150.8217522
ARDLETHAN	Landmark Fertiliser Storage Facility	18 & 24-26 Ariah STREET	Chemical Industry	Regulation under CLM Act not required	-34.35696645	146.9007084
ARGENTON	NSW Mines Rescue Services - Argenton	533 Lake ROAD	Other Industry	Regulation under CLM Act not required	-32.93807208	151.6269664
ARMIDALE	Gasworks and portion of Harris Park	Corner of Beardy Street and Allingham STREET	Gasworks	Contamination currently regulated under CLM Act	-30.51157406	151.6623073
ARMIDALE	Former Mobil Depot	132 Niagara STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-30.51115918	151.6490343
ARMIDALE	RTA land adjoining Martin Street estate	adjoining Martin STREET	Other Industry	Contamination formerly regulated under the CLM Act	-30.5045	151.6433
ARMIDALE	Martin Street , Crown Land	Martin STREET	Other Industry	Contamination formerly regulated under the CLM Act	-30.50414076	151.6429516

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
ARMIDALE	Caltex Service Station	146 Miller STREET	Service Station	Regulation under CLM Act not required	-30.51362759	151.6481123
ARMIDALE	Shell Service Station	93 Marsh STREET	Service Station	Regulation under CLM Act not required	-30.51299824	151.6697557
ARMIDALE	Parklands near the former gasworks	Beardy Street and Allingham STREET	Gasworks	Regulation under CLM Act not required	-30.51013465	151.6652722
ARMIDALE	Martin Street Estate, Lot 3	Lot 3 Martin STREET	Other Industry	Regulation under CLM Act not required	-30.5066659	151.6453692
ARMIDALE	Martin Street Estate	Martin STREET	Other Industry	Regulation under CLM Act not required	-30.50559024	151.6431854
ARMIDALE	Caltex Armidale Girraween Service Station	6-8 Queen Elizabeth DRIVE	Service Station	Regulation under CLM Act not required	-30.50348872	151.6510748
ARMIDALE	Former Shell Depot	134 Niagara STREET	Other Petroleum	Regulation under CLM Act not required	-30.51180178	151.6488634
ARMIDALE	Caltex Service Station	144 Marsh STREET	Service Station	Regulation under CLM Act not required	-30.51709925	151.6675802
ARMIDALE	Caltex North Hill Service Station	2-4 Marsh STREET	Service Station	Regulation under CLM Act not required	-30.50320439	151.6727051
ARMIDALE	Mobil Armidale Service Station and Former Depot	10-12 McLennan STREET	Service Station	Regulation under CLM Act not required	-30.51107573	151.648242
ARMIDALE	Caltex Service Station	19/10541 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-30.53210764	151.6160492
ARMIDALE	Armidale Dumaresq Council Grafton Road Depot	15-25 Grafton ROAD	Other Petroleum	Regulation under CLM Act not required	-30.52058076	151.6815261
ARNCLIFFE	7-Eleven Arncliffe	28 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.93428397	151.1525438
ARTARMON	7-Eleven (former Mobil) Artarmon Service Station	477 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.81053826	151.1774248
ASHBY	Ashby Dry Dock	via Clarence STREET	Other Industry	Contamination formerly regulated under the CLM Act	-29.44158377	153.1972304
ASHFIELD	Vehicle Workshop	445-449 Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.88826829	151.1167477
ASQUITH	BP Service Station	462 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.68982678	151.106156
ATTUNGA	Attunga Limestone Mine (Waste Oil Site)	Garthowen ROAD	Other Industry	Regulation under CLM Act not required	-30.92920627	150.8579435
AUBURN	Former Ajax chemical factory	9 Short STREET	Other Industry	Contamination currently regulated under CLM Act	-33.83671601	151.0292071
AUBURN	Department of Corrective Services land adjacent to the former	Jamieson STREET	Landfill	Contamination formerly regulated under the CLM Act	-33.82928257	151.0590653
AUBURN	DIC Australia	323 Chisholm ROAD	Other Industry	Regulation under CLM Act not required	-33.87228962	151.0157032
AUBURN	Janyon	Manchester ROAD	Other Industry	Regulation under CLM Act not required	-33.84467826	151.020745
AUBURN	Maintrain Facility - Sydney Trains Auburn	Manchester ROAD	Other Industry	Regulation under CLM Act not required	-33.84410947	151.0242502
AWABA	Awaba Colliery	Wilton ROAD	Other Industry	Regulation under CLM Act not required	-33.02098186	151.5383612

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BALGOWLAH	BP Service Station	Cnr Sydney Road and Maretimo STREET	Service Station	Regulation under CLM Act not required	-33.79546175	151.2559309
BALGOWLAH	Part of Manly Council Maintenance Depot	8-10 Roseberry STREET	Other Petroleum	Regulation under CLM Act not required	-33.78928907	151.2679557
BALGOWNIE	Fuel Power Plus	99 Balgownie ROAD	Service Station	Under assessment	-34.38925632	150.8808544
BALLINA	Former Mobil Service Station	37-41 Cherry STREET	Service Station	Regulation under CLM Act not required	-28.87022308	153.5620713
BALLINA	Ballina Shell	273 River STREET	Service Station	Regulation under CLM Act not required	-28.86809272	153.5552789
BALLINA	Woolworths Petrol	Kerr STREET	Service Station	Regulation under CLM Act not required	-28.85824461	153.5605439
BALLINA	Ballina Mays Motors	River STREET	Other Petroleum	Regulation under CLM Act not required	-28.86935402	153.5585931
BALRANALD	Caltex Service Station	Sturt HIGHWAY	Service Station	Regulation under CLM Act not required	-34.66747746	143.5662034
BANKSIA	Woolworths Petrol Service Station Banksia	314 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.94567308	151.1416884
BANKSMEADOW	Orica Botany Groundwater Project	16-20 Beauchamp ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.9552673	151.2151954
BANKSMEADOW	Orica Botany (Pre-2003 Regulation)	Port Feeder ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.9516159	151.2195804
BANKSMEADOW	Orica Former Chlor Alkali Plant	Botany Industrial PARK	Chemical Industry	Contamination currently regulated under CLM Act	-33.95664283	151.221685
BANKSMEADOW	Pacific National Rail Siding	Beauchamp ROAD	Unclassified	Contamination currently regulated under CLM Act	-33.95757712	151.2204974
BANKSMEADOW	Caltex Terminal	1-3 Penrhyn ROAD	Other Petroleum	Contamination currently regulated under POEO Act	-33.96335328	151.2171062
BANKSMEADOW	Orica Car Park Waste Encapsulation	Corish CIRCLE	Landfill	Contamination currently regulated under POEO Act	-33.94703665	151.22083
BANKSMEADOW	Discovery Cove, Former Ampol Rail Terminal	1801 Botany ROAD	Other Petroleum	Regulation being finalised	-33.96162178	151.2184122
BANKSMEADOW	Former Pipeline	Corish CIRCLE	Other Petroleum	Regulation being finalised	-33.94705787	151.2209919
BANKSMEADOW	Former Mobil Banksmeadow Terminal	Coal Pier ROAD	Other Petroleum	Regulation under CLM Act not required	-33.95405624	151.2142048
BANKSTOWN	7-Eleven Service Station	689 Henry Lawson DRIVE	Service Station	Regulation under CLM Act not required	-33.92749953	150.9804784
BANORA POINT	Caltex Service Station	Corner Leisure Drive and Darlington DRIVE	Service Station	Regulation under CLM Act not required	-28.21390712	153.5417434
BARGO	Tahmoor Colliery	Remembrance DRIVE	Other Industry	Regulation under CLM Act not required	-34.25090795	150.5793631
BARMEDMAN	Caltex - Barmedman	Corner Watson Street and Star STREET	Other Petroleum	Regulation under CLM Act not required	-34.14351302	147.3824934
BARRACK HEIGHTS	Caltex Service Station	332-336 Shellharbour ROAD	Service Station	Regulation under CLM Act not required	-34.56489171	150.8597814
BATEAU BAY	Former landfill	The Entrance ROAD	Landfill	Contamination currently regulated under CLM Act	-33.3938305	151.4699046

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BATEAU BAY	Woolworths Service Station Bateau Bay	9 Bay Village ROAD	Service Station	Regulation under CLM Act not required	-33.37316432	151.4737125
BATEHAVEN	Caltex Service Station	264 Beach ROAD	Service Station	Regulation under CLM Act not required	-35.73255166	150.1997536
BATEHAVEN	Coles Express Service Station Batehaven	198 Beach ROAD	Service Station	Regulation under CLM Act not required	-35.72671807	150.1944931
BATEMANS BAY	Caltex Service Station	87-89 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.71940701	150.1762788
BATHURST	Former Police Station	Corner of William Street and Durham STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.41592424	149.5842233
BATHURST	Former Gasworks	71 Russell STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.42420302	149.5864517
BATHURST	Shell Coles Express Service Station	(Cnr Stewart and Rocket Street) 298 Stewart STREET	Service Station	Regulation under CLM Act not required	-33.41910999	149.5677773
BATHURST	Former Shell Depot Bathurst	56 Bant STREET	Other Petroleum	Regulation under CLM Act not required	-33.43471575	149.5774595
BATHURST	Bathurst Rail Fabrication Centre	34 Alpha STREET	Other Industry	Regulation under CLM Act not required	-33.43037796	149.5821533
BATHURST	Bathurst - Former Caltex Depot	114 Howick STREET	Other Petroleum	Regulation under CLM Act not required	-33.42296963	149.5862574
BATHURST	Caltex Bathurst Service Station	53 Durham STREET	Service Station	Regulation under CLM Act not required	-33.41689545	149.5848527
BATHURST	Former Mobil Depot	1 Lambert STREET	Other Petroleum	Regulation under CLM Act not required	-33.42875534	149.5806344
BATHURST	Crago Mill site	Piper STREET	Other Industry	Regulation under CLM Act not required	-33.42777602	149.5809428
BATHURST	Former Mobil Depot	Lower Russell STREET	Other Petroleum	Regulation under CLM Act not required	-33.42497876	149.585128
BATHURST	Shell Coles Express Bathurst Service Station	59 Durham STREET	Service Station	Regulation under CLM Act not required	-33.41639415	149.5843243
BATHURST	Devro Cattle Hide Processing Plant	46 Vale ROAD	Other Industry	Regulation under CLM Act not required	-33.43926137	149.5803563
BAULKHAM HILLS	Caltex Baulkham Hills Service Station	117 Seven Hills ROAD	Service Station	Regulation under CLM Act not required	-33.76139872	150.9750767
BAULKHAM HILLS	Caltex Service Station	130 Seven Hills ROAD	Service Station	Regulation under CLM Act not required	-33.76180431	150.9746297
BAULKHAM HILLS	Shell Coles Express Service Station	363 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.7601819	150.9916224
BEACON HILL	Caltex Service Station	176 Warringah ROAD	Service Station	Contamination currently regulated under CLM Act	-33.75381485	151.2602617
BEACONSFIELD	63-85 Victoria St, Beaconsfield	63-85 Victoria STREET	Other Industry	Regulation under CLM Act not required	-33.9102929	151.2016275
BEGA	Coles Express (former Caltex) Service Station	2-6 Swan (Corner Carp) STREET	Service Station	Regulation under CLM Act not required	-36.67388263	149.838163
BEGA	Former BP Service Station	100 - 102 Gipps STREET	Service Station	Regulation under CLM Act not required	-36.67563094	149.8433291
BEGA	Caltex Service Station	36-40 Lagoon STREET	Service Station	Regulation under CLM Act not required	-36.66832965	149.8289048

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BEGA	Former Bega Gasworks	19-29 Upper STREET	Gasworks	Under assessment	-36.67710613	149.8480253
BELMONT	Coles Express Belmont Service Station	502 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.03317155	151.6605194
BELMONT	Former Ampol Service Station	467-469 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.0299728	151.6613301
BELMONT NORTH	Woolworths Service Station Belmont North	399 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.02454211	151.6634893
BELMONT NORTH	Caltex Belmont North Service Station	406 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.02476876	151.6623655
BELMONT NORTH	Belmont Bus Depot	2 Floraville ROAD	Other Petroleum	Regulation under CLM Act not required	-33.02476269	151.6606657
BELMORE	SRA Land	348 Burwood ROAD	Unclassified	Regulation under CLM Act not required	-33.91753611	151.0859487
BELMORE	7-Eleven Service Station	792-794 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.92567992	151.0873469
BELROSE	Glenrose Shopping Centre	56-58 Glen STREET	Unclassified	Contamination currently regulated under CLM Act	-33.73917996	151.2101029
BELROSE	Woolworths Petrol	60 Glen STREET	Service Station	Regulation under CLM Act not required	-33.74009002	151.2091045
BELROSE	Caltex Service Station	157 Forest WAY	Service Station	Regulation under CLM Act not required	-33.7347675	151.2212004
BERESFIELD	BP Beresfield Truckstop	2 Kinta Drive, corner John Renshaw DRIVE	Service Station	Regulation under CLM Act not required	-32.81122768	151.6393427
BERESFIELD	Former Koppers Timber Treatment Site	53 Weakleys DRIVE	Other Industry	Regulation under CLM Act not required	-32.79902937	151.6358846
BERKELEY VALE	Former Berkeley Vale Service Station	121-123 Lakedge AVENUE	Service Station	Regulation under CLM Act not required	-33.34899186	151.4423109
BERKSHIRE PARK	Shell Coles Express Berkshire Park	746 - 752 Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.66508654	150.7990243
BEROWRA	Caltex Berowra Service Station	12-14 Berowra Waters ROAD	Service Station	Regulation under CLM Act not required	-33.6233827	151.1505554
BEROWRA	7-Eleven Berowra Service Station	965-969 Pacific (Cnr Waratah Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-33.62673163	151.1479171
BEROWRA	Shell Coles Express Berowra	955 Pacific (Cnr Yallambee Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-33.62818015	151.1475736
BEROWRA	42 Berowra Waters Road	42 Berowra Waters ROAD	Unclassified	Regulation under CLM Act not required	-33.6203211	151.1482454
BERRIGAN	Caltex Service Station Berrigan	155-165 Chanter STREET	Service Station	Regulation under CLM Act not required	-35.6557616	145.8015557
BERRY	Berry Service Centre - Shell Branded	88 Queen STREET	Service Station	Regulation under CLM Act not required	-34.77571634	150.6961713
BERRY	Shell Berry - Now BP branded	75 Queen STREET	Service Station	Under assessment	-34.77500516	150.695167
BEXLEY	7-Eleven Bexley	474 Forest ROAD	Service Station	Regulation under CLM Act not required	-33.95160096	151.1252355
BEXLEY	7-Eleven (former Mobil) Service Station Bexley	613 Forest ROAD	Service Station	Regulation under CLM Act not required	-33.95539246	151.118447

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BILLINUDGEL	CSR Readymix	Mogo PLACE	Other Industry	Regulation under CLM Act not required	-28.50210255	153.5278161
BLACKMANS FLAT	Mount Piper Extension Development Site	2847 Boulder ROAD	Other Industry	Regulation under CLM Act not required	-33.35619968	150.0279881
BLACKMANS FLAT	Lamberts Gully Mine	Castlereagh HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.36713827	150.0483236
BLACKTOWN	Former Caltex Service Station	131 Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.75866104	150.8962614
BLACKTOWN	Valspar Blacktown	4 Steel STREET	Chemical Industry	Regulation under CLM Act not required	-33.75425018	150.9127714
BLACKTOWN	Land at Reservoir Road	Reservoir ROAD	Unclassified	Regulation under CLM Act not required	-33.79119448	150.8967838
BLACKTOWN	7-Eleven Service Station	60 Walters ROAD	Service Station	Regulation under CLM Act not required	-33.77599783	150.8948926
BLAKEHURST	Woolworths Service Station Blakehurst	390 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.990197	151.11361
BLAKEHURST	The Bay Nursing Home	392-394 Princes HIGHWAY	Service Station	Under assessment	-33.99030465	151.1140293
BLAXLAND	7-Eleven (former Mobil) Service Station	137 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.74627	150.6137669
BOAMBEE	Lindsay Bros transport depot site	542 Pacific HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-30.33106848	153.0802985
BOAMBEE	BP-branded (former Mobil) Boambee Service Station	601 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-30.33544287	153.0817266
BOBS FARM	Bob's Farm	15 Fenningham Island ROAD	Other Industry	Regulation under CLM Act not required	-32.74867207	152.0316217
BOGGABILLA	Former Caltex Service Station	90 Simpson Street, corner Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-28.60654029	150.3571056
BOGGABILLA	Lowes (Former Mobil) Depot	Newell HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-28.61023985	150.3529156
BOMADERRY	Caltex Service Station	341 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.84561952	150.5946978
BOMADERRY	Caltex Service Station	246 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.83833824	150.5958799
BOMADERRY	Former Mobil Emoleum Depot	7 Victa WAY	Other Petroleum	Regulation under CLM Act not required	-34.84454618	150.6139462
BOMADERRY	Former Shell Depot	44 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-34.85193621	150.6117038
BOMADERRY	SRA Land	Lot 2 Meroo STREET	Unclassified	Regulation under CLM Act not required	-34.85314813	150.6099573
BOMADERRY	Bomaderry Works Depot	10 McIntyre WAY	Other Petroleum	Regulation under CLM Act not required	-34.84576748	150.6131411
BOMADERRY	Commercial Land	320 Princes HIGHWAY	Other Industry	Under assessment	-34.84424073	150.5958149
BOMBALA	Caltex Service Station Bombala	159-161 Maybe STREET	Service Station	Regulation under CLM Act not required	-36.91234945	149.2374622
BOMBALA	Former Bright Street Timber Mill	Bright STREET	Other Industry	Regulation under CLM Act not required	-36.91547645	149.2302454

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BOMBALA	Caltex Bombala Service Station	High Street corner Stephen STREET	Service Station	Regulation under CLM Act not required	-36.90447935	149.241292
BOMBALA	Prime Pine site	Sandy LANE	Other Industry	Regulation under CLM Act not required	-36.9315425	149.2110959
BOMEN	Caltex Terminal	34 Lewington STREET	Other Petroleum	Regulation under CLM Act not required	-35.0700202	147.4121955
BONDI	BP-branded Service Station	185 Bondi ROAD	Service Station	Regulation under CLM Act not required	-33.89432208	151.2647671
BONDI	Caltex Service Station Bondi	51 Bondi ROAD	Service Station	Regulation under CLM Act not required	-33.8936307	151.260001
BONDI JUNCTION	Waverley Bus Depot	1-15 Oxford STREET	Other Industry	Regulation under CLM Act not required	-33.89165341	151.2421246
BONNY HILLS	Bonny View Store	923 Ocean DRIVE	Service Station	Regulation under CLM Act not required	-31.59075636	152.8392935
BONNYRIGG	Metro Bonnyrigg (Formerly United & AP SAVER)	709 Cabramatta ROAD	Service Station	Contamination currently regulated under POEO Act	-33.893058	150.892476
BONNYRIGG HEIGHTS	BP-Branded Service Station Bonnyrigg	451 North Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.89416327	150.8578378
BOOLAROO	Cockle Creek and Cockle Bay Sediments	Off Creek Reserve ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.96079541	151.6141327
BOOLAROO	Pasminco Cockle Creek Smelter	Lake ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.94434593	151.6307345
BOOLAROO	Incitec Pivot	13 Main STREET	Other Industry	Contamination formerly regulated under the CLM Act	-32.94803538	151.6302187
BOOLAROO	Bunnings Site - Pasminco Cockle Creek	13a Main ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-32.94364503	151.6252316
BOOLAROO	Cardiff West Estate - Pasminco Cockle Creek	Adjacent to PCC Smelter at 13A Main ROAD	Metal Industry	Regulation under CLM Act not required	-32.93950137	151.6349183
BOOROWA	Mobil Service Station	63-69 Marsden STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.44157331	148.7162391
BOOROWA	Former Mobil Depot	14-16 Brial STREET	Other Petroleum	Regulation under CLM Act not required	-34.43673234	148.7300821
BOTANY	Botany, Underwood	14a Underwood AVENUE	Unclassified	Contamination being managed via the planning process (EP&A Act)	-33.94508532	151.1947626
BOTANY	Former Industrial Site	28 Folkestone PARADE	Unclassified	Contamination being managed via the planning process (EP&A Act)	-33.95187539	151.1960537
BOTANY	Nuplex Resins	49-61 Stephen ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.952588	151.21101
BOTANY	Former Aerosols of Australia	1617 Botany ROAD	Chemical Industry	Regulation under CLM Act not required	-33.9529386	151.2037468
BOTANY	Former Tannery	2 Daniel STREET	Other Industry	Regulation under CLM Act not required	-33.94126194	151.1991087
BOTANY	Roads and Maritime Service	5 - 9 Lord STREET	Other Industry	Regulation under CLM Act not required	-33.94100279	151.1968763
BOURKE	Caltex Service Station	82-86 Anson STREET	Service Station	Regulation under CLM Act not required	-30.09500388	145.9414388
BOURKE	Former Shell Bourke Depot	94-106 Anson STREET	Service Station	Regulation under CLM Act not required	-30.09548497	145.9436745

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BOWENFELS	Bowenfels Field Support Centre	9-13 Cooerwull ROAD	Other Petroleum	Regulation under CLM Act not required	-33.47514572	150.1323899
BOWRAL	Former Gasworks	Merrigang STREET	Gasworks	Contamination currently regulated under CLM Act	-34.4783957	150.4255053
BOWRAL	Shell Coles Express Bowral Service Station	430 Bong Bong STREET	Service Station	Regulation under CLM Act not required	-34.48269596	150.417389
BOX HILL	Former Waste Management Facility	25 Terry ROAD	Landfill	Regulation under CLM Act not required	-33.65559259	150.8977986
BOX HILL	Former Poultry Farm	27-33 Boundary ROAD	Other Industry	Under assessment	-33.64868299	150.8816163
BOX HILL	Former Poultry Farm	19-25 Boundary ROAD	Other Industry	Under assessment	-33.64975248	150.8819725
BRANXTON	Former Service Station Branxton	70 Maitland STREET	Service Station	Under assessment	-32.65647051	151.3516199
BREWARRINA	Dowell's Fuel	39 Doyle STREET	Service Station	Under assessment	-29.96152786	146.8612561
BRIGHTON-LE-SANDS	Shell Service Station Brighton Le Sands & adjacent land	2 General Holmes DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-33.9579214	151.1578665
BRIGHTON-LE-SANDS	Cook Park	General Holmes DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-33.9581072	151.1579572
BROADMEADOW	Former Industrial Site	16 Broadmeadow ROAD	Service Station	Regulation under CLM Act not required	-32.91444096	151.7300112
BROADMEADOW	Nineways Broadmeadow Coles Express SS	Corner Brunker Road and Lambton ROAD	Service Station	Regulation under CLM Act not required	-32.92511185	151.7364247
BROKEN HEAD	South Byron Sewage Treatment Works	Broken Head ROAD	Other Industry	Regulation under CLM Act not required	-28.67233626	153.6148974
BROKEN HILL	Caltex Service Station	73-87 Oxide STREET	Service Station	Contamination currently regulated under CLM Act	-31.95519591	141.4658647
BROKEN HILL	Former Gasworks	Cornish STREET	Gasworks	Contamination formerly regulated under the CLM Act	-31.96330562	141.4470611
BROKEN HILL	Former Caltex Depot	3 Kanandah ROAD	Service Station	Regulation under CLM Act not required	-31.98341823	141.4332211
BROKEN HILL	Former Caltex Service Station	167-173 Argent STREET	Service Station	Regulation under CLM Act not required	-31.96066663	141.4624175
BROKEN HILL	Caltex Service Station	535 Argent STREET	Service Station	Regulation under CLM Act not required	-31.95311924	141.4745274
BROKEN HILL	Tasco Petroleum (Former Mobil) Depot	5 Kanandah ROAD	Other Petroleum	Regulation under CLM Act not required	-31.9843986	141.4329127
BROKEN HILL	Former Mobil Aviation Refuelling Facility, Broken Hill Airport	Airport ROAD	Other Petroleum	Regulation under CLM Act not required	-31.99928312	141.4685759
BROKEN HILL	Former Mobil Depot	Corner Of Talc Street and Gossan STREET	Other Petroleum	Regulation under CLM Act not required	-31.96018102	141.4514752
BROOKLYN	Former Oyster Farm	139 Brooklyn (Off Government) ROAD	Unclassified	Regulation under CLM Act not required	-33.54716867	151.2229744
BROOKVALE	Coles Express Service Station Brookvale	198 Harbord ROAD	Service Station	Regulation under CLM Act not required	-33.76332299	151.2794028
BROOKVALE	Woolworths Petrol Brookvale	756 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.76170587	151.2762411

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
BROOKVALE	Caltex Service Station Brookvale	740-742 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.76146721	151.2745358
BROOKVALE	Brookvale Bus Depot	630-636 Pittwater ROAD	Other Petroleum	Regulation under CLM Act not required	-33.76641698	151.2705659
BROOKVALE	AMP Warringah Mall	Cnr Condamine Street, Old Pittwater Rd & Cross STREET	Other Industry	Regulation under CLM Act not required	-33.76729923	151.2657272
BROOKVALE	Littles Dry Cleaning	123 Old Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.76759121	151.2625932
BROOKVALE	Harrison Manufacturing Co Pty Ltd	75 Old Pittwater ROAD	Unclassified	Under assessment	-33.76498388	151.2638048
BROWNSVILLE	Caltex Service Station	342 Kanahooka ROAD	Service Station	Regulation under CLM Act not required	-34.48591734	150.8064373
BRUNSWICK HEADS	Caltex Service Station	5 Tweed STREET	Service Station	Regulation under CLM Act not required	-28.5381619	153.5487135
BUDGEWOI	Colongra Power Station	Off Scenic DRIVE	Other Industry	Under assessment	-33.21463137	151.5529338
BULAHDELAH	Caltex Service Station	8 Red Gum Road, Corner Mahogany STREET	Service Station	Regulation under CLM Act not required	-32.39837094	152.2106015
BULAHDELAH	Former Caltex Service Station	53-59 Bulahdelah WAY	Service Station	Regulation under CLM Act not required	-32.40721638	152.2110291
BULAHDELAH	BP-branded (former Mobil) Service Station	73-75 Bulahdelah WAY	Service Station	Regulation under CLM Act not required	-32.40971018	152.2105785
BULLABURRA	Former Burmah Bullaburra Service Station	367 - 369 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.72482995	150.4124537
BULLI	Scrap Yard	7 Molloy STREET	Other Industry	Contamination currently regulated under CLM Act	-34.33663195	150.9131154
BULLI	Bulli Brickworks	Quilkey PLACE	Other Industry	Regulation under CLM Act not required	-34.33263113	150.9086247
BUNGENDORE	Former Timber Treatment Plant	Corner King Street and Butmaroo STREET	Other Industry	Contamination formerly regulated under the CLM Act	-35.26151273	149.4434907
BURONGA	Caltex Service Station	Sturt Hwy Cnr Silver City HIGHWAY	Service Station	Regulation under CLM Act not required	-34.17056496	142.1813847
BURWOOD	Burwood STA Depot	Cnr Shaftesbury and Parramatta ROADS	Other Industry	Contamination formerly regulated under the CLM Act	-33.86982934	151.1089057
BYRON BAY	Residential Development	Lot 15 Seaview STREET	Unclassified	Regulation under CLM Act not required	-28.65214464	153.6165573
BYRON BAY	Butler Street Reserve Byron Bay	Butler STREET	Landfill	Under assessment	-28.6434329	153.6101099
CABARITA	Dulux (Orica Australia)	Cabarita ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.84643972	151.1157115
CABARITA	Cabarita Wellcome	33 Phillips STREET	Landfill	Ongoing maintenance required to manage residual contamination	-33.85250251	151.1176366
CABRAMATTA	Caltex Service Station Cabramatta	168 John STREET	Service Station	Regulation under CLM Act not required	-33.89422314	150.9279279
CALGA	Former service station	101 Peats Ridge ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.37592138	151.2254951
CALLALA BEACH	Callala Beach General Store	(formerly 1 Quay Rd) 114A Quay ROAD	Service Station	Regulation under CLM Act not required	-35.0101817	150.6964322

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
CAMBRIDGE GARDENS	Caltex Cambridge Park	1 Boomerang PLACE	Service Station	Regulation under CLM Act not required	-33.74068794	150.717174
CAMDEN	Camden High School (former)	John STREET	Gasworks	Regulation under CLM Act not required	-34.05114079	150.6951285
CAMDEN	Caltex Camden Service Station	21 Barsden STREET	Service Station	Regulation under CLM Act not required	-34.05808413	150.6914744
CAMDEN SOUTH	Coles Express Service Station Camden South	273 Old Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.08660995	150.6945444
CAMELLIA	Hymix Concrete	14 Grand AVENUE	Metal Industry	Contamination currently regulated under CLM Act	-33.82243454	151.044789
CAMELLIA	James Hardie Factory (former, eastern portion)	1 Grand AVENUE	Other Industry	Contamination currently regulated under CLM Act	-33.8182384	151.0261019
CAMELLIA	Bitumen Manufacturer	12 Grand AVENUE	Other Industry	Contamination currently regulated under CLM Act	-33.82189695	151.0429251
CAMELLIA	Former Asciano Properties	39 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.82056014	151.0443331
CAMELLIA	Former Akzo Nobel site	6 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.82238826	151.0319264
CAMELLIA	Veolia	37 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.81980027	151.0430689
CAMELLIA	Former Shell Clyde Refinery	Durham STREET	Other Industry	Contamination currently regulated under POEO Act	-33.82804924	151.0378966
CAMELLIA	Sydney Water	41 Grand AVENUE	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.8217493	151.0453367
CAMELLIA	Mauri Foods	15 Grand AVENUE	Other Industry	Regulation being finalised	-33.81996985	151.0335725
CAMELLIA	Hambear	14 Thackeray STREET	Metal Industry	Regulation under CLM Act not required	-33.81920482	151.0419394
CAMELLIA	Railway Land	27 Grand AVENUE	Other Industry	Regulation under CLM Act not required	-33.81910822	151.0382483
CAMELLIA	Council Reserve	11B Grand AVENUE	Metal Industry	Regulation under CLM Act not required	-33.81850502	151.0302425
CAMELLIA	Maritime Services Board	33A Grand AVENUE	Metal Industry	Regulation under CLM Act not required	-33.81836086	151.0401249
CAMELLIA	Wrigg	13 Grand AVENUE	Metal Industry	Under assessment	-33.81971361	151.0321525
CAMMERAY	Tunks Park	Brothers AVENUE	Landfill	Contamination formerly regulated under the CLM Act	-33.81734704	151.2113338
CAMMERAY	Coles Express Cammeray	477-483 Miller STREET	Service Station	Regulation under CLM Act not required	-33.82141124	151.2108658
CAMPBELLTOWN	Mobil Service Station	96-98 Queen STREET	Service Station	Regulation under CLM Act not required	-34.06407588	150.8170082
CAMPBELLTOWN	BP Macarthur Service Station	Cnr Blaxland ROAD and Campbelltown ROAD	Service Station	Regulation under CLM Act not required	-34.05312872	150.8234349
CAMPBELLTOWN	Former vehicle wrecking yard	38 Blaxland ROAD	Other Industry	Regulation under CLM Act not required	-34.06055735	150.8130598
CAMPERDOWN	O'Dea Reserve	Salisbury LANE	Landfill	Contamination formerly regulated under the CLM Act	-33.89072786	151.1736948

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
CAMPERDOWN	Former Gee Graphics	27 Church STREET	Other Industry	Regulation under CLM Act not required	-33.88737747	151.1773616
CAMPERDOWN	The Spruce	12-14 Marsden STREET	Other Industry	Regulation under CLM Act not required	-33.88720632	151.1784514
CAMPSIE	Budget Petroleum and adjacent property	403 Canterbury Road and 1 Una STREET	Service Station	Contamination currently regulated under CLM Act	-33.91605617	151.1086596
CAMPSIE	Former Sunbeam factory	60 Charlotte STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.92254225	151.1025796
CANLEY HEIGHTS	Former Caltex Canley Heights	368 Canley Vale ROAD	Service Station	Regulation under CLM Act not required	-33.88271081	150.9154176
CANLEY HEIGHTS	Caltex Canley Heights Service Station	280-286 Canley Vale ROAD	Service Station	Regulation under CLM Act not required	-33.88393501	150.9241656
CANLEY VALE	Coles Express Lansvale	99 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.89295753	150.9606136
CANLEY VALE	Former Mobil Service Station	96 Canley Vale ROAD	Service Station	Regulation under CLM Act not required	-33.88591573	150.9369801
CANOWINDRA	BP-branded Jasbe Service Station	76 Rodd STREET	Service Station	Regulation under CLM Act not required	-33.56131773	148.6682805
CANTERBURY	Metro Petroleum Service Station	13-19 Canterbury ROAD	Service Station	Contamination currently regulated under CLM Act	-33.90783455	151.125207
CARDIFF	7-Eleven Service Station	399 Main ROAD	Service Station	Regulation under CLM Act not required	-32.93391137	151.6562111
CARDIFF	Former Caltex Service Station	367 Main ROAD	Service Station	Regulation under CLM Act not required	-32.93761223	151.6577781
CARDIFF	Maneela Oval	Main ROAD	Other Industry	Regulation under CLM Act not required	-32.93018443	151.6435559
CARDIFF	Former Mobil Depot	7 Ranton STREET	Other Petroleum	Regulation under CLM Act not required	-32.94516764	151.6470387
CARDIFF	BP Service Station (Reliance Petroleum)	Corner Sturt and Main ROADS	Service Station	Regulation under CLM Act not required	-32.93792229	151.6569905
CARDIFF	Woolworths (former Mobil) Cardiff Service Station	43 Macquarie ROAD	Service Station	Regulation under CLM Act not required	-32.94118246	151.6578195
CARINGBAH	Adjacent to Spirent Australia	101-103 Cawarra ROAD	Other Industry	Contamination currently regulated under CLM Act	-34.03360747	151.1245577
CARINGBAH	Spirent Australia	105 Cawarra ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-34.03425343	151.1245092
CARINGBAH	Former Consumer Health Products Manufacturer	32-40 Cawarra ROAD	Other Industry	Regulation under CLM Act not required	-34.03024369	151.1277755
CARINGBAH	Caltex Lilli Pilli Service Station	477-481 Port Hacking ROAD	Service Station	Regulation under CLM Act not required	-34.05243807	151.1216353
CARINGBAH	7-Eleven Service Station	367 The Kingsway	Service Station	Regulation under CLM Act not required	-34.03948677	151.1203268
CARLINGFORD	Caltex Service Station Carlingford	131 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.78762398	151.0279422
CARLINGFORD	Caltex Service Station	797 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.7757819	151.0516532
CARLTON	Shell Coles Express Service Station	277 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.9748579	151.1272732

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
CARRINGTON	Commercial Metals Company (CMC) Australia Pty Ltd	117-121 Bourke STREET	Other Industry	Regulation under CLM Act not required	-32.9148832	151.7677193
CARRINGTON	Carrington redevelopment site	11 Howden STREET	Other Industry	Regulation under CLM Act not required	-32.91309509	151.7625341
CARRINGTON	Forgacs Dockyard	81 Denison STREET	Other Industry	Regulation under CLM Act not required	-32.9207441	151.764816
CARRINGTON	NAT vacant land	Bourke STREET	Unclassified	Regulation under CLM Act not required	-32.91276029	151.7685894
CARRINGTON	Dyke Point Containment Cell	Dyke ROAD	Other Industry	Regulation under CLM Act not required	-32.91763422	151.7727101
CARRINGTON	Carrington Coal Tar Pavements	Bourke Street to Dyke ROAD	Other Industry	Regulation under CLM Act not required	-32.91441348	151.770271
CARRINGTON	Pasminco Ship Loader	Dyke Berth 2 (off Bourke Street) OTHER	Metal Industry	Regulation under CLM Act not required	-32.9148698	151.7716837
CARSS PARK	Vacant Property	334 Princes HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.98628486	151.1133908
CARWELL	Cement Australia Carwell Creek Quarries	Quarry ROAD	Other Industry	Regulation under CLM Act not required	-32.85413742	149.923172
CASINO	Caltex Service Station and Depot Casino	28 & 32 Dyraaba STREET	Service Station	Regulation under CLM Act not required	-28.85488567	153.044806
CASINO	Caltex Service Station	96 Centre STREET	Service Station	Regulation under CLM Act not required	-28.86539567	153.0450654
CASINO	Former Gasworks	134-136 North STREET	Gasworks	Regulation under CLM Act not required	-28.86080712	153.0526043
CASINO	Woolworths Service Station Casino	130 Canterbury STREET	Service Station	Regulation under CLM Act not required	-28.86231341	153.0464642
CASINO	18 Beith Street, Casino	18 Beith STREET	Unclassified	Regulation under CLM Act not required	-28.84951426	153.0446585
CASINO	Corner Store	30 Barker STREET	Service Station	Under assessment	-28.86316792	153.0389124
CASINO	Casino Roadhouse	86 Johnston STREET	Service Station	Under assessment	-28.85960698	153.0562429
CASULA	Caltex Casula Service Station	646 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.95641262	150.8934783
CATHERINE HILL BAY	Catherine Hill Bay Coal Handling and Preparation Plant	1A Keene STREET	Other Industry	Regulation under CLM Act not required	-33.16120556	151.6302456
CESSNOCK	Caltex Cessnock Service Station	103-105 Wollombi (Cnr James Street) ROAD	Service Station	Regulation under CLM Act not required	-32.83936243	151.3430078
CESSNOCK	Former Mobil Service Station	102 Wollombi ROAD	Service Station	Regulation under CLM Act not required	-32.83844074	151.3436022
CESSNOCK	Former Service Station	2-4 Allandale ROAD	Service Station	Under assessment	-32.83118911	151.3560677
CHARBON	Charbon Colliery	Charbon ROAD	Other Industry	Regulation under CLM Act not required	-32.92390131	149.9839098
CHARLESTOWN	Caltex Service Station	81 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-32.96708479	151.6955919
CHARLESTOWN	Caltex Woolworths (Former BP)	91-93 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-32.96633569	151.6959051

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
CHARLESTOWN	Ausgrid Powell Street Depot	8 Powell STREET	Other Industry	Regulation under CLM Act not required	-32.95912375	151.6944136
CHARLESTOWN	7-Eleven Charlestown	273 Charlestown ROAD	Service Station	Under assessment	-32.95802555	151.6897931
CHARMHAVEN	Caltex Charmhaven Service Station	13-15 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.21655768	151.5091452
CHATSWOOD	Former Caltex Chatswood Service Station	607 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.80396472	151.1795766
CHATSWOOD	Woolworths Chatswood	364-366 Eastern Valley WAY	Service Station	Regulation under CLM Act not required	-33.78667419	151.2010828
CHATSWOOD	Caltex Service Station Chatswood	572 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.80381271	151.1789656
CHATSWOOD	Auto Repairs	2 Devonshire STREET	Service Station	Regulation under CLM Act not required	-33.8015482	151.1859632
CHATSWOOD	Coles Express Service Station Chatswood	877-879 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.79182176	151.1804867
CHATSWOOD WEST	Chatswood Toyota	728 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.79654247	151.1776136
CHERRYBROOK	Caltex Service Station	67 Shepherds DRIVE	Service Station	Regulation under CLM Act not required	-33.72069183	151.0451415
CHESTER HILL	Former Orica, Chester Hill	127 Orchard ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.8869823	150.9952873
CHIPPENDALE	Frasers Development	Wellington STREET	Unclassified	Under assessment	-33.88669108	151.2015805
CHIPPING NORTON	Former ACR	85-107 Alfred STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.92226795	150.9586496
CHIPPING NORTON	Former Solchem (Mobil) Depot Chipping Norton	49-51 Riverside ROAD	Other Petroleum	Regulation under CLM Act not required	-33.91621314	150.9696948
CHISWICK	Former Sydney Wiremills (BHP) site	Blackwall Point ROAD	Other Industry	Regulation under CLM Act not required	-33.85131849	151.1369131
CHITTAWAY BAY	Former Caltex Chittaway Point	100 Chittaway ROAD	Service Station	Regulation under CLM Act not required	-33.32707555	151.4293546
CHULLORA	Chullora Railway Workshops	Worth STREET	Other Industry	Regulation under CLM Act not required	-33.88639388	151.0598201
CLARENCE	Clarence Colliery	Chifley ROAD	Other Industry	Regulation under CLM Act not required	-33.46450217	150.2522729
CLARENDON	Coles Express Clarendon Service Station	244 Hawkesbury Valley WAY	Service Station	Regulation under CLM Act not required	-33.6083729	150.7890956
CLEARFIELD	Former Pamplings Dip Site	Off Clearfield ROAD	Cattle Dip	Regulation under CLM Act not required	-29.16287185	152.882974
CLYBUCCA	BP Service Station	2171 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-30.93913118	152.9417395
CLYDE	7-Eleven Clyde	3 Parramatta (Cnr Harbord Street) ROAD	Service Station	Regulation under CLM Act not required	-33.83494433	151.0222628
COBAR	Former Caltex (Bogas) Service Station Cobar	56-58 Marshall STREET	Service Station	Regulation under CLM Act not required	-31.49793339	145.8346684
COBAR	Mckinnons Gold Mine	Cobar ROAD	Metal Industry	Regulation under CLM Act not required	-31.78179755	145.693

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
COBAR	Caltex Service Station Cobar	Highway and Bathurst Street) STREET	Service Station	Regulation under CLM Act not required	-31.49631924	145.8275727
COBAR	Caltex Service Station	Lot 10 Railway PARADE	Service Station	Regulation under CLM Act not required	-31.49350124	145.8442372
COFFS HARBOUR	BP Service Station	134-136 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-30.29187037	153.1182106
COFFS HARBOUR	Mobil Service Station	314-316 Harbour DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-30.3056983	153.131966
COFFS HARBOUR	Mobil Coffs Harbour Airport	Aviation DRIVE	Other Petroleum	Contamination formerly regulated under the CLM Act	-30.313385	153.1175018
COFFS HARBOUR	Aussitel Backpackers Hostel	312 Harbour DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-30.3057	153.132
COFFS HARBOUR	Dan Murphy's Coffs Harbour	10 Elbow STREET	Service Station	Regulation under CLM Act not required	-30.29439262	153.115069
COFFS HARBOUR	Woolworths Petrol	Park Beach Plaza, Arthur STREET	Service Station	Regulation under CLM Act not required	-30.28101154	153.132027
COFFS HARBOUR	Caltex Service Station	157 Orlando STREET	Service Station	Regulation under CLM Act not required	-30.28975334	153.1306354
COFFS HARBOUR	Coffs Harbour Slipway	38 Marina DRIVE	Other Industry	Under assessment	-30.30325637	153.1441437
COLEAMBALLY	Former Mobil Coleambally Depot	19 Bencubbin AVENUE	Other Petroleum	Regulation under CLM Act not required	-34.80279552	145.8945239
COLLARENEBRI	Former Shell Depot	Corner Narran Street and Queen STREET	Other Petroleum	Regulation under CLM Act not required	-29.54114772	148.5789365
COLONGRA	Endeavour Colliery	Scenic DRIVE	Other Industry	Regulation under CLM Act not required	-33.21297737	151.5416882
COLYTON	Ampol Service Station	88 Great Western HIGHWAY	Service Station	Under assessment	-33.7754	150.7954
CONCORD	Caltex Service Station	89 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.86785624	151.0993769
CONCORD WEST	Caltex Service Station	369-375 Concord ROAD	Service Station	Regulation under CLM Act not required	-33.84113835	151.0888843
CONDOBOLIN	Former Mobil Depot	6 Burnett STREET	Other Petroleum	Contamination currently regulated under CLM Act	-33.08010515	147.1642972
CONDOBOLIN	BP-Branded Service Station	38 Denison Street, corner Molong STREET	Service Station	Regulation under CLM Act not required	-33.08520378	147.1524976
CONDOBOLIN	Former Ampol Depot	Cnr Parkes Road and Goobang STREET	Service Station	Regulation under CLM Act not required	-33.08034753	147.1642436
CONDOBOLIN	Former Caltex Depot	Parkes ROAD	Service Station	Regulation under CLM Act not required	-33.08255593	147.1585922
CONDOBOLIN	Mobil Condobolin Depot Railway Siding	Railway Siding behind 6 Burnett STREET	Other Petroleum	Regulation under CLM Act not required	-33.08058612	147.164225
CONSTITUTION HILL	Sydney Water Land	Caloola ROAD	Unclassified	Regulation under CLM Act not required	-33.79776636	150.9697715
COOGEE	Caltex Coogee Service Station	146-148 Coogee Bay (Cnr Mount St) ROAD	Service Station	Regulation under CLM Act not required	-33.91989232	151.2517454
COOKS HILL	Former Council Depot Cooks Hill	152 Bruce Street and 115 Corlette STREET	Other Industry	Regulation under CLM Act not required	-32.93525537	151.7641074

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
COOLAC	Coolac Service Station	Corner Hume Highway and Coleman STREET	Service Station	Regulation under CLM Act not required	-34.95435052	148.1595525
COOLAH	BP Depot (Reliance Petroleum)	72 (formerly 17-23) Cunningham STREET	Other Petroleum	Regulation under CLM Act not required	-31.82275896	149.7243171
COOLONGOLOOK	Caltex Service Station	Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-32.21648325	152.322813
COOMA	Former Shell Service Station	48-52 Sharp STREET	Service Station	Contamination formerly regulated under the CLM Act	-36.23350402	149.1299514
COOMA	Caltex Cooma Service Station	44 Sharp (Cnr Baron St) STREET	Service Station	Regulation under CLM Act not required	-36.23323489	149.1304134
COOMA	Former Mobil Cooma Depot	2 Commissioner STREET	Other Petroleum	Regulation under CLM Act not required	-36.23267537	149.1346338
COOMA	Former Caltex Cooma Depot	2 Short STREET	Service Station	Regulation under CLM Act not required	-36.2338672	149.1348862
COOMA	Lowes Petroleum Cooma Depot and Service Station (Former BP	2-4 Sharp STREET	Other Petroleum	Regulation under CLM Act not required	-36.22862603	149.1356483
COOMA	Woolworths Caltex Cooma Service Station	Bombala Street Cnr Massie STREET	Service Station	Regulation under CLM Act not required	-36.23364626	149.1267469
COOMA	Former Shell Depot	48-50 Bradley STREET	Other Petroleum	Regulation under CLM Act not required	-36.23448955	149.1347987
COONABARABRAN	Former Mobil Depot	49 Cowper STREET	Other Petroleum	Regulation under CLM Act not required	-31.27096226	149.2818461
COONABARABRAN	Shell Coles Express Service Station	2-6 John STREET	Service Station	Regulation under CLM Act not required	-31.27706775	149.27836
COONABARABRAN	Former Shell Coonabarabran CVRO	Corner Cowper St and Dawson St (formerly 51 Cowper) STREET	Other Petroleum	Regulation under CLM Act not required	-31.27003745	149.281788
COONABARABRAN	Caltex Service Station	Cnr Dawson & Drummond STREET	Service Station	Regulation under CLM Act not required	-31.26994941	149.28183
COONABARABRAN	Caltex Service Station	85-87 John STREET	Service Station	Regulation under CLM Act not required	-31.27231215	149.2771297
COONAMBLE	Former Shell Coonamble Depot	Corner Aberford Street and Quambone ROAD	Other Petroleum	Regulation under CLM Act not required	-30.95349182	148.3793432
COONAMBLE	Caltex Service Station	Quambone ROAD	Service Station	Regulation under CLM Act not required	-30.95410067	148.3792167
COORANBONG	Former Poultry Farm	64 - 98 Alton ROAD	Unclassified	Regulation under CLM Act not required	-33.06860138	151.4512156
COORANBONG	Avondale Auto Centre	677 Freemans DRIVE	Service Station	Under assessment	-33.06968809	151.4636293
COOTAMUNDRA	Cootamundra Gasworks	140-146 Hovell STREET	Gasworks	Contamination currently regulated under CLM Act	-34.64572841	148.0255049
COOTAMUNDRA	Former Amoco Depot	68-72 Hovell STREET	Other Petroleum	Contamination currently regulated under CLM Act	-34.63871124	148.0321134
COOTAMUNDRA	Former BP Depot	1-5 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-34.62915841	148.0306962
COOTAMUNDRA	Caltex Service Station	26-34 Hovell STREET	Service Station	Regulation under CLM Act not required	-34.63624703	148.0347479
COOTAMUNDRA	Former Caltex Depot	219 Sutton STREET	Other Petroleum	Regulation under CLM Act not required	-34.65126548	148.0145283

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
COOTAMUNDRA	Former Ampol Service Station	72 Parker STREET	Service Station	Regulation under CLM Act not required	-34.63471008	148.0296112
COOTAMUNDRA	Former Ampol Cootamundra Rail Siding	Back Brawlin ROAD	Other Petroleum	Under assessment	-34.65326425	148.0143068
CORAMBA	Martin Street	End of Martin Street and adjacent car park OTHER	Service Station	Ongoing maintenance required to manage residual contamination	-30.22125208	153.0156997
COROWA	Corowa Shire Council Works Depot	24 Poseidon ROAD	Other Petroleum	Regulation under CLM Act not required	-35.98807923	146.3652266
COROWA	Former Ampol Corowa	10 Bow STREET	Service Station	Regulation under CLM Act not required	-35.99364786	146.3901259
COROWA	Cignall Corowa	280 Hume STREET	Service Station	Under assessment	-36.00996015	146.3760437
CORRIMAL	7-Eleven Corrimal	138-146 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.36986923	150.8978271
CORRIMAL	Woolworths Petrol - Corrimal	275-277 Princes HIGHWAY	Service Station	Under assessment	-34.37527426	150.8962637
COWRA	Former Gasworks	30 Brougham STREET	Gasworks	Contamination currently regulated under CLM Act	-33.8389659	148.6963482
COWRA	Shell Depot	34 Brougham STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.83932421	148.6976295
COWRA	Landmark Fertiliser Storage Facility	Corner Young Road & Waratah STREET	Chemical Industry	Regulation under CLM Act not required	-33.84321832	148.6722578
COWRA	Lowes Petroleum (former BP Cowra Depot)	12 Campbell STREET	Other Petroleum	Regulation under CLM Act not required	-33.83803706	148.6977873
CRANGAN BAY	Big T Road House.	555 and 565 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.17326538	151.6083864
CREMORNE	Shell Coles Express Service Station	225 Military ROAD	Service Station	Regulation under CLM Act not required	-33.83063306	151.226223
CRESTWOOD	Former Caltex Depot Queanbeyan	36 Kendall (Cnr Stephens Rd) AVENUE	Other Petroleum	Regulation under CLM Act not required	-35.34615546	149.207807
CRESTWOOD	Former BP Queanbeyan	64 Uriarra ROAD	Service Station	Regulation under CLM Act not required	-35.34646177	149.2246263
CROA	Breen Holdings	Bate Bay ROAD	Other Industry	Regulation under CLM Act not required	-34.03861737	151.1614114
CROWS NEST	Caltex Service Station	111-121 Falcon STREET	Service Station	Regulation under CLM Act not required	-33.82868236	151.2060317
CROYDON	Caltex Service Station	404-410 Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.88853994	151.115879
CROYDON	BP Ashfield	582-586 Parramatta ROAD	Service Station	Under assessment	-33.87399409	151.1267296
CROYDON PARK	Mobil Service Station	334 Georges River ROAD	Service Station	Regulation under CLM Act not required	-33.89771626	151.0999194
CULCAIRN	Caltex Service Station	2883 Olympic HIGHWAY	Service Station	Regulation under CLM Act not required	-35.67441635	147.0356845
CULLEN BULLEN	Baal Bone Colliery	Castlereagh HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.27193875	150.0587194
CUNDLETOWN	Caltex Service Station (1 Manning River Drive)	Old Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-31.89329598	152.5068225

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
CURL CURL	John Fisher Park	Corner Harbord and Abbott ROADS	Landfill	Regulation under CLM Act not required	-33.76352692	151.2798462
DACEYVILLE	Astrolabe Park	Cook AVENUE	Landfill	Regulation being finalised	-33.92963704	151.221773
DAPTO	RailCorp Dapto	(Rear of property) 12-14 Hamilton STREET	Other Industry	Regulation under CLM Act not required	-34.50045405	150.787353
DARLINGHURST	Cross City Tunnel	Riley Street and William STREET	Service Station	Contamination was addressed via the planning process (EP&A Act)	-33.87424636	151.2158305
DARLINGHURST	Proposed Retail Unit	139-155 Palmer STREET	Unclassified	Regulation under CLM Act not required	-33.87504688	151.2168106
DARLINGHURST	18-28 Neild Avenue, Darlinghurst	18-28 Neild AVENUE	Landfill	Under assessment	-33.87876581	151.2276546
DEE WHY	Roche Products Dee Why Facility	Inman ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.73834964	151.2876392
DEE WHY	Caltex Service Station	793-797 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.74566596	151.2920719
DEE WHY	Dee Why Town Centre	Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.753169	151.2875805
DEE WHY	United Dee Why	1 The Strand STREET	Service Station	Under assessment	-33.75569207	151.2959451
DENHAM COURT	Service Station and Caravan Park Denham Court	505 Campbelltown ROAD	Service Station	Under assessment	-33.98208395	150.8459471
DENILIQUIN	Shell Coles Express Service Station	336 Victoria STREET	Service Station	Contamination formerly regulated under the CLM Act	-35.52373613	144.9807345
DENILIQUIN	Landmark Fertiliser Storage Facility	99-101 Davidson STREET	Chemical Industry	Regulation under CLM Act not required	-35.52534735	144.975142
DENILIQUIN	Former Deniliquin Caltex Depot	116-118 Hardinge (Cnr Wood St) STREET	Service Station	Regulation under CLM Act not required	-35.53196985	144.9544597
DENILIQUIN	BP Depot (Reliance Petroleum)	125 - 127 Hardinge STREET	Service Station	Regulation under CLM Act not required	-35.53222124	144.9517397
DENILIQUIN	Former Shell Depot	143-147 Napier STREET	Other Petroleum	Regulation under CLM Act not required	-35.5342355	144.953169
DENILIQUIN	Former Deniliquin Gasworks	365 and 369 George and 380 and 386 Charlotte STREET	Gasworks	Under assessment	-35.52663248	144.9634981
DENMAN	Former Industrial Site	10 Fontana WAY	Metal Industry	Regulation under CLM Act not required	-32.37945456	150.6868239
DENMAN	Former Industrial Site	9 Fontana WAY	Metal Industry	Regulation under CLM Act not required	-32.37911159	150.6869866
DOYALSON	Part Lot 3 DP 259306	Off David STREET	Other Industry	Regulation under CLM Act not required	-33.20436131	151.5232558
DOYALSON	Munmorah Colliery	Scenic DRIVE	Other Industry	Regulation under CLM Act not required	-33.21297737	151.5416882
DOYALSON	Munmorah Power Station	(Central Coast Highway) Scenic DRIVE	Unclassified	Regulation under CLM Act not required	-33.20678347	151.540795
DOYALSON	Mannering Colliery (formerly Wyee)	Rutleys ROAD	Other Industry	Regulation under CLM Act not required	-33.17179576	151.5419248
DOYALSON NORTH	Caltex Service Station	235 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.18501024	151.5526114

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
DOYALSON NORTH	Shell Coles Express Service Station	260-270 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.18636608	151.5482399
DRUMMOYNE	Coles Express Service Station Drummoyne (Eastbound)	36-46 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.85576628	151.1593519
DRUMMOYNE	Former Dry Cleaners	225 Victoria ROAD	Chemical Industry	Regulation under CLM Act not required	-33.8507152	151.1537113
DRUMMOYNE	Coles Express Service Station Drummoyne South (Westbound)	39-45 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.85606575	151.1589061
DRUMMOYNE	Caltex Service Station	191-195 Lyons ROAD	Service Station	Regulation under CLM Act not required	-33.85699216	151.1460356
DUBBO	Caltex Service Station, Dubbo	Cnr Brisbane Street and Cobra STREET	Service Station	Contamination currently regulated under CLM Act	-32.25322183	148.603164
DUBBO	Former Ambulance Station	165 Brisbane STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-32.24850755	148.6031749
DUBBO	BP Reliance Petroleum Service Station (Former Mobil Depot)	107 Erskine STREET	Other Petroleum	Regulation under CLM Act not required	-32.24441287	148.6111704
DUBBO	Dubbo Police Station	143 Brisbane STREET	Other Petroleum	Regulation under CLM Act not required	-32.24652288	148.6034702
DUBBO	Shell Coles Express Service Station	131-133 Cobra STREET	Service Station	Regulation under CLM Act not required	-32.25511317	148.6126147
DUBBO	Shell Coles Express Service Station	45-49 Whylandra STREET	Service Station	Regulation under CLM Act not required	-32.2474598	148.5932769
DUBBO	Former Mobil depot	40-44 Morgan STREET	Other Petroleum	Regulation under CLM Act not required	-32.23912277	148.6182711
DUBBO	Caltex Service Station, Dubbo	60 Windsor PARADE	Service Station	Regulation under CLM Act not required	-32.25459322	148.6318
DUBBO	BP-Branded Service Station Dubbo West	51-63 Whylandra STREET	Service Station	Regulation under CLM Act not required	-32.24827657	148.5927084
DUBBO	Lowes Petroleum (BP-Branded) Depot, Dubbo	105 Erskine STREET	Service Station	Regulation under CLM Act not required	-32.24423247	148.6101676
DUBBO	Inland Petroleum (Former Shell) Depot	109 Erskine STREET	Other Petroleum	Regulation under CLM Act not required	-32.24470512	148.6124108
DUBBO	Former Caltex Depot	Phillip (corner Fitzroy) STREET	Service Station	Regulation under CLM Act not required	-32.24534863	148.6150144
DUBBO	Caltex Service Station	119 Bourke STREET	Service Station	Regulation under CLM Act not required	-32.24336464	148.6091931
DUBBO	United (former Volume Plus) Service Station	219-223 Cobra STREET	Service Station	Regulation under CLM Act not required	-32.2565155	148.6228586
DULWICH HILL	Former Tyre Recapping	115-117 Constitution ROAD	Other Industry	Regulation under CLM Act not required	-33.90300876	151.1387724
DULWICH HILL	Denison Road Playground	194 Denison ROAD	Landfill	Regulation under CLM Act not required	-33.90121956	151.1404637
DUNEDOO	Former Shell Depot Dunedoo	Cnr Bolaro and Redbank STREET	Other Petroleum	Regulation under CLM Act not required	-32.01565761	149.3922418
DUNGOG	Lot 54 Common Rd	54 Common ROAD	Unclassified	Regulation under CLM Act not required	-32.39490989	151.739821
DUNGOG	Former HWC Maintenance Depot for Civil Engineering Works	86 Abelard STREET	Other Industry	Under assessment	-32.40429396	151.7514073

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
DUNMORE	Equestrian Centre	71 Fig Hill LANE	Unclassified	Regulation under CLM Act not required	-34.62313393	150.8421544
DURAL	Caltex Dural Service Station	917-923 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.68312075	151.0287519
DURAL	BP Dural Service Station	580 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69569985	151.0283357
DURAL	Caltex Service Station	530 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69348472	151.0202716
DURAL	Woolworths Service Station	532 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69348472	151.0202716
EAGLE VALE	BP Service Station	Corner Eagle Vale Drive and Gould ROAD	Service Station	Regulation under CLM Act not required	-34.03128043	150.816363
EARLWOOD	RTA Land	3 Jackson PLACE	Unclassified	Contamination currently regulated under CLM Act	-33.9272087	151.1432854
EARLWOOD	Wolli Creek Aqueduct	Unwin STREET	Unclassified	Regulation under CLM Act not required	-33.92788788	151.1480807
EAST BALLINA	Caltex East Ballina Service Station	34 Links AVENUE	Service Station	Regulation under CLM Act not required	-28.85009113	153.5829246
EAST GOSFORD	Mobil Service Station	44 Victoria STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.43804781	151.353303
EAST GOSFORD	Presbyterian Aged Care Facility	8-18 Enid CRESCENT	Landfill	Regulation under CLM Act not required	-33.4376675	151.3577947
EAST MAITLAND	United (Former Mobil) Service Station East Maitland	164 (also known as 250) Newcastle STREET	Service Station	Regulation under CLM Act not required	-32.75248998	151.5869338
EAST MAITLAND	Former Gasworks Site	Corner Melbourne Street and Brisbane STREET	Gasworks	Regulation under CLM Act not required	-32.74939199	151.5788783
EAST MAITLAND	Caltex East Maitland Service Station	Newcastle Road, Corner William STREET	Service Station	Regulation under CLM Act not required	-32.74883712	151.5829296
EAST TAMWORTH	Caltex Service Station	350-362 Armidale ROAD	Service Station	Regulation under CLM Act not required	-31.11401974	150.9613327
EASTERN CREEK	Caltex Service Station	M4 (Eastbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.801607	150.8857989
EASTERN CREEK	Caltex Service Station M4 Motorway Westbound	M4 (Westbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.80255701	150.8829211
EASTERN CREEK	Fulton Hogan Industries (formerly Pioneer Road Services)	Honeycomb DRIVE	Other Industry	Regulation under CLM Act not required	-33.80231274	150.8288299
EASTLAKES	Former Shell Rosebery service station and adjacent land	275-279 Gardeners ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.92470279	151.2100722
EASTLAKES	Eastlakes Reserve	Evans AVENUE	Service Station	Contamination formerly regulated under the CLM Act	-33.92497291	151.2102725
EASTLAKES	Budget Petroleum Eastlakes	102 Maloney STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.93096702	151.2056606
EASTLAKES	Budget Petroleum Eastlakes	102 Maloney STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.93120382	151.2054267
EASTLAKES	73 Gardeners Road	73 Gardeners ROAD	Unclassified	Regulation under CLM Act not required	-33.92541594	151.2182856
EASTWOOD	Former Mobil Service Station Eastwood	3-5 Trelawney (Cnr Rutledge St) STREET	Service Station	Regulation under CLM Act not required	-33.79273381	151.079584

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
EDEN	Former Caltex Eden Depot	80-82 Imlay STREET	Service Station	Regulation being finalised	-37.0570984	149.9038538
EDEN	Caltex Service Station	159 Imlay STREET	Service Station	Regulation under CLM Act not required	-37.06324099	149.9044022
EDENSOR PARK	Caltex Bonnyrigg Service Station, Edensor Park	549 Elizabeth DRIVE	Service Station	Regulation under CLM Act not required	-33.88840816	150.8822609
EDENSOR PARK	7-Eleven (former Mobil) Service Station	615-621 Cowpasture Road (Cnr Elizabeth) DRIVE	Service Station	Regulation under CLM Act not required	-33.88326139	150.865591
EDGECLIFF	BP-branded (former Coles Express) Service Station	73-85A New South Head ROAD	Service Station	Regulation under CLM Act not required	-33.8769602	151.2311617
EDGEWORTH	Caltex Service Station	662 Main ROAD	Service Station	Regulation under CLM Act not required	-32.92566329	151.6278888
EDGEWORTH	Woolworths Edgeworth	738-742 Main ROAD	Service Station	Under assessment	-32.92455492	151.6202897
EMERALD BEACH	Shell Coles Express Woolgoolga Service Station	1850 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-30.16450856	153.1826673
EMERTON	7-Eleven Emerton	135-137 Popondetta ROAD	Service Station	Regulation under CLM Act not required	-33.74463908	150.8102251
EMU HEIGHTS	7-Eleven Service Station	126 Old Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.74299098	150.6547098
EMU HEIGHTS	Woolworths Service Station	132 Old Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.7429739	150.6559655
EMU PLAINS	Woolworths Service Station	283 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.75371349	150.6530165
ENGADINE	BP Service Station	1234 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.07735416	151.01121
ENGADINE	BP Branded Service Station	963 Old Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.06428454	151.0167121
ENGADINE	Former Caltex Service Station	995 Old Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.06413459	151.0155734
EPPING	7-Eleven (former Mobil) Service Station	246 Beecroft ROAD	Service Station	Regulation under CLM Act not required	-33.77073552	151.080581
ERINA	Former Frozen Food Distribution Depot	1 Aston ROAD	Other Petroleum	Contamination currently regulated under CLM Act	-33.434878	151.3845431
ERINA	Coles Express Service Station Erina	211 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43547804	151.3850522
ERINA	7-Eleven Erina	214 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43494257	151.3879511
ERINA	7-Eleven Service Station	96 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43786868	151.3729331
ERINA	Caltex Service Station	155 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43824871	151.3801096
ERMINGTON	Blue Star Ermington	700 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.808595	151.066004
ERMINGTON	Caltex Service Station	562 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81392814	151.0547543
ERSKINE PARK	Western Sydney Service Centre	25-55 Templar ROAD	Landfill	Under assessment	-33.81897822	150.7937394

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ERSKINEVILLE	Redevelopment Site (Former Industrial Park) Erskineville	36/1A Coulson STREET	Other Industry	Regulation under CLM Act not required	-33.90325501	151.1855668
ERSKINEVILLE	Department of Housing	52 John STREET	Other Industry	Regulation under CLM Act not required	-33.8982925	151.1840284
ERSKINEVILLE	RailCorp land	Coulson STREET	Other Industry	Regulation under CLM Act not required	-33.90279502	151.1846827
ERSKINEVILLE	Lot 4/1A Coulson Street	Coulson STREET	Other Industry	Under assessment	-33.90316549	151.1867963
ERSKINEVILLE	Area B - Public Domain The Broadway	1A Coulson STREET	Other Petroleum	Under assessment	-33.90479634	151.1871194
EUABALONG WEST	BP Euabalong West Depot (Reliance Petroleum)	12 Illewong STREET	Other Petroleum	Regulation under CLM Act not required	-33.05720426	146.3946386
EVANS HEAD	Evans Head Aerodrome	Memorial Airport DRIVE	Other Industry	Regulation under CLM Act not required	-29.10389976	153.4216791
EVANS HEAD	Bundjalung National Park	The Gap ROAD	Unclassified	Regulation under CLM Act not required	-29.24433977	153.3626472
EVANS HEAD	Evans Head Residential subdivision	Woodburn, Carrabeen Streets and Tuckeroo CRESCENT	Unclassified	Regulation under CLM Act not required	-29.1080969	153.4243577
EVELEIGH	Macdonaldtown Triangle	Burren STREET	Gasworks	Contamination being managed via the planning process (EP&A Act)	-33.89803492	151.186059
EVELEIGH	Australian Technology Park	Henderson ROAD	Other Industry	Regulation under CLM Act not required	-33.89634136	151.1944915
FAIRFIELD	Endeavour Energy Fairfield Zone Substation	22 Hedges STREET	Other Industry	Regulation under CLM Act not required	-33.86133019	150.9555899
FAIRFIELD EAST	Speedway-Branded Service Station Fairfield	251 The Horsley DRIVE	Service Station	Regulation under CLM Act not required	-33.8711661	150.9630077
FAIRFIELD HEIGHTS	7-Eleven Fairfield Heights	234 Hamilton (Cnr The Boulevarde) ROAD	Service Station	Regulation under CLM Act not required	-33.87208474	150.9373134
FAIRY MEADOW	Caltex Fuel Depot and adjoining land	46 Montague STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.40050499	150.8953125
FAIRY MEADOW	Woolworths Petrol Service Station	49 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.39399705	150.8925369
FAIRY MEADOW	Deynal (Seeman)	51-59 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.39437085	150.8924666
FARLEY	Farley Wastewater Treatment Works	Owlpen LANE	Other Industry	Regulation under CLM Act not required	-32.74431314	151.5194217
FASSIFERN	Newstan Colliery	Fassifern ROAD	Other Industry	Regulation under CLM Act not required	-32.97942521	151.5660046
FASSIFERN	Former Arsenic Smelter	Fassifern ROAD	Other Industry	Regulation under CLM Act not required	-32.99649819	151.5618283
FEDERAL	Federal General Store	3-6 Federal DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-28.65190728	153.4552976
FERN BAY	Former service station	37 Fullerton (1006 Nelson Bay Road) STREET	Service Station	Regulation under CLM Act not required	-32.87245004	151.7939904
FIVE DOCK	7-Eleven Five Dock Service Station	231-235 Great North ROAD	Service Station	Regulation under CLM Act not required	-33.86488376	151.130002
FIVE DOCK	Caltex Five Dock Service Station	47 Ramsay Road, corner Fairlight STREET	Service Station	Regulation under CLM Act not required	-33.87002804	151.1301835

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
FORBES	Former Gasworks	24-26 Union STREET	Gasworks	Contamination currently regulated under CLM Act	-33.37752036	148.0090064
FORBES	BP (Former Mobil) Depot Forbes	3-15 Union STREET	Other Petroleum	Regulation under CLM Act not required	-33.37751977	148.0101422
FORBES	Woolworths (Former Save on Fuel) Service Station	26 Dowling STREET	Service Station	Regulation under CLM Act not required	-33.38148764	148.0109845
FORBES	BP Service Station Forbes	29 Dowling STREET	Other Petroleum	Regulation under CLM Act not required	-33.38121776	148.0100351
FORBES	Former Shell Depot	Stephen STREET	Other Petroleum	Regulation under CLM Act not required	-33.37704755	148.0103001
FORBES	Caltex Service Station Forbes	Parkes ROAD	Service Station	Regulation under CLM Act not required	-33.36333714	148.0223727
FORESTVILLE	BP Service Station	632 Warringah ROAD	Service Station	Contamination currently regulated under CLM Act	-33.75997969	151.2142944
FORESTVILLE	Shell Service Station	667 Warringah ROAD	Service Station	Contamination currently regulated under CLM Act	-33.76035336	151.2184929
FORRESTERS BEACH	Caltex Service Station	The Entrance Rd Cnr Bellevue ROAD	Service Station	Regulation under CLM Act not required	-33.40057818	151.4687631
FORSTER	Caltex Service Station	16-18 Lake STREET	Service Station	Regulation under CLM Act not required	-32.18306967	152.5162492
FORSTER	Shell (Kneebone's) Service Station	2-6 The Lakes WAY	Service Station	Regulation under CLM Act not required	-32.1946108	152.5145662
FORSTER	Enhance (Former Mobil) Service Station	86-88 Macintosh STREET	Service Station	Regulation under CLM Act not required	-32.19079468	152.5154847
FREDERICKTON	Former Service station	2-4 Great North ROAD	Service Station	Regulation under CLM Act not required	-31.03513998	152.8794105
FRENCHS FOREST	Former BP Service Station	Russell AVENUE	Service Station	Regulation under CLM Act not required	-33.75018093	151.2245005
FRENCHS FOREST	Former 7-Eleven / Mobil Beacon Hill Service Station, Frenchs Forest	312 Warringah ROAD	Service Station	Regulation under CLM Act not required	-33.75129647	151.2469656
FRESHWATER	Prime (former Mobil) Service Station Freshwater	117 Harbord ROAD	Service Station	Regulation under CLM Act not required	-33.77286748	151.2794354
GEORGETOWN	Former Caltex Service Station	4 Georgetown ROAD	Service Station	Regulation under CLM Act not required	-32.91121105	151.7319693
GERRINGONG	Gerringong Cooperative	18 Belinda STREET	Other Petroleum	Regulation under CLM Act not required	-34.74518835	150.8181054
GILGANDRA	United (Former Mobil) Service Station	13 Castlereagh STREET	Service Station	Regulation under CLM Act not required	-31.71715641	148.6581574
GILGANDRA	Former Mobil Depot	2 Federation STREET	Other Petroleum	Regulation under CLM Act not required	-31.70937362	148.6522102
GILGANDRA	Former Mobil Depot	20 Federation STREET	Other Petroleum	Regulation under CLM Act not required	-31.70771744	148.6514198
GILGANDRA	Caltex Service Station Gilgandra	6425 Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-31.72545524	148.65281
GILLENBAH	Caltex (Former Mobil) Narrandera Service Station	16321 - 16335 Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-34.76124219	146.5398604
GIRRAWEEN	Industrial Galvanizers site	20-22 Amax AVENUE	Metal Industry	Contamination currently regulated under POEO Act	-33.80500693	150.9396743

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
GIRRAWEEN	Caltex Pendle Hill Service Station Girraween	602 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.80827518	150.9421511
GLADESVILLE	Caltex Service Station	287-295 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8285374	151.1268639
GLADESVILLE	Road Reserve	Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.81603924	151.1355085
GLADESVILLE	Caltex Service Station	116 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.83575319	151.1277863
GLADESVILLE	Glade View Business Park	436-484 Victoria ROAD	Other Industry	Under assessment	-33.82382382	151.1223941
GLEBE	The Hill and Jubilee Embankment	12 Maxwell ROAD	Other Industry	Regulation under CLM Act not required	-33.87573032	151.1776027
GLEN INNES	Ambulance Station	106 Bourke STREET	Unclassified	Regulation under CLM Act not required	-29.73805854	151.7313138
GLEN INNES	Telstra Depot Glen Innes	126 Lambeth STREET	Unclassified	Regulation under CLM Act not required	-29.73565341	151.7278271
GLEN INNES	Caltex Glen Innes Service Station	Meade Street, corner Church STREET	Service Station	Regulation under CLM Act not required	-29.73699014	151.7379335
GLEN INNES	Former Shell Depot	Lambeth STREET	Other Petroleum	Regulation under CLM Act not required	-29.7376309	151.7276309
GLEN INNES	Former Caltex Depot, Glen Innes	Lot 1 DP785636 Lambeth STREET	Other Petroleum	Regulation under CLM Act not required	-29.73525485	151.7279167
GLEN INNES	Council-owned Laneway	Lot 2 Lang STREET	Gasworks	Regulation under CLM Act not required	-29.74385432	151.7323049
GLEN INNES	Caltex Service Station	Cnr Taylor Street & Church STREET	Service Station	Regulation under CLM Act not required	-29.73289036	151.739653
GLEN INNES	Caltex Glen Innes Paddock	9979 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-29.75608853	151.7344106
GLENBROOK	Caltex Service Station Glenbrook	78 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76545234	150.6215447
GLENDALE	Coles Express Glendale	593 Main ROAD	Service Station	Regulation under CLM Act not required	-32.92709242	151.637946
GLENDALE	Former Service Station	334-342 Lake ROAD	Unclassified	Regulation under CLM Act not required	-32.92775076	151.6433463
GLENDALE	Woolworths Service Station	Stockland DRIVE	Service Station	Regulation under CLM Act not required	-32.93250548	151.6404097
GLENDALE	Cardiff Settlement Pond	Off Main ROAD	Unclassified	Under assessment	-32.93411399	151.6483695
GLENDENNING	7-Eleven Plumpton Service Station Glendenning	1 Dublin (Cnr Richmond Rd) STREET	Service Station	Regulation under CLM Act not required	-33.73988232	150.8603323
GLENORIE	Caltex Glenorie Service Station	912 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.60550946	151.0126731
GLENTHORNE	Caltex Taree Service Station	Manning River DRIVE	Service Station	Regulation under CLM Act not required	-31.94415251	152.4703511
GLOUCESTER	Caltex Service Station	141 Church STREET	Service Station	Regulation under CLM Act not required	-32.01222514	151.9579521
GOOLMANGAR	Goolmangar General Store	851 Nimbin ROAD	Service Station	Under assessment	-28.74694441	153.225401

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
GOONELLABAH	Invercauld Road Cattle Dip	161 Invercauld ROAD	Cattle Dip	Contamination currently regulated under CLM Act	-28.8308417	153.3098878
GOSFORD	United (former Mobil) Depot	Corner Merinee Road and Bowen CRESCENT	Other Petroleum	Regulation under CLM Act not required	-33.41523225	151.3257069
GOULBURN	Former Goulburn Gasworks	1 Blackshaw ROAD	Gasworks	Contamination currently regulated under CLM Act	-34.75237525	149.725507
GOULBURN	Mobil Service Station	129 Lagoon STREET	Service Station	Contamination currently regulated under CLM Act	-34.74618793	149.7330484
GOULBURN	Goulburn Tannery	13 Gibson STREET	Other Industry	Regulation under CLM Act not required	-34.73756525	149.72059
GOULBURN	Caltex Depot	13 Sloane STREET	Other Petroleum	Regulation under CLM Act not required	-34.77423152	149.7088626
GOULBURN	Mobil Depot	23 Braidwood ROAD	Other Petroleum	Regulation under CLM Act not required	-34.76217302	149.7170897
GOULBURN	Caltex Service Station	72-74 Clinton STREET	Service Station	Regulation under CLM Act not required	-34.75728157	149.7135824
GOULBURN	Caltex Service Station	68 Goldsmith STREET	Service Station	Regulation under CLM Act not required	-34.75054432	149.7192098
GOULBURN	Former Shell Autoport Service Station	Corner Bruce Street and Lagoon STREET	Service Station	Regulation under CLM Act not required	-34.74807885	149.7266246
GOULBURN	Coles Express Service Station	90 Cowper (Corner Clinton Street) STREET	Service Station	Regulation under CLM Act not required	-34.75566648	149.7107831
GOULBURN	Caltex Service Station	315 Auburn, corner Bradley STREET	Service Station	Regulation under CLM Act not required	-34.74942293	149.7232692
GOULBURN	Former Mobil Service Station Goulburn	422-426 Auburn STREET	Service Station	Regulation under CLM Act not required	-34.74869879	149.7229392
GRAFTON	Former General Store and Service Station Grafton	161 Turf STREET	Service Station	Regulation under CLM Act not required	-29.67412811	152.9336609
GRAFTON	Lowes Petroleum (BP-Branded) Depot, Grafton	13 Orara STREET	Other Petroleum	Regulation under CLM Act not required	-29.67016421	152.918161
GRAFTON	Former Shell Depot	2 Milton STREET	Other Petroleum	Regulation under CLM Act not required	-29.67723019	152.9205374
GRAFTON	Grafton Works Depot	26-28 Bruce STREET	Other Petroleum	Regulation under CLM Act not required	-29.67975507	152.9249357
GRAFTON	Former BP Service Station (Reliance Petroleum)	202 Queen STREET	Service Station	Regulation under CLM Act not required	-29.67645469	152.9423977
GRAFTON	Woolworths Petrol	75 - 77 Fitzroy Street Cnr of Duke STREET	Service Station	Regulation under CLM Act not required	-29.69221713	152.9343562
GRAFTON	Caltex Service Station	Corner Villiers St and Fitzroy STREET	Service Station	Regulation under CLM Act not required	-29.69296308	152.9366431
GRAFTON	BP Service Station (Reliance Petroleum)	14 Villiers (Cnr Fitzroy) STREET	Service Station	Regulation under CLM Act not required	-29.69345456	152.9373123
GRAFTON	Former Mobil Depot Grafton	2-16 Bruce STREET	Other Petroleum	Regulation under CLM Act not required	-29.68093591	152.9231289
GRAFTON	Caltex Service Station	179 Prince STREET	Service Station	Regulation under CLM Act not required	-29.68600117	152.9371093
GRANVILLE	Australand	15-17 Berry STREET	Other Industry	Contamination being managed via the planning process (EP&A Act)	-33.83600073	151.0211988

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
GRANVILLE	Commercial Property	2B Factory STREET	Other Industry	Ongoing maintenance required to manage residual contamination	-33.84173556	151.0165687
GRANVILLE	Caltex Service Station	144 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.83039605	151.0109216
GRANVILLE	Old Granville Depot	23 Elizabeth STREET	Unclassified	Regulation under CLM Act not required	-33.83765925	151.008528
GRANVILLE	7-Eleven Service Station	154-160 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.83022685	151.0101322
GRANVILLE	Woolworths Granville	158 Clyde STREET	Service Station	Under assessment	-33.84623338	151.0124885
GRANVILLE	A'Becketts Creek	Albert STREET	Unclassified	Under assessment	-33.82735397	151.0113643
GREENACRE	Former Plating Works	12 Claremont STREET	Unclassified	Regulation under CLM Act not required	-33.89992254	151.0386128
GREENACRE	7-Eleven (former Mobil) Service Station	301-305 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90524488	151.0419971
GREENACRE	Caltex Service Station	87 - 91 Roberts ROAD	Service Station	Regulation under CLM Act not required	-33.90461089	151.0648581
GREENWICH	Gore Creek Reserve - Drainage Line	St Vincents ROAD	Other Industry	Regulation under CLM Act not required	-33.82888693	151.1819101
GRENFELL	Former SRA Fuel Depot	Grafton STREET	Other Petroleum	Regulation under CLM Act not required	-33.89351237	148.1560188
GRENFELL	Grenfell Gasworks	Corner Gooloogong Road & Bourke STREET	Gasworks	Regulation under CLM Act not required	-33.89006016	148.1615443
GRETA	Coles Express Greta	122 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.67656357	151.3872818
GRETA	redevelopment site	112-114 High STREET	Other Industry	Regulation under CLM Act not required	-32.67706709	151.3876682
GRETA	Former landfill	Hollingshed ROAD	Landfill	Regulation under CLM Act not required	-32.66705287	151.3923474
GREYSTANES	Metro Branded (former Mobil) Service Station	73 Ettalong ROAD	Service Station	Regulation under CLM Act not required	-33.81822648	150.9513946
GRIFFITH	Liberty Depot (former Shell CVRO) Griffith	6-10 Mackay AVENUE	Other Petroleum	Regulation under CLM Act not required	-34.2910045	146.063824
GRIFFITH	Former Murrumbidgee Irrigation Depot	55-77 Banna AVENUE	Other Industry	Regulation under CLM Act not required	-34.28858242	146.0567509
GRIFFITH	Mobil Depot - Griffith Airport	Off Rememberance DRIVE	Other Petroleum	Regulation under CLM Act not required	-34.25618872	146.0620449
GRIFFITH	Former Ampol Depot	32-34 Mackay AVENUE	Other Petroleum	Regulation under CLM Act not required	-34.2933331	146.0679503
GRIFFITH	Caltex Service Station and Depot	2-4 Mackay AVENUE	Service Station	Regulation under CLM Act not required	-34.2908766	146.0630815
GRIFFITH	Former Landmark Fertiliser Storage Facility	2-8 Jensen ROAD	Chemical Industry	Regulation under CLM Act not required	-34.29365599	146.0536413
GRIFFITH	Belford Petroleum (former Mobil) Depot	30 Banna AVENUE	Service Station	Regulation under CLM Act not required	-34.29042827	146.0595497
GRIFFITH	Former BP Service Station (Reliance Petroleum)	81 Banna AVENUE	Service Station	Regulation under CLM Act not required	-34.28851251	146.0540815

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
GUILDFORD	7-Eleven Service Station Guildford West	176 Fowler ROAD	Service Station	Regulation under CLM Act not required	-33.85149493	150.9722491
GUILDFORD	Enhance Service Station Guildford	2 Rawson ROAD	Service Station	Regulation under CLM Act not required	-33.86366193	151.0088768
GULGONG	Lowes Petroleum (former BP) Depot Gulgong	6 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-32.35950625	149.5461499
GULGONG	The Oval Site	Queen STREET	Unclassified	Regulation under CLM Act not required	-32.36169815	149.531075
GULMARRAD	BP Service Station Maclean	3976 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-29.48537407	153.2004311
GUMLY GUMLY	Caltex Service Station	3723 Sturt HIGHWAY	Service Station	Regulation under CLM Act not required	-35.13590309	147.4424551
GUMLY GUMLY	Brick Kiln Reserve	Eunony Bridge ROAD	Landfill	Regulation under CLM Act not required	-35.12098411	147.4196309
GUNDAGAI	Former Mobil Depot	98 Mount STREET	Other Petroleum	Regulation under CLM Act not required	-35.08206783	148.096221
GUNNEDAH	BP Service Station	Corner Conadilly Street & Henry STREET	Service Station	Contamination currently regulated under CLM Act	-30.98116266	150.2583066
GUNNEDAH	Mobil Service Station	341 Conadilly STREET	Service Station	Contamination currently regulated under CLM Act	-30.9807394	150.2578428
GUNNEDAH	Adjacent to Service Station	Intersection of Henry Street and Conadilly STREET	Service Station	Contamination currently regulated under CLM Act	-30.98072588	150.2582802
GUNNEDAH	Former Caltex Depot	61 Railway AVENUE	Other Petroleum	Contamination formerly regulated under the CLM Act	-30.97953242	150.2494457
GUNNEDAH	Caltex Service Station	21 Abbott STREET	Service Station	Regulation under CLM Act not required	-30.98021001	150.2561856
GUNNEDAH	Former Shell Depot Gunnedah	85-89 Barber STREET	Other Petroleum	Regulation under CLM Act not required	-30.97949284	150.2507401
GUNNEDAH	Mobil Gunnedah Depot	16-24 Wentworth STREET	Other Petroleum	Regulation under CLM Act not required	-30.98428725	150.260609
GUNNEDAH	Property NSW Site	35-37 Abbott STREET	Other Petroleum	Regulation under CLM Act not required	-30.9789841	150.25737
GUNNEDAH	Former Telstra Line Depot	81 Barber STREET	Other Petroleum	Regulation under CLM Act not required	-30.97933809	150.2503121
GUNNING	Gunning Motors	56 Yass STREET	Service Station	Regulation under CLM Act not required	-34.78159326	149.2684791
GUYRA	Caltex-branded Service Station	4352 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-30.20601937	151.6757291
GUYRA	StateRail land leased to Incitec	Starr ROAD	Other Industry	Regulation under CLM Act not required	-30.23157011	151.6707135
GUYRA	Guyra Fourways Service Centre	87-89 Bradley STREET	Service Station	Under assessment	-30.24580085	151.6701156
GWANDALAN	Metro Petroleum Gwandalan (Formerly Gwandalan Auto Care)	47 Orana ROAD	Service Station	Regulation under CLM Act not required	-33.13632941	151.5813396
GWANDALAN	Former Gwandalan Landfill	Kanangra DRIVE	Landfill	Regulation under CLM Act not required	-33.17497722	151.5917107
GYMEA	Coles Express Kirrawee	470 Princes (Cnr The Boulevarde) HIGHWAY	Service Station	Regulation being finalised	-34.02735302	151.0845079

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
GYMEA	7-Eleven (former Mobil) Gymea Service Station	110 Gymea Bay ROAD	Service Station	Regulation under CLM Act not required	-34.03745848	151.0848547
GYMEA	Former Shell Service Station Gymea	Gymea Bay ROAD	Service Station	Regulation under CLM Act not required	-34.04129676	151.0841328
HABERFIELD	7-Eleven Haberfield	25-35 Parramatta ROAD	Service Station	Contamination currently regulated under CLM Act	-33.887956	151.142868
HALEKULANI	Former Halekulani Landfill	Macleay DRIVE	Landfill	Regulation under CLM Act not required	-33.21446301	151.5527625
HAMILTON	Hamilton Gasworks	Clyde STREET	Gasworks	Contamination currently regulated under CLM Act	-32.91362741	151.7406241
HAMILTON	Taxi Services	116 Tudor STREET	Service Station	Contamination formerly regulated under the CLM Act	-32.92351606	151.7454742
HAMILTON	SRA Land	10 Maitland ROAD	Unclassified	Regulation under CLM Act not required	-32.91994358	151.7512417
HAMILTON	Caltex Hamilton	59-63 Tudor STREET	Service Station	Regulation under CLM Act not required	-32.92498593	151.7509313
HAMILTON	Newcastle Toyota	65 Tudor STREET	Other Petroleum	Regulation under CLM Act not required	-32.925171	151.7504048
HAMILTON	Hamilton Bus Depot	Cnr Denison Street and Gordon AVENUE	Other Petroleum	Regulation under CLM Act not required	-32.92542648	151.7512512
HAMILTON NORTH	Shell Newcastle Terminal	5 Chatham STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.91630469	151.7408712
HAMILTON NORTH	Black and Decker	56 Clyde STREET	Metal Industry	Contamination currently regulated under CLM Act	-32.91080413	151.7358236
HAMILTON NORTH	ELMA	54 Clyde STREET	Other Industry	Contamination currently regulated under CLM Act	-32.91145768	151.7367691
HARBORD	Former Dry Cleaners	121 Wyndora AVENUE	Other Industry	Regulation under CLM Act not required	-33.77425321	151.2821553
HARDEN	SRA Site	51 Whitton LANE	Unclassified	Contamination formerly regulated under the CLM Act	-34.55396035	148.3713349
HARDEN	SRA Site	31 Aurvill ROAD	Unclassified	Regulation under CLM Act not required	-34.54998656	148.3689577
HARRIS PARK	Dalley Street Reserve	2A Dalley STREET	Other Industry	Regulation under CLM Act not required	-33.82749118	151.0097545
HARTLEY VALE	Former Shale Oil Refinery	Lot 52 Hartley Vale ROAD	Unclassified	Contamination currently regulated under CLM Act	-33.52925119	150.24216
HASTINGS POINT	Coles Express Hastings Point	99 Tweed Coast ROAD	Service Station	Regulation under CLM Act not required	-28.36914103	153.5725676
HAY	SRA Land	443 Murray STREET	Other Industry	Contamination formerly regulated under the CLM Act	-34.49966753	144.8410778
HAY	SRA Land	429, 431, 435, 437 & 439 Murray STREET	Other Industry	Regulation under CLM Act not required	-34.49965611	144.840976
HAY	Former Shell Hay Depot	391 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-34.50028195	144.8463999
HAY	Former Mobil Depot Hay	397-399 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-34.50019184	144.8456578
HAY SOUTH	Caltex Service Station	429-431 Moama STREET	Service Station	Regulation under CLM Act not required	-34.52001427	144.8380121

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HAZELBROOK	Caltex Service Station Hazelbrook	198 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.72106175	150.4520976
HEATHCOTE	Caltex Service Station	1344 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.08841066	151.0072048
HEATHCOTE	Caltex Service Station	1403 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.09059834	151.003752
HEATHCOTE	Shell Coles Express Service Station	1355 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.08780042	151.0069741
HEATHERBRAE	Bogas (Former Caltex) Service Station	3 Speedy Lock LANE	Service Station	Regulation under CLM Act not required	-32.78057822	151.7372135
HEATHERBRAE	Shell Coles Express Motto Farm Service Station	2137 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-32.79835449	151.7176284
HEXHAM	Forgacs Site	Sparke STREET	Chemical Industry	Contamination currently regulated under CLM Act	-32.85464558	151.6988053
HEXHAM	Industrial Galvanizers	312 Pacific HIGHWAY	Metal Industry	Contamination currently regulated under POEO Act	-32.83457186	151.6884941
HEXHAM	QR National - Hexham Precinct	179 & 3/67 Maitland ROAD	Other Industry	Regulation under CLM Act not required	-32.83474038	151.6821895
HEXHAM	Caltex Diesel Stop	360 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.82844873	151.6851063
HEXHAM	Cummins Newcastle Facility Hexham	21 Galleghan STREET	Other Industry	Regulation under CLM Act not required	-32.83186739	151.686709
HEXHAM	BP Service Station (Reliance Petroleum)	Corner Pacific Highway and Old Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.82756403	151.6846929
HEXHAM	Caltex-Bogas Warehouse	239 Old Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.82899942	151.6861849
HILLSTON	Former BP Depot Hillston	141-143 Cowper STREET	Other Petroleum	Regulation under CLM Act not required	-33.48823546	145.5381623
HOLBROOK	Caltex Truckstop	Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-35.71332625	147.3207237
HOMEBUSH	Ausgrid Mason Park Substation	1 Underwood ROAD	Other Industry	Regulation under CLM Act not required	-33.85674677	151.0747044
HOMEBUSH BAY	SUEZ Waste Recycling Centre (WRC) and Cleanaway Liquid	Corner Pondage Link and Hill ROAD	Landfill	Regulation under CLM Act not required	-33.84359299	151.0593656
HOMEBUSH WEST	Caltex Service Station Homebush West	334-336 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.8581543	151.0681261
HOMEBUSH WEST	Former Ford Landfill	22 Mandemar AVENUE	Landfill	Under assessment	-33.86180526	151.0635664
HORNSBY	Coles Express Hornsby	194- 206 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.7071993	151.0991452
HORNSBY	Midas Car Care Centre Hornsby	2A Linda STREET	Unclassified	Regulation under CLM Act not required	-33.70052215	151.1004786
HORNSBY	Hornsby Train Maintenance Centre	1B Stephen STREET	Other Industry	Regulation under CLM Act not required	-33.69342449	151.1035295
HOXTON PARK	Endeavour Energy Hoxton Park	490 Hoxton Park ROAD	Other Industry	Regulation under CLM Act not required	-33.92766437	150.8689069
HUNTERS HILL	Foreshore Land	Rear of 7, 9 & 11 Nelson PARADE	Unclassified	Contamination currently regulated under CLM Act	-33.84248362	151.1649249

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HUNTERS HILL	Coles Express Hunters Hill	4 Ryde ROAD	Service Station	Regulation under CLM Act not required	-33.8317985	151.141655
HUNTERS HILL	7, 9 and 11 Nelson Parade Hunters Hill	7, 9 and 11 Nelson PARADE	Other Industry	Regulation under CLM Act not required	-33.84218911	151.164968
HURLSTONE PARK	Former Speedway Petroleum Service Station	610 - 618 New Canterbury ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.90541228	151.1322009
HURLSTONE PARK	Former Telstra Depot	82 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.90803171	151.1258121
HURLSTONE PARK	7-Eleven Hurlstone Park	670 New Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.90510388	151.1299825
HURSTVILLE GROVE	Moore Reserve	Morshead DRIVE	Landfill	Contamination currently regulated under CLM Act	-33.97920603	151.0873578
INVERELL	Caltex Service Station	141 Otho STREET	Service Station	Regulation being finalised	-29.77819403	151.1145699
INVERELL	Former Shell Depot	25 Edward STREET	Other Petroleum	Regulation under CLM Act not required	-29.76151684	151.1182033
INVERELL	Former Service Station	20 Oliver STREET	Service Station	Regulation under CLM Act not required	-29.77229743	151.1152692
INVERELL	Former Caltex Depot Inverell	4 Edward STREET	Service Station	Regulation under CLM Act not required	-29.76123104	151.1147983
INVERELL	Former Mobil Inverell Depot	29-33 Edward STREET	Other Petroleum	Regulation under CLM Act not required	-29.76135322	151.1171412
INVERELL	Caltex Service Station	55-59 Ring STREET	Service Station	Regulation under CLM Act not required	-29.76204512	151.1141737
INVERELL	Former Mobil Service Station	Corner Otho Street and Henderson STREET	Service Station	Regulation under CLM Act not required	-29.7786926	151.1149921
ISLINGTON	Caltex Service Station	240 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.91138644	151.7457701
ISLINGTON	Shell Pipeline Easement (vacant land)	24 Fern STREET	Other Petroleum	Regulation under CLM Act not required	-32.91706254	151.7473809
JAMISONTOWN	7-Eleven Service Station	92 Mulgoa ROAD	Service Station	Contamination currently regulated under CLM Act	-33.7667231	150.6796488
JAMISONTOWN	BP Service Station Jamisontown	124 - 128 Mulgoa ROAD	Service Station	Regulation under CLM Act not required	-33.76978323	150.6764977
JAMISONTOWN	Former Caltex Jamisontown	229-231 Mulgoa ROAD	Service Station	Regulation under CLM Act not required	-33.76661447	150.6784735
JANNALI	Former Mobil Service Station	121 Georges River ROAD	Service Station	Regulation under CLM Act not required	-34.01614613	151.0681921
JANNALI	Former IGA	541 Box ROAD	Other Industry	Under assessment	-34.01602134	151.0660384
JENNINGS	Jennings Former Arsenic Poison Factory	Duke Street, Manor Street, and Ballandean STREET	Chemical Industry	Contamination currently regulated under CLM Act	-28.92833023	151.9301552
JESMOND	Caltex Service Station	27 Bluegum ROAD	Service Station	Regulation under CLM Act not required	-32.9029287	151.691164
JINDABYNE	BP Service Station (Reliance Petroleum)	8 Kosciuszko ROAD	Service Station	Regulation under CLM Act not required	-36.41478692	148.6178882
JINDABYNE	Caltex Service Station	50 Kosciuszko ROAD	Service Station	Regulation under CLM Act not required	-36.41395847	148.6225113

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
JUNEE	Subdivision Proposal	5858 Gundagai ROAD	Unclassified	Regulation under CLM Act not required	-34.87783587	147.6067578
KANAHOOKA	Former Smelter Site	Kanahooka ROAD	Metal Industry	Under assessment	-34.49406369	150.8227583
KANDOS	Cement Australia Kandos Cement Works	1 Jamison STREET	Other Industry	Regulation under CLM Act not required	-32.86399912	149.9779259
KARIONG	Coles Express Kariong	6 Central Coast HIGHWAY	Service Station	Regulation under CLM Act not required	-33.43443192	151.2963401
KARIONG	Caltex Service Station	Lot 2 Langford DRIVE	Service Station	Regulation under CLM Act not required	-33.43934827	151.2935447
KARUAH	BP Roadhouse Karuah	403 Tarean ROAD	Service Station	Regulation under CLM Act not required	-32.65371781	151.9629963
KATOOMBA	Former Katoomba/Leura Gasworks	Megalong STREET	Gasworks	Contamination currently regulated under CLM Act	-33.71318559	150.3187284
KATOOMBA	Aldi Stores	201 Katoomba STREET	Service Station	Regulation under CLM Act not required	-33.71756625	150.3101649
KELLYVILLE	Caltex Service Station	3-5 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.71436125	150.9602175
KELLYVILLE	BP Service Station Kellyville	19-23 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.71280997	150.9590756
KELSO	Caltex Service Station Kelso	19 Sydney ROAD	Service Station	Regulation under CLM Act not required	-33.41904247	149.6023985
KELSO	BP Service Station (Reliance Petroleum)	63 Sydney ROAD	Service Station	Regulation under CLM Act not required	-33.41925328	149.6076677
KEMBLA GRANGE	ShawCor Australia	66 West Dapto ROAD	Other Petroleum	Regulation under CLM Act not required	-34.46875328	150.8106326
KEMBLAWARRA	Griffins Bay, Lake Illawarra	Shellharbour ROAD	Landfill	Regulation under CLM Act not required	-34.49653984	150.8943776
KEMPS CREEK	Caltex-branded Service Station	1163 Mamre ROAD	Service Station	Regulation under CLM Act not required	-33.86972102	150.7966074
KEMPSEY	Kempsey Showground	19 Sea STREET	Unclassified	Contamination being managed via the planning process (EP&A Act)	-31.07334836	152.8308795
KEMPSEY	Former Shell Depot	43-51 Gladstone STREET	Other Petroleum	Regulation under CLM Act not required	-31.07500944	152.8346699
KEMPSEY	Former Mobil depot	14 Hopetoun STREET	Other Petroleum	Regulation under CLM Act not required	-31.07603107	152.8350132
KEMPSEY	Shell Coles Express Service Station Kempsey	165 Smith STREET	Service Station	Regulation under CLM Act not required	-31.07036743	152.8461571
KEMPSEY	Mobil Depot	154 Belgrave STREET	Service Station	Regulation under CLM Act not required	-31.07965043	152.8326303
KEMPSEY	Liberty (Former Mobil) Service Station	108-112 Smith STREET	Service Station	Regulation under CLM Act not required	-31.07492508	152.8431945
KENSINGTON	7-Eleven Kensington	135 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.91035885	151.2228537
KENSINGTON	Former Ampol Service Station	76-82 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.9059246	151.2242891
KENSINGTON	Footpath adjacent to 10-20 Anzac Parade	10-20 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.9032124	151.2237836

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KENSINGTON	Caltex Service Station	211-213 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.91460752	151.2251266
KENTHURST	Vacant Land	259 McCylmonts ROAD	Unclassified	Regulation under CLM Act not required	-33.61283529	150.9425303
KHANCOBAN	Khancoban Tip	Alpine WAY	Landfill	Regulation under CLM Act not required	-36.21994191	148.1542718
KIAMA	Former Gasworks	105 to 109 and 113 Shoalhaven STREET	Gasworks	Regulation under CLM Act not required	-34.67416881	150.8504143
KIAMA HEIGHTS	Former Mobil Service Station Kiama	7-9 South Kiama DRIVE	Service Station	Regulation under CLM Act not required	-34.69553931	150.8437977
KILLARA	7-Eleven Service Station (Former Mobil)	496 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.77146554	151.1606903
KILLARA	Former BP Service Station Lindfield	478 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.7719298	151.1613874
KILLARA	Former Caltex Service Station	692B-694 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.76306802	151.1550109
KILLARA	Land Adjacent to Former Service Station Site	684-684a, 690, 692 and 696 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.76312226	151.1549237
KILLARA	Killara Garage	544 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76974164	151.1599696
KINGS PARK	Former Dow Corning Factory	21 Tattersall ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.75012653	150.9138477
KINGS PARK	Multi-Fill	14 Garling ROAD	Unclassified	Regulation being finalised	-33.74478046	150.9111964
KINGSFORD	Caltex Service Station	603-611 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.93435787	151.2371198
KINGSFORD	Coles Express Service Station Kingsford	58 Gardeners ROAD	Service Station	Regulation under CLM Act not required	-33.9250054	151.2257601
KINGSGROVE	Shell Coles Express Service Station	137 Kingsgrove ROAD	Service Station	Regulation under CLM Act not required	-33.93276948	151.099026
KINGSGROVE	Caltex Kingsgrove	351-357 Stoney Creek ROAD	Service Station	Regulation under CLM Act not required	-33.95132175	151.0926872
KINGSGROVE	State Transit Authority Depot	17-23 Richland STREET	Other Petroleum	Regulation under CLM Act not required	-33.93646086	151.0973617
KIRRAWEE	Ingal Civil Products	127-141 Bath ROAD	Metal Industry	Regulation under CLM Act not required	-34.03029516	151.0754469
KIRRAWEE	7-Eleven (former Mobil) Service Station	542-546 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.03238179	151.0758071
KIRRAWEE	Caltex-branded Kirrawee Service Station	(1-3 Waratah Street) 487 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.02915971	151.0808279
KOGARAH	Scarborough Park South	Production AVENUE	Landfill	Regulation being finalised	-33.97922253	151.140276
KOGARAH	Caltex Service Station	29 President AVENUE	Service Station	Regulation under CLM Act not required	-33.96516866	151.141145
KOGARAH	7-Eleven Service Station	736 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.96406472	151.1376011
KOGARAH	Woolworths Petrol Service Station	69 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.96330397	151.1371182

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KOOLKHAN	Former Koolkhan Power Station	Summerland WAY	Other Industry	Regulation under CLM Act not required	-29.61688704	152.9300645
KOORAGANG	Orica Kooragang Island	15 Greenleaf ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-32.89654619	151.7771372
KOORAGANG	Kooragang Island Waste Facillity	Lot 121 DP874949 OTHER	Metal Industry	Contamination currently regulated under POEO Act	-32.88250732	151.7466125
KOORAGANG	NPC, berths 2 and 3	Heron ROAD	Metal Industry	Regulation being finalised	-32.89260063	151.7742527
KOORAGANG	Former Boral Timber Export Facility	16 Heron ROAD	Other Industry	Regulation under CLM Act not required	-32.89710295	151.7739966
KOORAGANG	Cleanaway Technical Services	19 Egret STREET	Unclassified	Regulation under CLM Act not required	-32.8634857	151.7414904
KOORAGANG	Vacant Land	Raven Street and Cormorant ROAD	Unclassified	Regulation under CLM Act not required	-32.88410199	151.7701334
KOORAGANG	Industrial Facility	39 Heron ROAD	Chemical Industry	Under assessment	-32.89106439	151.7784064
KOORAGANG	Linx Logistics	240 Cormorant ROAD	Other Industry	Under assessment	-32.87480951	151.7757352
KOORINGAL	Former Shell Wagga Depot	11-15 Lake Albert ROAD	Other Petroleum	Regulation under CLM Act not required	-35.12273113	147.3786005
KOORINGAL	Caltex Service Station	265-267 Lake Albert ROAD	Service Station	Regulation under CLM Act not required	-35.14078443	147.3755442
KOORINGAL	Caltex-branded (former Mobil) Service Station	24 Lake Albert ROAD	Service Station	Regulation under CLM Act not required	-35.12239591	147.3769936
KOSCIUSZKO	Smiggin Holes Snow Clearing Shed	Link ROAD	Landfill	Regulation under CLM Act not required	-36.39098211	148.4304981
KOSCIUSZKO	Khancoban Spoil Dump	Alpine WAY	Landfill	Regulation under CLM Act not required	-36.21982803	148.1527401
KOSCIUSZKO	Sawpit Creek landfill	13km from Jindabyne, off Kosciuszko ROAD	Landfill	Regulation under CLM Act not required	-36.34858097	148.5673374
KURMOND	BP Service Station	501 Bells Line of road ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.55096662	150.6911676
KURNELL	Caltex Refinery	2 Solander STREET	Other Petroleum	Contamination currently regulated under POEO Act	-34.0175214	151.2159572
KURNELL	Abbott Australasia	Captain Cook DRIVE	Chemical Industry	Contamination formerly regulated under the CLM Act	-34.02339937	151.19921
KURNELL	Former Phillips Imperial Chemicals site	260 Captain Cook DRIVE	Chemical Industry	Regulation under CLM Act not required	-34.02493837	151.1952149
KURNELL	Former Caltex Kurnell Service Station	Corner Captain Cook Drive and Solander STREET	Service Station	Regulation under CLM Act not required	-34.01269846	151.2094347
KURRI KURRI	Caltex Service Station	279-281 Lang STREET	Service Station	Contamination currently regulated under CLM Act	-32.82047175	151.477646
KURRI KURRI	Kurri Kurri Smelter	Hart ROAD	Metal Industry	Regulation under CLM Act not required	-32.7873063	151.4828827
KYOGLE	Caltex Service Station	22-24 Summerland WAY	Service Station	Regulation under CLM Act not required	-28.61806766	153.003862
LAKE HAVEN	Caltex Service Station	Goobarabah Ave Cnr Gorokan DRIVE	Service Station	Regulation under CLM Act not required	-33.24337276	151.5065335

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
LAKEMBA	Former Lakemba Police Station	59 Quigg STREET	Unclassified	Regulation under CLM Act not required	-33.92199239	151.079412
LAKEMBA	Caltex Service Station - Corner Punchbowl Rd and Wangee Rd	81 Wangee ROAD	Service Station	Regulation under CLM Act not required	-33.91153044	151.073306
LAKEMBA	Caltex Service Station	961-967 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.92671102	151.0814905
LAMBTON	Caltex Service Station	422 Newcastle ROAD	Service Station	Regulation under CLM Act not required	-32.9095592	151.7109684
LANE COVE	Pacific Power	Sirius ROAD	Landfill	Contamination formerly regulated under the CLM Act	-33.80701776	151.1449658
LANE COVE	7-Eleven Service Station	203 Burns Bay ROAD	Service Station	Regulation under CLM Act not required	-33.81458334	151.1543844
LANE COVE	BP-branded Jasbe Service Station	62-70 Epping ROAD	Service Station	Regulation under CLM Act not required	-33.81108427	151.1641531
LANE COVE	Coles Express Service Station Burns Bay	254 Burns Bay ROAD	Service Station	Regulation under CLM Act not required	-33.81719214	151.1518774
LANE COVE NORTH	BP Artarmon Service Station, Lane Cove North	432 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.8112038	151.175547
LANE COVE NORTH	Former Caltex Service Station	428-432 Mowbray ROAD	Service Station	Regulation under CLM Act not required	-33.80804563	151.1721538
LANE COVE WEST	Caltex Lane Cove West	235-245 Burns Bay ROAD	Service Station	Regulation under CLM Act not required	-33.81719214	151.1518774
LANE COVE WEST	Ventemans Reach Bushland	Off Mars ROAD	Unclassified	Under assessment	-33.80615015	151.1451474
LANSVALE	Mobil Service Station	161 Hume HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.89442261	150.9571507
LANSVALE	Mobil Service Station	44 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.89172416	150.9656537
LAURIETON	Camden Haven Tyre and Brake Centre (Former Caltex Service	461 Ocean DRIVE	Service Station	Regulation under CLM Act not required	-31.64367775	152.7977735
LAVENDER BAY	SRA Land	French STREET	Unclassified	Regulation under CLM Act not required	-33.84560621	151.2030148
LAVINGTON	Former Caltex Service Station	373-375 Wagga ROAD	Service Station	Regulation under CLM Act not required	-36.04797551	146.9385325
LAVINGTON	Caltex Service Station	436 Wagga (corner Dick Road) ROAD	Service Station	Regulation under CLM Act not required	-36.04500034	146.9444932
LAVINGTON	Former ERS liquid waste treatment and storage facility	819 Knights ROAD	Other Industry	Regulation under CLM Act not required	-36.06763885	146.942143
LEETON	Former Mobil Depot	108 Calrose STREET	Other Petroleum	Regulation under CLM Act not required	-34.55813326	146.3921296
LEETON	Caltex Service Station	1 Belah STREET	Service Station	Regulation under CLM Act not required	-34.55421752	146.3998431
LEETON	Yenda Producers (formerly Incitec) Leeton	1 - 2 Canal STREET	Other Petroleum	Regulation under CLM Act not required	-34.55184684	146.3862573
LEETON	Former Fuel Depot, Leeton	1-3 Short St STREET	Other Petroleum	Regulation under CLM Act not required	-34.55253237	146.3864507
LEICHHARDT	Former Kolotex site	22 George STREET	Other Industry	Contamination currently regulated under CLM Act	-33.888	151.148

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
LEICHHARDT	Former Labelcraft Site	30-40 George STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.887795	151.148486
LEICHHARDT	SRA Land	10-11 Balmain ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.87774852	151.1590952
LEICHHARDT	Leichhardt Bus Depot Area E	240 Balmain Road, corner City West LINK	Other Industry	Regulation under CLM Act not required	-33.87589727	151.1598073
LEICHHARDT	RailCorp Leichhardt	7 Darley ROAD	Other Industry	Regulation under CLM Act not required	-33.87520846	151.1539012
LENNOX HEAD	Spoors Dip	13 Fig Tree Hill DRIVE	Cattle Dip	Contamination formerly regulated under the CLM Act	-28.78258175	153.5752527
LENNOX HEAD	Former Caltex Lennox Head	Byron STREET	Service Station	Regulation under CLM Act not required	-28.79189328	153.5883225
LEPPINGTON	Coles Express Leppington	1443 Camden Valley WAY	Service Station	Regulation under CLM Act not required	-33.96631609	150.8154793
LEUMEAH	Caltex Service Station	6 Rudd ROAD	Service Station	Regulation under CLM Act not required	-34.05398325	150.8299209
LEURA	Former Leura Garage	126-128 Leura MALL	Service Station	Regulation under CLM Act not required	-33.7125311	150.3315386
LIDDELL	Liddell Power Station	New England HIGHWAY	Other Industry	Regulation under CLM Act not required	-32.37393962	150.9756283
LIDSDALE	Angus Place Colliery	Wolgan ROAD	Other Industry	Regulation under CLM Act not required	-33.35274573	150.0996773
LIDSDALE	Kerosene Vale Colliery	Wolgan ROAD	Other Industry	Regulation under CLM Act not required	-33.38145755	150.0940097
LIGHTNING RIDGE	Former Ambulance Station	18 - 42 Pandora STREET	Other Industry	Regulation under CLM Act not required	-29.43133877	147.9812981
LIGHTNING RIDGE	Caltex Service Station	Onyx St Cnr Morilla STREET	Service Station	Regulation under CLM Act not required	-29.42922885	147.9747954
LILLIAN ROCK	Former 'Peters Dip' Cattle Tick Dip Site	427 Lillian Rock ROAD	Cattle Dip	Regulation under CLM Act not required	-28.5314327	153.1556392
LINDFIELD	7-Eleven (former Mobil) Service Station	238 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.7788603	151.1689594
LISAROW	OneSteel Recycling	902A Pacific HIGHWAY	Metal Industry	Regulation under CLM Act not required	-33.38420179	151.3655856
LISMORE	Lismore Gasworks	Cnr John Street & Keen STREET	Gasworks	Ongoing maintenance required to manage residual contamination	-28.81764489	153.2710196
LISMORE	Caltex Lismore Service Station	136 Woodlark STREET	Service Station	Regulation under CLM Act not required	-28.80807597	153.2807591
LISMORE	Shell Coles Express Service Station	100 Dawson STREET	Service Station	Regulation under CLM Act not required	-28.81140865	153.2800472
LISMORE	Former Shell Depot	116 Wilson STREET	Other Petroleum	Regulation under CLM Act not required	-28.81070081	153.2621577
LISMORE	Caltex Service Station	73-75 Dawson STREET	Service Station	Regulation under CLM Act not required	-28.80894415	153.2809619
LISMORE	SRA Land	Norco LANE	Unclassified	Regulation under CLM Act not required	-28.810742	153.2702306
LISMORE HEIGHTS	Coles Express Lismore Heights	426 Ballina ROAD	Service Station	Contamination currently regulated under CLM Act	-28.81068067	153.3053065

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
LITHGOW	Lithgow Thales	4 Martini PARADE	Metal Industry	Contamination formerly regulated under the CLM Act	-33.49012248	150.1415389
LITHGOW	Former Shell CVRO and Depot	77 Bridge Street and 6 Gas Works LANE	Other Petroleum	Regulation under CLM Act not required	-33.47995091	150.162216
LITHGOW	Former Mobil Depot	353 Main STREET	Other Petroleum	Regulation under CLM Act not required	-33.48235166	150.1383012
LITHGOW	Former Gasworks	Mort STREET	Gasworks	Regulation under CLM Act not required	-33.47995167	150.1635401
LITHGOW	Jasbe BP-branded Service Station (Former Reliance Petroleum)	1106 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.48426647	150.134992
LITHGOW	Caltex Lithgow (Quota Park)	Adjacent to 1131 Great Western HIGHWAY	Unclassified	Regulation under CLM Act not required	-33.47927554	150.1366238
LIVERPOOL	AC McGrath (Wholesale) Pty Ltd	20 Shepherd Street and 6A & 6B Atkinson STREET	Other Industry	Regulation under CLM Act not required	-33.9320192	150.9236862
LIVERPOOL	Former Car Park	4 - 6 Rose STREET	Unclassified	Regulation under CLM Act not required	-33.93258955	150.9157936
LIVERPOOL	Woolworths Service Station	59-67 Orange Grove ROAD	Service Station	Regulation under CLM Act not required	-33.90711248	150.9178855
LOFTUS	BP Freedom Fuel Service Station Loftus	127 Loftus AVENUE	Service Station	Under assessment	-34.04570765	151.0508004
LONG JETTY	Caltex Service Station	431 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.36022468	151.4826553
LONG JETTY	7-Eleven (former Mobil) Service Station	184-186 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.35089363	151.4924904
LONG JETTY	Brocks Garage	326 The Entrance ROAD	Service Station	Under assessment	-33.35897356	151.4847709
LONG JETTY	Westside Petroleum Service Station	290-294 The Entrance ROAD	Service Station	Under assessment	-33.35688982	151.4862246
LONGUEVILLE	Caltex Service Station	5-7 Northwood ROAD	Service Station	Regulation under CLM Act not required	-33.82452775	151.1725758
LUCAS HEIGHTS	Harringtons Quarry	access from Little Forest ROAD	Landfill	Contamination currently regulated under CLM Act	-34.03555347	150.9751826
LUCAS HEIGHTS	IWC landfill	Little Forest ROAD	Landfill	Contamination currently regulated under CLM Act	-34.03214889	150.9753474
LUDDENHAM	Caltex Service Station	3019-3035 The Northern ROAD	Service Station	Regulation under CLM Act not required	-33.87536093	150.6888872
MACKSVILLE	Caltex Service Station	Pacific (22-24 Cooper Street) HIGHWAY	Service Station	Regulation under CLM Act not required	-30.70977455	152.9198448
MACLEAN	MacLean Outdoors	255 River STREET	Service Station	Regulation under CLM Act not required	-29.45782683	153.1970725
MACQUARIE FIELDS	Caltex Service Station	68 Harold STREET	Service Station	Regulation under CLM Act not required	-33.98557276	150.8933681
MACQUARIE PARK	Caltex North Ryde Service Station	41-43 Epping ROAD	Service Station	Regulation under CLM Act not required	-33.79138236	151.1312248
MACQUARIE PARK	1-7 Waterloo Road, Macquarie Park	1-7 Waterloo ROAD	Other Petroleum	Regulation under CLM Act not required	-33.78806877	151.1332148
MACQUARIE PARK	De Burghs Cycleway - Lane Cove National Park	Riverside DRIVE	Other Petroleum	Regulation under CLM Act not required	-33.77802854	151.1367529

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
MACQUARIE PARK	Porters Creek Depot	160 Wicks ROAD	Landfill	Under assessment	-33.785464	151.136686
MAITLAND	Maitland Gasworks	Charles STREET	Gasworks	Contamination currently regulated under CLM Act	-32.73603658	151.5578926
MAITLAND	Hannan and High Street	Hannan Street and High STREET	Service Station	Regulation under CLM Act not required	-32.72731682	151.5515673
MAITLAND	Coles Express Service Station	235 High STREET	Service Station	Regulation under CLM Act not required	-32.73923807	151.5620399
MALABAR	ANZAC Rifle Range former landfill	Franklin STREET	Landfill	Regulation being finalised	-33.95792671	151.2566373
MANDALONG	Mandalong Mine	Mandalong ROAD	Other Industry	Regulation under CLM Act not required	-33.11725583	151.4616452
MANGROVE MOUNTAIN	Poultry Litter Containment Pit site	258 Waratah ROAD	Unclassified	Regulation under CLM Act not required	-33.28917277	151.167235
MANILLA	Tamworth Regional Council Works Depot - Manilla	73 River STREET	Other Petroleum	Regulation under CLM Act not required	-30.746085	150.725363
MANLY	Little Manly Point	Stuart STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.80814626	151.2876245
MANLY	Caltex Service Station	86 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.79306889	151.2858638
MANLY	Former Little Manly Point Gasworks	End of Stuart STREET	Gasworks	Regulation under CLM Act not required	-33.80842005	151.2877784
MANLY	St Patrick's Estate	151 Darley ROAD	Unclassified	Regulation under CLM Act not required	-33.8044568	151.2938595
MANLY VALE	Former Landfill Addiscombe Road	Addiscombe ROAD	Landfill	Contamination currently regulated under CLM Act	-33.78307439	151.2747846
MANLY VALE	Caltex Service Station Manly Vale	236-238 Condamine STREET	Service Station	Regulation under CLM Act not required	-33.78508231	151.2674386
MANNERING PARK	Parkview General Store (a former service station)	2 Vales ROAD	Service Station	Regulation under CLM Act not required	-33.14753814	151.5387832
MANNERING PARK	Mannering Park Mini Mart	70 Vales ROAD	Service Station	Regulation under CLM Act not required	-33.15236501	151.5371767
MARAYONG	7-Eleven (former Mobil Blacktown West) Service Station Marayong	173 Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.75472796	150.8913605
MARAYONG	Woolworths Petrol Service Station Marayong	Corner Vardys Road and Turbo ROAD	Service Station	Regulation under CLM Act not required	-33.7452356	150.9041601
MARDI	Former Mardi Landfill	70-90 McPherson ROAD	Landfill	Regulation under CLM Act not required	-33.29273289	151.4100941
MARKS POINT	Former Mobil Service Station (now 7-Eleven)	770-772 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.05646268	151.6533795
MARKS POINT	Former Mobil Aviation Depot Belmont Airport	864 Pacific HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-33.06657244	151.6497674
MAROUBRA	Coles Express Pagewood Service Station, Maroubra	299 Bunnerong PARADE	Service Station	Regulation under CLM Act not required	-33.94071282	151.2285063
MARRANGAROO	United (Former Mobil) Service Station Marrangaroo	394-398 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.45253322	150.1181023
MARRICKVILLE	Former Dry Cleaners and Loading Dock (adjacent Lot 1 DP612551)	Smidmore STREET	Other Industry	Contamination currently regulated under CLM Act	-33.90707592	151.171701

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
MARRICKVILLE	TRW Steering and Suspension	22-28 Carrington ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.92012667	151.1566181
MARRICKVILLE	Cooks River Aqueduct	Thornley STREET	Unclassified	Contamination formerly regulated under the CLM Act	-33.92204604	151.1480332
MARRICKVILLE	Former Mobil Service Station	384 Illawarra ROAD	Service Station	Regulation under CLM Act not required	-33.91534969	151.1506717
MARRICKVILLE	Woolworths Petrol Service Station Marrickville	490 Illawarra ROAD	Service Station	Regulation under CLM Act not required	-33.91845177	151.1459951
MARRICKVILLE	RailCorp	361 Victoria ROAD	Other Industry	Regulation under CLM Act not required	-33.91404835	151.1557132
MARRICKVILLE	Mackey Park	Cnr Richardsons Crescent and Carrington ROAD	Landfill	Regulation under CLM Act not required	-33.9220263	151.1547903
MARRICKVILLE	2 Carrington Road	2 Carrington ROAD	Unclassified	Regulation under CLM Act not required	-33.91596071	151.1597199
MARSDEN PARK	226 Grange Avenue	226 Grange AVENUE	Unclassified	Regulation under CLM Act not required	-33.70259609	150.83825
MARSFIELD	Coles Express Service Station Marsfield	189 Epping ROAD	Service Station	Regulation under CLM Act not required	-33.77519246	151.1053691
MARULAN	BP Express Marulan (Northbound)	(Northbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.7188332	149.9949547
MARULAN	BP Service Station	(Southbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.71932066	150.0014827
MARYVILLE	7-Eleven (former Mobil) Service Station	184-188 Hannell STREET	Service Station	Contamination currently regulated under CLM Act	-32.91336028	151.7579315
MASCOT	Mascot Pioneer Plating	25-29 Ricketty STREET	Metal Industry	Contamination currently regulated under CLM Act	-33.92075288	151.1824801
MASCOT	Former Shell Service Station Mascot	746 Botany ROAD	Service Station	Contamination currently regulated under CLM Act	-33.92352295	151.1955852
MASCOT	Former Mascot Galvanising	336-348 King STREET	Metal Industry	Contamination currently regulated under CLM Act	-33.92902126	151.185874
MASCOT	Former Zinc Smelter and Paint Manufacturing Facility	163 O'Riordan STREET	Metal Industry	Regulation under CLM Act not required	-33.92526513	151.1892582
MASCOT	Caltex Service Station	125 O'Riordan STREET	Service Station	Regulation under CLM Act not required	-33.92309169	151.1911539
MASCOT	Heritage Business Centre	5-9 Ricketty STREET	Unclassified	Regulation under CLM Act not required	-33.92029202	151.1816656
MASCOT	Telstra Exchange	904-922 Botany ROAD	Other Industry	Regulation under CLM Act not required	-33.9293166	151.1942777
MASCOT	Ing Industrial Fund (unoccupied Land and General Parking)	19-33 Kent ROAD	Landfill	Regulation under CLM Act not required	-33.922765	151.185262
MASCOT	Sokol Corporation	50-56 Robey STREET	Other Industry	Regulation under CLM Act not required	-33.93162265	151.1904955
MASCOT	Linear Park	Lot 2, 3, 4 & 5 in DP 85917	Landfill	Regulation under CLM Act not required	-33.92278693	151.1904751
MATRAVILLE	Former Rieco Incinerator	Kain AVENUE	Other Industry	Contamination being managed via the planning process (EP&A Act)	-33.95980534	151.2423679
MATRAVILLE	Former Golden Fleece Terminal No2	151 Beauchamp ROAD	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.95719404	151.2259884

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
MATRAVILLE	Former Golden Fleece Terminal No1	133 -149 Beauchamp ROAD	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.95776666	151.2248518
MATRAVILLE	7-Eleven Service Station Matraville	515 Bunnerong ROAD	Service Station	Regulation being finalised	-33.95943536	151.2317598
MATRAVILLE	Port Botany Bus Depot	7 Bumborah Point ROAD	Other Petroleum	Regulation under CLM Act not required	-33.96880413	151.2255889
MATRAVILLE	Vacant Lot	3 Wilkes AVENUE	Other Industry	Regulation under CLM Act not required	-33.96006406	151.2431087
MAYFIELD	BHP Steel River	directly adjacent to the Hunter River; near the Tourle Street	Metal Industry	Contamination currently regulated under CLM Act	-32.8773556	151.7252427
MAYFIELD	BHPB Supply site	Lot 223 South and West - Industrial DRIVE	Metal Industry	Contamination currently regulated under CLM Act	-32.88583041	151.7388423
MAYFIELD	OneSteel (BHP)	Industrial DRIVE	Metal Industry	Contamination currently regulated under CLM Act	-32.88366987	151.7449491
MAYFIELD	BHP Closure Site (Hunter River Sediments)	adjacent to Lot 221 DP1013964 RIVER	Metal Industry	Contamination formerly regulated under the CLM Act	-32.89203741	151.7646702
MAYFIELD	7-Eleven (Former Mobil) Service Station	412-416 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.89292005	151.7300948
MAYFIELD	Shell Coles Express Service Station	63-69 Maud STREET	Service Station	Regulation under CLM Act not required	-32.89358962	151.7221298
MAYFIELD	Australian Tube Mills Newcastle Site	Industrial DRIVE	Metal Industry	Regulation under CLM Act not required	-32.88835767	151.7450751
MAYFIELD	Waratah Steel Mill	23 Frith STREET	Metal Industry	Regulation under CLM Act not required	-32.89426592	151.7257429
MAYFIELD NORTH	Newcastle Wire Mill	141 Ingall STREET	Metal Industry	Regulation under CLM Act not required	-32.89008485	151.752949
MAYFIELD WEST	Koppers Coal Tar	East of Woodstock Street and Tourle STREET	Other Industry	Contamination currently regulated under CLM Act	-32.88591801	151.7361906
MAYFIELD WEST	Stevenson Park landfill	2/559 Maitland ROAD	Landfill	Regulation under CLM Act not required	-32.88472556	151.7224791
MAYFIELD WEST	Tourle Street Bridge Project	Tourle STREET	Landfill	Regulation under CLM Act not required	-32.88075518	151.7330073
MCDOUGALLS HILL	Caltex Service Station	4949 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.54484714	151.1490757
MEADOWBANK	Former Council Works Depot	2 Parsonage STREET	Unclassified	Regulation under CLM Act not required	-33.82191421	151.0951974
MENAI	7-Eleven (Former Mobil) Service Station Menai	289 Menai ROAD	Service Station	Regulation under CLM Act not required	-34.01579095	151.0131737
MENAI	Caltex Service Station Menai	1 Carter Road ROAD	Service Station	Regulation under CLM Act not required	-34.01654043	151.0124133
MEREWETHER	Merewether Childcare Centre	2/23 Caldwell STREET	Unclassified	Regulation under CLM Act not required	-32.94249653	151.7504279
MERIMBULA	Caltex Service Station	19-25 Merimbula DRIVE	Service Station	Regulation under CLM Act not required	-36.88757881	149.9089159
MERIMBULA	Former Mobil Service Station	27 Market STREET	Service Station	Regulation under CLM Act not required	-36.88941693	149.9103485
MERRYLANDS	Society of St Vincent de Paul	11-19 Centenary ROAD	Other Petroleum	Regulation under CLM Act not required	-33.83083025	150.9698915

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
MERRYLANDS	Caltex Service Station	229 Woodville ROAD	Service Station	Regulation under CLM Act not required	-33.84547463	150.9983413
MERRYLANDS	Caltex Service Station Merrylands	148 Woodville ROAD	Service Station	Regulation under CLM Act not required	-33.83818499	150.9997199
MERRYLANDS	7-Eleven Merrylands Service Station	295-297 Merrylands (Cnr Windsor Rd) ROAD	Service Station	Regulation under CLM Act not required	-33.83533205	150.9851801
MERRYLANDS	Former Stockfeed Manufacturing Site	1-7 & 9-11 Neil STREET	Other Petroleum	Regulation under CLM Act not required	-33.83390257	150.9947449
MERRYLANDS	Stockland Merrylands Court	227-259 Merrylands ROAD	Unclassified	Under assessment	-33.83560901	150.9875552
MERRYLANDS WEST	Former Mobil Service Station	3 Centenary ROAD	Service Station	Regulation under CLM Act not required	-33.83214226	150.9698958
MILLER	Caltex Service Station	86 Cartwright AVENUE	Service Station	Regulation under CLM Act not required	-33.91878146	150.8827514
MILLERS FOREST	Chichester Trunk Gravity Main	water pipeline	Other Industry	Contamination currently regulated under POEO Act	-32.772877	151.6826841
MILLERS POINT	Former AGL Gasworks	38 Hickson and road reserve ROAD	Gasworks	Contamination being managed via the planning process (EP&A Act)	-33.86280104	151.2032452
MILLERS POINT	Former AGL Gasworks (refer to #36 Hickson Road)	demolished) and part Hickson ROAD	Gasworks	Contamination currently regulated under CLM Act	-33.86053571	151.2015022
MILLERS POINT	Former AGL Gasworks	Road reserve fronting 30-38 Hickson ROAD	Gasworks	Contamination currently regulated under CLM Act	-33.86241531	151.2024634
MILLERS POINT	Former AGL Gasworks	Hickson ROAD	Gasworks	Contamination currently regulated under CLM Act	-33.86241531	151.2024634
MILLERS POINT	Former AGL Gasworks	36 Hickson ROAD	Gasworks	Contamination currently regulated under CLM Act	-33.86243824	151.2032514
MILLERS POINT	Port Services (Moores) Facility	4 Towns PLACE	Other Petroleum	Contamination currently regulated under POEO Act	-33.85581123	151.2024759
MILLERS POINT	Former AGL Gasworks	30 - 34 Hickson ROAD	Gasworks	Regulation under CLM Act not required	-33.86179594	151.2031726
MILPERRA	Heatcraft Australia Pty Ltd	286 Horsley ROAD	Other Industry	Regulation under CLM Act not required	-33.94031556	150.9958606
MILPERRA	United Group Rail Pty Limited	373 Horsley ROAD	Landfill	Regulation under CLM Act not required	-33.93286283	150.9934071
MILPERRA	Caltex Service Station	264 Milperra ROAD	Service Station	Regulation under CLM Act not required	-33.93018101	150.9910964
MILTON	Former Sanitary Depot	Slaughterhouse ROAD	Other Industry	Regulation under CLM Act not required	-35.33819825	150.4471917
MILTON	Caltex Milton Service Station and Depot	331 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.33154474	150.4492852
MINCHINBURY	7-Eleven (former Mobil) Service Station	815 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.78812909	150.8495992
MINCHINBURY	BP Service Station	1055 Great Western Highway corner Archbold ROAD	Service Station	Regulation under CLM Act not required	-33.78211857	150.8244185
MINTO	Land adjacent to Former Shell depot	Airds Road and Essex STREET	Other Petroleum	Regulation under CLM Act not required	-34.02140447	150.8415134
MINTO	Shell Coles Express Service Station	73 Pembroke STREET	Service Station	Regulation under CLM Act not required	-34.02316454	150.8503118
MINTO	Former Endeavour Energy's Depot	Pembroke ROAD	Unclassified	Regulation under CLM Act not required	-34.0331168	150.8464722

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
MINTO	Logistics Hub - Culverston Road, Minto	Culverston ROAD	Other Petroleum	Regulation under CLM Act not required	-34.0421711	150.833825
MIRANDA	Woolworth's Service Station	455 Kingsway OTHER	Service Station	Contamination currently regulated under CLM Act	-34.03492814	151.1124681
MITTAGONG	Lots 1 and 2 Alfred St.	Alfred STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-34.44738105	150.4565159
MITTAGONG	Enhance (former Coles Express) Service Station	224 Old Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.44746118	150.4326183
MITTAGONG	Caltex Mittagong Service Station	65 Bowral ROAD	Service Station	Regulation under CLM Act not required	-34.45245915	150.4381291
MOAMA	Caltex Moama Service Station	73 Meninya (Cnr Regent St) STREET	Service Station	Regulation under CLM Act not required	-36.10815134	144.752849
MOLONG	Cabonne BP Service Station	2 Gidley STREET	Service Station	Contamination currently regulated under CLM Act	-33.09026307	148.8695809
MOLONG	Former Gasworks	Hill STREET	Gasworks	Contamination currently regulated under CLM Act	-33.09074595	148.8703262
MONA VALE	Mona Vale Bus Depot	58 Darley STREET	Other Petroleum	Contamination currently regulated under CLM Act	-33.67452414	151.3074246
MONA VALE	Former Caltex service station and adjacent properties	Avenue, 6 Polo Avenue, 45 Bassett STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.6743659	151.3096932
MONA VALE	Caltex Investigation Area	Polo Ave, Perak STREET	Service Station	Regulation being finalised	-33.67431333	151.3091148
MONA VALE	7-Eleven (former Mobil) Service Station	24 Barrenjoey ROAD	Service Station	Regulation under CLM Act not required	-33.676909	151.3082515
MONA VALE	BP Peninsula Express Service Station	Corner Barrenjoey Road and Darley Street East STREET	Service Station	Regulation under CLM Act not required	-33.67670799	151.3090068
MONA VALE	BP Service Station Mona Vale	1721 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.68043443	151.3023553
MOOBALL	Mooball General Store	5913 Tweed Valley WAY	Service Station	Regulation under CLM Act not required	-28.44204594	153.4887648
MOONBI	Caltex Moonbi Service Station	New England HIGHWAY	Service Station	Regulation under CLM Act not required	-31.02264369	151.069094
MOORE PARK	Area 2, Moore Park	Driver AVENUE	Unclassified	Regulation under CLM Act not required	-33.89426868	151.2226839
MOOREBANK	ABB Australia Pty Ltd	(a) 1 Bapaume ROAD	Other Industry	Ongoing maintenance required to manage residual contamination	-33.94143741	150.9208754
MOOREBANK	Caltex Service Station	216 Newbridge ROAD	Service Station	Regulation under CLM Act not required	-33.92930835	150.9551469
MOOREBANK	Joyce Foam Products	5-9 Bridges ROAD	Chemical Industry	Regulation under CLM Act not required	-33.92596302	150.9335273
MOOREBANK	Caltex Service Station Moorebank	2 Bridges ROAD	Service Station	Regulation under CLM Act not required	-33.92839682	150.9327012
MOOREBANK	Former Landfill Site	Newbridge ROAD	Landfill	Under assessment	-33.93907207	150.9654125
MOORLAND	Caltex Service Station	99 Jericho ROAD	Service Station	Regulation under CLM Act not required	-31.79436622	152.6514849
MOREE	Former Freedom Service Station Site Moree	1 Dover STREET	Service Station	Contamination currently regulated under CLM Act	-29.4715814	149.8440279

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MOREE	Former Golden Fleece	Gosport STREET	Other Petroleum	Contamination currently regulated under CLM Act	-29.47698315	149.8477108
MOREE	Former Mobil Depot	Gosport STREET	Other Petroleum	Contamination currently regulated under CLM Act	-29.47771921	149.8478438
MOREE	Caltex Service Station	54 Alice STREET	Service Station	Contamination currently regulated under CLM Act	-29.47158492	149.8433182
MOREE	Former Shell Depot	Adelaide STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-29.47655335	149.8465698
MOREE	Caltex Depot	101 Gosport STREET	Other Petroleum	Regulation under CLM Act not required	-29.47603684	149.8476728
MOREE	Moree Airport Evaporation Pond	Newell HIGHWAY	Unclassified	Regulation under CLM Act not required	-29.50289837	149.8411301
MOREE	Shell Coles Express Service Station	Corner Gwydir and Balo STREET	Service Station	Regulation under CLM Act not required	-29.46081826	149.8419975
MOREE	BP Truckstop and Depot Moree	Newell Highway - 423 Frome STREET	Service Station	Regulation under CLM Act not required	-29.48223274	149.8463679
MORISSET	Railcorp Station Masters Cottage	24 Dora STREET	Unclassified	Regulation under CLM Act not required	-33.10849681	151.4880317
MORPETH	Telstra Cable Installation and RTA Bridge work	Northumberland STREET	Other Petroleum	Regulation under CLM Act not required	-32.72489729	151.6266795
MORPETH	Former Service Station	Swan STREET	Service Station	Regulation under CLM Act not required	-32.72477413	151.6250642
MORTLAKE	Kendall Bay Sediments	Kendall Bay OTHER	Gasworks	Contamination currently regulated under CLM Act	-33.83905999	151.1120458
MORTLAKE	Former AGL site	Tennyson ROAD	Gasworks	Contamination formerly regulated under the CLM Act	-33.84287407	151.1109313
MORTLAKE	Former Petroleum Storage Site	108-116 Tennyson ROAD	Other Petroleum	Regulation under CLM Act not required	-33.83979033	151.1064889
MORUYA	Caltex Service Station Moruya	80-84 Campbell STREET	Service Station	Regulation under CLM Act not required	-35.91195596	150.0824213
MORUYA	Caltex Service Station	26 Campbell STREET	Service Station	Regulation under CLM Act not required	-35.9104985	150.0711419
MORUYA	Former Fuel Depot Moruya	11 to 13 Ford STREET	Other Petroleum	Under assessment	-35.9112243	150.0826475
MOSMAN	7-Eleven Mosman	162A Spit Road Corner Mitchell ROAD	Service Station	Regulation under CLM Act not required	-33.81747016	151.2433633
MOSMAN	BP Service Station	175 Ourimbah ROAD	Service Station	Regulation under CLM Act not required	-33.82106757	151.233291
MOSMAN	7-Eleven Service Station Mosman	45 Spit ROAD	Service Station	Regulation under CLM Act not required	-33.82302718	151.2435627
MOSS VALE	Woolworths Service Station Moss Vale	609 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.55409411	150.3609797
MOSS VALE	Coles Express Service Station	579 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.55313422	150.364684
MOSS VALE	Moss Vale Refuelling Facility	Lackey ROAD	Other Petroleum	Regulation under CLM Act not required	-34.54662421	150.3721525
MOUNT ANNAN	Great Southern Railways Aqueduct	Off Narellan ROAD	Unclassified	Regulation under CLM Act not required	-34.07308479	150.7707436

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MOUNT COLAH	Caltex Service Station Mount Colah	603 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.67034662	151.1151861
MOUNT DRUITT	Caltex (former Mobil) Service Station	17 Mount STREET	Service Station	Regulation under CLM Act not required	-33.76567994	150.8244544
MOUNT HUTTON	Woolworths Service Station	46 Wilsons ROAD	Service Station	Regulation under CLM Act not required	-32.9836378	151.67309
MOUNT PRITCHARD	7-Eleven Service Station	352 Elizabeth DRIVE	Service Station	Regulation under CLM Act not required	-33.90260656	150.8963326
MOUNT THORLEY	Lowes Petroleum (Former BP) Depot Mount Thorley	74 Mount Thorley ROAD	Other Petroleum	Regulation under CLM Act not required	-32.62443074	151.1025122
MOUNT VICTORIA	Former Mobil Service Station	81 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.5889727	150.2511783
MOUNT VICTORIA	Caltex Service Station	36a Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.58436517	150.2465528
MUDGEE	Mobil Depot	Cnr Inglis Street & Douro STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.60023979	149.5823448
MUDGEE	Caltex Service Station	114-116 Church STREET	Service Station	Regulation under CLM Act not required	-32.59428029	149.5876199
MUDGEE	Shell Coles Express Service Station	47 Church STREET	Service Station	Regulation under CLM Act not required	-32.59347493	149.5884623
MUDGEE	BP Service Station Mudgee	77 Church STREET	Service Station	Regulation under CLM Act not required	-32.59545872	149.588123
MUDGEE	Mudgee Gasworks	Mortimer Street and Court STREET	Gasworks	Regulation under CLM Act not required	-32.59168859	149.5817705
MUDGEE	Former Essential Energy Depot	27-31 Inglis STREET	Other Industry	Regulation under CLM Act not required	-32.60073	149.585658
MUDGEE	Former Caltex Depot Mudgee	cnr Nicholson Street & Atkinson STREET	Other Petroleum	Regulation under CLM Act not required	-32.60125298	149.5851398
MULGRAVE	7-Eleven (former Mobil) Service Station	Corner Windsor Road and Mulgrave ROAD	Service Station	Regulation under CLM Act not required	-33.61687781	150.8341809
MULWALA	Mulwala ADI Explosives Factory	Bayly STAIRS	Other Industry	Regulation being finalised	-35.97572689	145.9809786
MURWILLUMBAH	Puma Murwillumbah (formerly Matilda)	182 Tweed Valley WAY	Service Station	Contamination currently regulated under CLM Act	-28.3263681	153.4103824
MURWILLUMBAH	Murwillumbah Ambulance Depot	27 Queen STREET	Other Petroleum	Regulation under CLM Act not required	-28.32552576	153.4000182
MURWILLUMBAH SOUTH	Former Norco Butter Factory (Eastern Portion)	230 Tweed Valley WAY	Other Petroleum	Regulation under CLM Act not required	-28.32791359	153.4073052
MUSWELLBROOK	Former Caltex Depot	1 Lower William STREET	Service Station	Regulation being finalised	-32.26614257	150.8865136
MUSWELLBROOK	Vacant Rail Land	27 Brook STREET	Unclassified	Regulation under CLM Act not required	-32.26346086	150.8873181
MUSWELLBROOK	United Branded (Former Mobil) Service Station Muswellbrook	49-51 Maitland STREET	Service Station	Regulation under CLM Act not required	-32.27218162	150.8900206
MUSWELLBROOK	Former Mobil Depot Muswellbrook	43-51 Ford STREET	Other Petroleum	Regulation under CLM Act not required	-32.2599725	150.887573
MUSWELLBROOK	Woolworths Petrol	72 Brook STREET	Service Station	Regulation under CLM Act not required	-32.26325377	150.8905966

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MUSWELLBROOK	Caltex Muswellbrook Service Station	84-86 Maitland STREET	Service Station	Regulation under CLM Act not required	-32.27793094	150.8980938
MUSWELLBROOK	Former Gasworks	Cnr Carl St and Foley STREET	Gasworks	Regulation under CLM Act not required	-32.26672337	150.8935982
MUSWELLBROOK	Bayswater Power Station	New England HIGHWAY	Other Industry	Regulation under CLM Act not required	-32.3954046	150.9502683
MUSWELLBROOK	Former Industrial Site	Lot 89 Rathmore STREET	Other Industry	Regulation under CLM Act not required	-32.30544071	150.8823657
MUSWELLBROOK	Caltex Service Station	12-16 Sydney STREET	Service Station	Regulation under CLM Act not required	-32.26785559	150.8879601
MUSWELLBROOK	Former Caltex Depot	47-50 Victoria STREET	Service Station	Regulation under CLM Act not required	-32.26788823	150.8930609
NABIAC	Caltex Service Station Nabiac	3964 Wallanbah (Cnr Wallanbah Rd and Pacific Hwy) ROAD	Service Station	Regulation under CLM Act not required	-32.09864883	152.3754346
NAMBUCCA HEADS	Former Mobil Service Station	6 Bowra STREET	Service Station	Regulation under CLM Act not required	-30.64282127	153.0035884
NARELLAN	Caltex Service Station Narellan	1 George Hunter DRIVE	Service Station	Regulation under CLM Act not required	-34.03963992	150.7432386
NARELLAN	Former Landfill	1 Elyard STREET	Landfill	Regulation under CLM Act not required	-34.043474	150.7393256
NAROOMA	Former Caltex - Narooma	82 Princes HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-36.21711766	150.1279305
NAROOMA	Narooma Service Station	60 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-36.21617955	150.126261
NARRABEEN	Caltex Service Station	1509-1511 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.70455756	151.2969352
NARRABEEN	Shell Coles Express Service Station	1418 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.70013931	151.3002782
NARRABEEN	7-Eleven Service Station	1234 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.71958892	151.298272
NARRABRI	Cargill Soapstock Disposal Site	Westport ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-30.4698458	149.6981931
NARRABRI	Caltex Service Station	13 Doyle STREET	Service Station	Regulation under CLM Act not required	-30.3239182	149.7843052
NARRABRI	Lowes Petroleum (Former Mobil) Narrabri Depot	3 Old Gunnedah ROAD	Other Petroleum	Regulation under CLM Act not required	-30.33473586	149.789587
NARRABRI	Caltex Service Station	31-35 Cooma ROAD	Service Station	Regulation under CLM Act not required	-30.33968576	149.7657241
NARRABRI	Caltex Narrabri Service Station	31 Dangar (Cnr Anne and Dangar) STREET	Service Station	Regulation under CLM Act not required	-30.32989667	149.7756598
NARRABRI	Caltex Service Station	12 Reid STREET	Other Petroleum	Regulation under CLM Act not required	-30.32282764	149.7901182
NARRABRI	Caltex Service Station	7-13 James STREET	Service Station	Regulation under CLM Act not required	-30.33016168	149.7940732
NARRANDERA	Former Mobil Narrandera Depot	24 Whitton STREET	Other Petroleum	Regulation under CLM Act not required	-34.7410523	146.5620667
NARRANDERA	Former Mobil Emoleum Narrandera Depot	5-7 Margaret STREET	Other Petroleum	Regulation under CLM Act not required	-34.74105391	146.5628144

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
NARROMINE	Narromine Fuel (Former Caltex) Service Station	Cnr Burraway Street and Algalah STREET	Service Station	Regulation under CLM Act not required	-32.23565321	148.2454259
NELLIGEN	Former Clay Target Shooting Range	land on Old Bolaro Mountain ROAD	Unclassified	Contamination currently regulated under CLM Act	-35.64392469	150.0955224
NELLIGEN	Lot 2 Old Bolaro Road	Old Bolaro ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-35.64485609	150.0937341
NELSON BAY	Shell Coles Express Service Station	25 Stockton STREET	Service Station	Regulation under CLM Act not required	-32.72265762	152.1437317
NELSON BAY	Former Caltex Service Station Nelson Bay	38 Stockton STREET	Service Station	Regulation under CLM Act not required	-32.72335662	152.1429384
NEMINGHA	Caltex Service Station and Depot Nemingha	428 Armidale (previously 16 New England Highway) ROAD	Service Station	Regulation under CLM Act not required	-31.12425169	150.9909054
NEUTRAL BAY	Caltex Service Station	16-38 Military ROAD	Service Station	Regulation being finalised	-33.82907162	151.2163342
NEUTRAL BAY	Shell Coles Express Service Station	200-204 Ben Boyd ROAD	Service Station	Regulation under CLM Act not required	-33.82915781	151.219437
NEW LAMBTON	Caltex Service Station New Lambton	144 Bridges ROAD	Service Station	Regulation under CLM Act not required	-32.93283668	151.7141748
NEW LAMBTON	BP Service Station	105 St James ROAD	Service Station	Regulation under CLM Act not required	-32.92910325	151.7155801
NEW LAMBTON	7-Eleven (former Mobil) Service Station	291 Turton ROAD	Service Station	Regulation under CLM Act not required	-32.91773864	151.7243096
NEWCASTLE	Reclaimed Land	26-28 Honeysuckle DRIVE	Unclassified	Contamination formerly regulated under the CLM Act	-32.92604705	151.7649508
NEWCASTLE	BHP Steelworks (Closure site)	Bound by Hunter River, Selwyn Street & Industrial DRIVE	Metal Industry	Ongoing maintenance required to manage residual contamination	-32.89436064	151.7590762
NEWCASTLE	Wharf Road Newcastle Car Park	313-317 Wharf ROAD	Unclassified	Regulation under CLM Act not required	-32.92570385	151.7744076
NEWCASTLE	Newcastle Foreshore	40 Stevenson Place STREET	Other Industry	Regulation under CLM Act not required	-32.92556503	151.7876742
NEWCASTLE	SRA Land	Scott STREET	Gasworks	Regulation under CLM Act not required	-32.92641425	151.7837817
NEWCASTLE WEST	Former Mobil Service Station	113 Parry STREET	Service Station	Regulation under CLM Act not required	-32.92560628	151.7558542
NEWPORT	7-Eleven (former Mobil) Service Station	307 Barrenjoey ROAD	Service Station	Regulation under CLM Act not required	-33.65632902	151.3182089
NEWPORT	Former Caltex Service Station Newport	316-324 Barrenjoey ROAD	Service Station	Regulation under CLM Act not required	-33.65634516	151.3191571
NEWTOWN	Former Service Station	81 Wilson STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.89626791	151.1827556
NEWTOWN	Adjacent to Former Service Station	79 Wilson STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.89630155	151.1826567
NEWTOWN	Aluminium Enterprises	66 Brocks LANE	Metal Industry	Contamination was addressed via the planning process (EP&A Act)	-33.89467126	151.1847528
NEWTOWN	Caltex Service Station Newtown	26 - 36 Enmore ROAD	Service Station	Regulation under CLM Act not required	-33.89851331	151.17714
NORAVILLE	Former Toukley Landfill	Wilfred Barrett DRIVE	Landfill	Regulation under CLM Act not required	-33.27734185	151.5537784

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NORTH ALBURY	Caltex Service Station and Diesel Stop	79 Union ROAD	Service Station	Regulation under CLM Act not required	-36.05496713	146.9487635
NORTH BOAMBEE VALLEY	Caltex Service Station	Cnr Pacific Hwy & Halls ROAD	Service Station	Regulation under CLM Act not required	-30.30639482	153.1007996
NORTH BONDI	Caltex Service Station North Bondi	321 Old South Head ROAD	Service Station	Regulation under CLM Act not required	-33.88463526	151.268551
NORTH NARRABEEN	7-Eleven Service Station	1501-1503 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.70749859	151.296351
NORTH RICHMOND	Caltex Service Station	50 Bells Line Of ROAD	Service Station	Regulation under CLM Act not required	-33.57991338	150.7202346
NORTH ROCKS	7-Eleven Service Station North Rocks	340 North Rocks ROAD	Service Station	Regulation under CLM Act not required	-33.76895144	151.0305952
NORTH ST MARYS	BP Service Station	76 Glossop STREET	Service Station	Regulation under CLM Act not required	-33.76020183	150.7818149
NORTH STRATHFIELD	Budget Service Station	143 Concord ROAD	Service Station	Regulation under CLM Act not required	-33.85945248	151.0927853
NORTH STRATHFIELD	Former Caltex Service Station	92a Concord ROAD	Service Station	Regulation under CLM Act not required	-33.86244297	151.0932434
NORTH SYDNEY	HMAS Platypus Neutral Bay	High STREET	Gasworks	Contamination currently regulated under CLM Act	-33.84325935	151.2170347
NORTH SYDNEY	Neutral Bay Sediments	Adjacent to HMAS Platypus, 118 High STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.842724	151.2174523
NORTH SYDNEY	Iora Complex	1 Kiara PLACE	Gasworks	Regulation under CLM Act not required	-33.843145	151.2161142
NORTH WOLLONGONG	Former Mobil Depot	122-126 Montague STREET	Other Petroleum	Regulation under CLM Act not required	-34.40988259	150.8939374
NORTHMEAD	Former Prestige Plastics	1C Redbank ROAD	Other Industry	Regulation under CLM Act not required	-33.79716925	150.989926
NORTHMEAD	Coles Express Service Station Northmead	197 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.77741733	151.0001719
NORTHMEAD	Sydney Water Land	51c Hammers ROAD	Landfill	Regulation under CLM Act not required	-33.7887535	150.9858088
NORTHMEAD	Caltex Service Station	98-100 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.78786563	150.9945909
NORTHMEAD	7-Eleven Service Station Northmead	56 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.79090731	150.9967332
NOWRA	Former gasworks	Lamonds LANE	Gasworks	Contamination currently regulated under CLM Act	-34.87111182	150.6000803
NOWRA	Woolworths Service Station	2 Berry STREET	Service Station	Regulation being finalised	-34.87266278	150.6014052
NOWRA	Former Gasworks Managers Residence	24 Osborne STREET	Gasworks	Regulation under CLM Act not required	-34.8708875	150.5992586
NOWRA	Fire Station	69 Bridge ROAD	Gasworks	Regulation under CLM Act not required	-34.87081582	150.6004881
NOWRA	Historically Filled Land	70 Bridge ROAD	Unclassified	Regulation under CLM Act not required	-34.87081809	150.6013231
NOWRA	Shell Coles Express Service Station	55 Kinghorne STREET	Service Station	Regulation under CLM Act not required	-34.87633757	150.6023481

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NOWRA	Former Hollingworth Scrap Yard	72-74 Jervis and 117 East STREET	Other Industry	Regulation under CLM Act not required	-34.88324216	150.6034361
NOWRA	Harry Sawkins Park	Bounded by Princes Hwy, Graham St & McGrath AVENUE	Gasworks	Regulation under CLM Act not required	-34.87093993	150.6037157
NOWRA EAST	Mobil Service Station	Lot 3 Kalandar STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.88850535	150.6093504
NYNGAN	Caltex Service Station	39-41 Pangee STREET	Service Station	Regulation under CLM Act not required	-31.56101006	147.1914997
NYNGAN	Caltex Service Station	126 Pangee STREET	Service Station	Regulation under CLM Act not required	-31.56482841	147.2002892
OAK FLATS	Shellharbour City Works Depot	132 Industrial ROAD	Other Industry	Regulation under CLM Act not required	-34.56546013	150.8087225
OBERON	CSR Ltd Property and King's Stockyard Creek	Off Endeavour STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.6922152	149.8686909
OBERON	Caltex Service Station and Depot	Lowes Mount ROAD	Service Station	Regulation under CLM Act not required	-33.69509055	149.8570553
OBERON	Oberon Timber Complex	Lowes Mount ROAD	Other Industry	Regulation under CLM Act not required	-33.69264862	149.8564588
OBERON	Former Shell Depot	32 O'Connell ROAD	Other Petroleum	Regulation under CLM Act not required	-33.6997172	149.8450057
OCEAN SHORES	Former Ocean Shores Service Station	Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-28.51270299	153.5301496
OCEAN SHORES	Caltex Service Station	Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-28.51270299	153.5301496
OLD GUILDFORD	Caltex Service Station	636-644 Woodville ROAD	Service Station	Regulation under CLM Act not required	-33.86670857	150.9879189
ORANGE	Electrolux Orange	5-17 Edward STREET	Other Industry	Contamination currently regulated under CLM Act	-33.29874849	149.1038449
ORANGE	Caltex Orange Depot	184 Byng STREET	Service Station	Regulation under CLM Act not required	-33.28285589	149.1050273
ORANGE	Woolworths Orange Service Station	357-361 Summer (Cnr William St) STREET	Service Station	Regulation under CLM Act not required	-33.28445811	149.1053604
ORANGE	BP Orange Service Station (Reliance Petroleum)	81 Summer STREET	Service Station	Regulation under CLM Act not required	-33.2825884	149.0951535
ORANGE	BP-Branded Lowes Petroleum Depot	197 - 201 Margaret STREET	Other Petroleum	Regulation under CLM Act not required	-33.27145977	149.1078103
ORANGE	Caltex Summer Street Service Station Orange	70-74 Summer (Cnr Hill St) STREET	Service Station	Regulation under CLM Act not required	-33.28311722	149.0940712
ORANGE	Lowes Petroleum (BP-branded) Service Station	76 Peisley STREET	Service Station	Regulation under CLM Act not required	-33.29025034	149.1027194
ORANGE	Former Mobil Service Station	24-28 Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.2866912	149.1066505
ORANGE	BP (Reliance Petroleum) Service Station Orange	56-60 Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.28980053	149.1086212
ORANGE	Former Mobil Service Station	168 Peisley STREET	Service Station	Regulation under CLM Act not required	-33.28525478	149.1037259
OURIMBAH	Palmdale Service Centre Pty Ltd	3130 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.3381336	151.374586
OURIMBAH	Shell Coles Express Service Station	78-80 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.3468202	151.3710098

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
OXLEY VALE	Hayes Transport Services	10 Manilla ROAD	Other Petroleum	Regulation under CLM Act not required	-31.06991417	150.9101381
OYSTER BAY	Shell Coles Express Service Station	20 Carvers ROAD	Service Station	Contamination currently regulated under CLM Act	-34.00934475	151.0758626
OYSTER COVE	Cove Marine Pty Ltd	60 Frederick STREET	Unclassified	Contamination currently regulated under POEO Act	-32.73549959	151.952446
PADDINGTON	7-Eleven Service Station	59 Oxford STREET	Service Station	Contamination currently regulated under CLM Act	-33.88322921	151.2205024
PADSTOW	Galvatech	49 Gow STREET	Metal Industry	Contamination currently regulated under POEO Act	-33.93808679	151.0346862
PADSTOW	Caltex Padstow	115 Fairford ROAD	Service Station	Regulation under CLM Act not required	-33.9434571	151.0345671
PADSTOW	Foseco Australia	7 Stuart STREET	Chemical Industry	Regulation under CLM Act not required	-33.94342957	151.0377316
PADSTOW	Sebel Furniture	Parts 64 and 92 Gow STREET	Other Industry	Regulation under CLM Act not required	-33.93606752	151.0322057
PADSTOW	Selleys / Dulux	1-29 Gow STREET	Unclassified	Under assessment	-33.93904125	151.0381725
PAGEWOOD	Former Email Site	Corner of Page Street and Holloway STREET	Other Industry	Contamination currently regulated under CLM Act	-33.94302462	151.2132036
PAMBULA	Offsite area (roadways) adjacent to United Service Station Pambula (former Shell)	Corner Quondola Street and Bullara STREET	Service Station	Regulation under CLM Act not required	-36.93104481	149.8746763
PARKES	Caltex Service Station Parkes	352-360 Clarinda STREET	Service Station	Regulation under CLM Act not required	-33.13317454	148.173643
PARKES	Former Caltex Parkes (Mugincoble) Depot - Eugowra Rd, Mugincoble	Eugowra ROAD	Service Station	Regulation under CLM Act not required	-33.19007031	148.224822
PARKES	BP Truckstop	(Newell Highway) 1 Forbes ROAD	Other Petroleum	Regulation under CLM Act not required	-33.14309226	148.1710282
PARKES	Former BP Telescope Service Station	339-341 Clarinda STREET	Service Station	Regulation under CLM Act not required	-33.13216152	148.1743239
PARKES	BP Reliance East End Service Station Parkes	46 Clarinda STREET	Service Station	Regulation under CLM Act not required	-33.14243539	148.1846227
PARKLEA	Caltex Parklea Service Station	Old Windsor (north of Miami Street) ROAD	Service Station	Regulation under CLM Act not required	-33.72427108	150.9388531
PARRAMATTA	BP Service Station	435 Church STREET	Service Station	Regulation under CLM Act not required	-33.80498714	151.0056151
PARRAMATTA	Coleman Oval Embankment	Cnr of Pitt STREET and Maquarie STREET	Unclassified	Regulation under CLM Act not required	-33.80441625	150.9954841
PARRAMATTA	7-Eleven (former Mobil) Service Station	81 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.80919769	151.0142894
PARRAMATTA	Parramatta Park Toilet Block Demolition	The Cresent Toilet Block Parramatta PARK	Unclassified	Regulation under CLM Act not required	-33.81054034	150.9961968
PAUPONG	Former Timber Treatment Plant	Off Paupong ROAD	Other Industry	Regulation under CLM Act not required	-36.57657408	148.6624998

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
PENDLE HILL	7-Eleven Service Station	217 Wentworth AVENUE	Service Station	Regulation under CLM Act not required	-33.8017814	150.9577994
PENNANT HILLS	Shell Coles Express Pennant Hills West	386 Pennant Hills ROAD	Service Station	Contamination currently regulated under CLM Act	-33.73936462	151.0680237
PENRITH	Crane Enfield Metals	Castlereagh ROAD	Metal Industry	Contamination currently regulated under CLM Act	-33.73734959	150.696442
PENRITH	Mirvac Industrial Site	2101 Castlereagh ROAD	Other Industry	Regulation under CLM Act not required	-33.73497514	150.6954097
PENRITH	7-Eleven (former Mobil) Service Station	212-222 Andrews ROAD	Service Station	Regulation under CLM Act not required	-33.73059678	150.6952571
PENRITH	Lowes Petroleum (Former Mobil) Depot Penrith	174 Coreen AVENUE	Other Petroleum	Regulation under CLM Act not required	-33.74484268	150.6980504
PENRITH	Caltex Service Station	Castlereagh Rd Cnr Lugard STREET	Service Station	Regulation under CLM Act not required	-33.73426843	150.6933382
PENRITH	BP Express Service Station	Corner Coreen Avenue and Castlereagh ROAD	Service Station	Regulation under CLM Act not required	-33.74385498	150.6925743
PENRITH	7-Eleven Service Station Penrith	30 Henry STREET	Service Station	Regulation under CLM Act not required	-33.75408799	150.7045594
PENRITH	Caltex Penrith Service Station	153 Coreen AVENUE	Service Station	Regulation under CLM Act not required	-33.74287244	150.6927071
PENRITH	Jet 60 Dry Cleaners	Shop 3 134-138 Henry STREET	Unclassified	Regulation under CLM Act not required	-33.75231953	150.6964541
PENSHURST	7-Eleven Service Station	612 Forest ROAD	Service Station	Regulation under CLM Act not required	-33.96153533	151.0793525
PENSHURST	Caltex Service Station	641 King Georges ROAD	Service Station	Regulation under CLM Act not required	-33.95985335	151.0891118
PERISHER VALLEY	Perisher Centre Loading Dock	Kosciuszko ROAD	Other Petroleum	Regulation under CLM Act not required	-36.40392862	148.4111593
PERISHER VALLEY	Perisher Ski Resort	Kosciuszko ROAD	Other Petroleum	Regulation under CLM Act not required	-36.41106374	148.4005469
PETERSHAM	Fanny Durack Aquatic Centre	Station STREET	Unclassified	Regulation under CLM Act not required	-33.89194583	151.151824
PHEASANTS NEST	7-Eleven Service Station	(Southbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.28291571	150.6394606
PHEASANTS NEST	7-Eleven (former Mobil) Service Station	(Northbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.28303112	150.6363145
PICTON	Coles Express Picton	93-99 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.16844337	150.6114236
PICTON	McDonalds	69 -71 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.16711877	150.6121524
PLUMPTON	Woolworths Service Station Plumpton (Plumpton Marketplace Shops)	260 Jersey ROAD	Service Station	Regulation under CLM Act not required	-33.74478874	150.8369408
PORT BOTANY	Sydney Ports Bulk Liquids Berth	Charlotte ROAD	Other Petroleum	Contamination currently regulated under POEO Act	-33.97418047	151.2123791
PORT BOTANY	Vopak B	20 Friendship ROAD	Chemical Industry	Regulation under CLM Act not required	-33.97946548	151.2121752

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
PORT BOTANY	Vopak A	49 Friendship ROAD	Chemical Industry	Regulation under CLM Act not required	-33.97426175	151.2206228
PORT BOTANY	Terminals	45 Friendship ROAD	Chemical Industry	Regulation under CLM Act not required	-33.97609287	151.2174402
PORT BOTANY	Bunnerong Canal	Between Brotherson Dock and Bumborah Point ROAD	Unclassified	Regulation under CLM Act not required	-33.96800557	151.2227633
PORT BOTANY	Port Botany Railway Corridors	Friendship ROAD	Other Industry	Regulation under CLM Act not required	-33.95467008	151.2178012
PORT BOTANY	Smith Bros	4 Bumborah Point ROAD	Other Petroleum	Regulation under CLM Act not required	-33.9681757	151.2239505
PORT BOTANY	Sydney Ports Marine Services	Interterminal Access ROAD	Other Petroleum	Under assessment	-33.97214594	151.2173122
PORT KEMBLA	Port Kembla Orica	Foreshore Road and Darcy ROAD	Other Industry	Contamination currently regulated under CLM Act	-34.47773583	150.9054545
PORT KEMBLA	Manildra Park	Flinders STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-34.46946878	150.8935731
PORT KEMBLA	BHP Area 21	Springhill ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-34.45244614	150.8676517
PORT KEMBLA	Coates Hire Facility (Eastern Portion)	1 Flinders STREET	Other Industry	Regulation under CLM Act not required	-34.47104817	150.89162
PORT KEMBLA	Shell Port Kembla CVRO	87-89 Flinders STREET	Other Petroleum	Regulation under CLM Act not required	-34.46964995	150.8953859
PORT KEMBLA	Darcy Road Rail Sidings	Darcy ROAD	Other Industry	Regulation under CLM Act not required	-34.47792834	150.9105503
PORT KEMBLA	No 2 Steelworks	Five Islands ROAD	Metal Industry	Regulation under CLM Act not required	-34.45965024	150.8844432
PORT KEMBLA	Port Kembla, Auszinc Metals and Alloys	Lot 2 Shellharbour ROAD	Metal Industry	Regulation under CLM Act not required	-34.49335414	150.8961205
PORT KEMBLA	South Yard Rail Sidings	Lot 3 Old Port ROAD	Unclassified	Regulation under CLM Act not required	-34.47500551	150.8951759
PORT KEMBLA	Caltex Service Station	16 Flinders STREET	Service Station	Regulation under CLM Act not required	-34.47058088	150.8945864
PORT KEMBLA	Port Kembla Steelworks Recycling Area	Springhill ROAD	Unclassified	Regulation under CLM Act not required	-34.45271181	150.8677127
PORT KEMBLA	Commonwealth Rolling Mills (CRM)	Old Port ROAD	Metal Industry	Regulation under CLM Act not required	-34.47476117	150.8974746
PORT KEMBLA	Port Kembla, Former Electricity Commission Site	Old Port Road/Christie Drive ROAD	Other Industry	Regulation under CLM Act not required	-34.46899143	150.8982854
PORT KEMBLA	Port Kembla Steelworks - Steelhaven	Five Islands ROAD	Other Industry	Regulation under CLM Act not required	-34.47605247	150.891144
PORT KEMBLA	Port Kembla Steelworks - No.1 Works Site	Five Islands ROAD	Metal Industry	Regulation under CLM Act not required	-34.47386606	150.8794912
PORT KEMBLA	Port Kembla Springhill Works	Springhill ROAD	Metal Industry	Regulation under CLM Act not required	-34.45905808	150.8749558
PORT KEMBLA	Port Kembla Copper Smelter	Military ROAD	Metal Industry	Under assessment	-34.4810006	150.9063426
PORT MACQUARIE	Former Mobil Depot	211 Lake ROAD	Other Petroleum	Regulation under CLM Act not required	-31.44688513	152.8864499

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
PORT MACQUARIE	Caltex Service Station	112-114 Gordon STREET	Service Station	Regulation under CLM Act not required	-31.43491709	152.9047618
PORT MACQUARIE	Caltex Port Macquarie Service Station	29 Lord STREET	Service Station	Regulation under CLM Act not required	-31.43326436	152.9169873
PORT MACQUARIE	Coles Myer	43 John Oxley DRIVE	Service Station	Regulation under CLM Act not required	-31.45741442	152.8739626
PORT MACQUARIE	Air BP Avgas Facility	Oliver DRIVE	Other Petroleum	Regulation under CLM Act not required	-31.43227222	152.8681083
PORT MACQUARIE	Former Mobil Service Station	Corner Oxley Highway and Major Innes DRIVE	Service Station	Regulation under CLM Act not required	-31.45738931	152.873956
PORT MACQUARIE	Port Macquarie Council Depot	Koala STREET	Unclassified	Regulation under CLM Act not required	-31.45341586	152.9032764
PORT MACQUARIE	Shell Coles Express Port Macquarie Service Station	121 Gordon STREET	Service Station	Regulation under CLM Act not required	-31.4343131	152.9046869
PORT MACQUARIE	Caltex Service Station	92 Hastings River DRIVE	Service Station	Regulation under CLM Act not required	-31.42934052	152.8830188
PORT MACQUARIE	Caltex Service Station	12-14 Bolwarra ROAD	Service Station	Regulation under CLM Act not required	-31.45015286	152.8854769
PORT MACQUARIE	Car park	28 Hayward STREET	Other Industry	Regulation under CLM Act not required	-31.43385131	152.9072399
PORTLAND	Ivanhoe Colliery	Pipers Flat ROAD	Other Industry	Regulation under CLM Act not required	-33.36595748	150.0099577
PORTLAND	Mt Piper Power Station	350 Boulder ROAD	Other Petroleum	Regulation under CLM Act not required	-33.35581541	150.0350801
PRAIRIEWOOD	7-Eleven (former Caltex) Service Station	485-487 Smithfield ROAD	Service Station	Regulation under CLM Act not required	-33.87102509	150.9031383
PROSPECT	7-Eleven (former Mobil) Service Station Prospect	354 Flushcombe ROAD	Service Station	Regulation under CLM Act not required	-33.79541624	150.9049417
PROSPECT	Pincott's Cottage, Gate C1	Off Reservoir ROAD	Unclassified	Regulation under CLM Act not required	-33.81589773	150.9144343
PROSPECT	Gatehouse, 544 Reservoir Road	544 Reservoir ROAD	Unclassified	Regulation under CLM Act not required	-33.81049244	150.9157439
PROSPECT	Cottage 3, William Lawson Drive	William Lawson DRIVE	Unclassified	Regulation under CLM Act not required	-33.81490331	150.9149885
PUNCHBOWL	Former BP Service Station	1375 Canterbury Road, corner Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.93170424	151.0537302
PUNCHBOWL	Caltex Service Station Punchbowl	1285-1289 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.93146308	151.0596348
PUNCHBOWL	Punchbowl Laundry	42-44 Belmore ROAD	Chemical Industry	Under assessment	-33.93582701	151.0562638
PUTNEY	Putney Marina	20 Waterview STREET	Other Industry	Regulation being finalised	-33.82608091	151.1003966
PYMBLE	Caltex Service Station	1117 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.74102977	151.1385257
PYMBLE	Shell Coles Express Service Station	21 Ryde ROAD	Service Station	Regulation under CLM Act not required	-33.75198512	151.1438115
PYMBLE	Pymble West Dry Cleaners	6 Philip MALL	Other Industry	Under assessment	-33.76109009	151.1284329

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
PYRMONT	Former Council Works Depot (Fig and Wattle Depot)	14-26 Wattle STREET	Other Industry	Under assessment	-33.8752655	151.1942645
QUAKERS HILL	7-Eleven (former Mobil) Service Station	83 Lalor ROAD	Service Station	Regulation under CLM Act not required	-33.72759077	150.8966764
QUAKERS HILL	BP Branded Parkway (Former Caltex) Service Station Quakers	450 Quakers Hill PARKWAY	Service Station	Regulation under CLM Act not required	-33.72998613	150.9023617
QUEANBEYAN	Former Mobil Service Station	153 Uriarra ROAD	Service Station	Regulation under CLM Act not required	-35.34425514	149.2148687
QUEANBEYAN	Bill Lilley Automotive	169 Crawford STREET	Service Station	Regulation under CLM Act not required	-35.35138121	149.232486
QUEANBEYAN	Woolworths Queanbeyan Service Station	196 Crawford (Cnr Morisset St) STREET	Service Station	Regulation under CLM Act not required	-35.35163055	149.2335759
QUEANBEYAN	Caltex Queanbeyan Service Station	88 Macquoid (also known as Bungendore Rd) STREET	Service Station	Regulation under CLM Act not required	-35.34930535	149.2438607
QUEANBEYAN	Former Mobil Emoleum Depot	109-111 High STREET	Other Petroleum	Regulation under CLM Act not required	-35.3396115	149.237556
QUEANBEYAN	Former Caltex Depot	20-30 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-35.34523	149.22333
QUEANBEYAN EAST	BP-Branded Service Station Queanbeyan	50 Yass ROAD	Service Station	Regulation under CLM Act not required	-35.34126641	149.2445103
QUEANBEYAN WEST	Caltex Service Station	Lanyon Dr Cnr Mccrae St (1 Suraci Place) STREET	Service Station	Regulation under CLM Act not required	-35.36372923	149.2067531
QUIRINDI	Former Mobil Depot Quirindi	4-6 Cross STREET	Other Petroleum	Regulation under CLM Act not required	-31.49903355	150.681972
QUIRINDI	Caltex Service Station, Quirindi	199-201 George STREET	Service Station	Regulation under CLM Act not required	-31.50654793	150.6803589
QUIRINDI	Tamarang Servicentre Quirindi	113-117 Station STREET	Service Station	Under assessment	-31.50179204	150.6814611
RAMSGATE	Shell Coles Express Service Station	Grand Parade cnr Ramsgate ROAD	Service Station	Regulation under CLM Act not required	-33.98537988	151.1471234
RANDWICK	7-Eleven Service Station	126-130 Barker STREET		Contamination currently regulated under CLM Act	-33.92096152	151.2355927
RANDWICK	Service Station, Randwick	33-37 Carrington ROAD	Service Station	Contamination currently regulated under CLM Act	-33.90655015	151.2525065
RANDWICK	Caltex Service Station	2 Alison ROAD	Service Station	Regulation under CLM Act not required	-33.9065752	151.2320697
RANDWICK	Metro Petroleum	345 Avoca STREET	Service Station	Regulation under CLM Act not required	-33.92544832	151.2396799
RAVENSWORTH	Ravensworth Operations Narama Mine	Lemington ROAD	Other Industry	Regulation under CLM Act not required	-32.47115903	151.0359579
RAVENSWORTH	Cumnock Colliery	Pikes Gully ROAD	Other Industry	Regulation under CLM Act not required	-32.40218281	150.9960082
RAYMOND TERRACE	Shell Coles Express Raymond Terrace	107 Adelaide (formerly Pacific Highway) STREET	Service Station	Regulation under CLM Act not required	-32.76110922	151.7492847
RAYMOND TERRACE	Caltex Service Station Raymond Terrace	136 Adelaide (Cnr Adelaide and Glenelg St) STREET	Service Station	Regulation under CLM Act not required	-32.76503842	151.7425264
RAYMOND TERRACE	Former Motor Registry	53 William STREET	Other Petroleum	Regulation under CLM Act not required	-32.76286473	151.7445839

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
REDFERN	BP Service Station	116 Regent STREET	Service Station	Regulation under CLM Act not required	-33.89367876	151.1995256
REDFERN	Former Printing Works	101a Marriott STREET	Other Industry	Regulation under CLM Act not required	-33.89512556	151.2113422
REDFERN	BP-branded Jasbe Surry Hills	411 Cleveland STREET	Service Station	Regulation under CLM Act not required	-33.89183974	151.2132466
REVESBY	Bituminous Products	33-35 Violet STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.93702092	151.0067896
REVESBY	Mirotone Pty Ltd	21 Marigold STREET	Chemical Industry	Contamination currently regulated under POEO Act	-33.93559608	151.0002207
REVESBY	Dorf Clark Industries	184-194 Milperra ROAD	Metal Industry	Regulation under CLM Act not required	-33.93387149	151.000553
REVESBY	Caltex Service Station Revesby	181 The River ROAD	Service Station	Regulation under CLM Act not required	-33.95573605	151.0171779
RHODES	Former Allied Feeds site	Walker STREET	Other Industry	Contamination was addressed via the planning process (EP&A Act)	-33.82465376	151.0870401
RHODES	Homebush Bay Sediments adjoining the former UCAL and Allied Feeds sites		Chemical Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.8263749	151.0839216
RHODES	Former UCAL site	Walker STREET	Chemical Industry	Ongoing maintenance required to manage residual contamination	-33.82727505	151.0853195
RHODES	Homebush Bay sediments adjoining former Berger Paint factory	Oulton AVENUE	Chemical Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.83535308	151.083238
RHODES	Former Glad factory site	10-16 Marquet STREET	Chemical Industry	Regulation under CLM Act not required	-33.82884048	151.0848716
RICHMOND	Caltex Richmond Service Station	98 March (Cnr East Market St) STREET	Service Station	Regulation under CLM Act not required	-33.59937996	150.7514483
RIVERSTONE	Axalta Coating Systems	15-23 Melbourne ROAD	Other Industry	Regulation under CLM Act not required	-33.6636649	150.8557519
RIVERSTONE	7-Eleven Riverstone	55 Garfield ROAD	Service Station	Regulation under CLM Act not required	-33.67802232	150.8635246
RIVERSTONE	Woolworths Vineyard Service Station, Riverstone	1 Woodland Street, corner of Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.65607641	150.8724067
RIVERSTONE	Vacant Commercial Land	88-94 Junction ROAD	Unclassified	Regulation under CLM Act not required	-33.66226398	150.8789967
RIVERWOOD	7-Eleven Riverwood	30 Bonds ROAD	Service Station	Regulation under CLM Act not required	-33.9523701	151.0583887
ROCKDALE	7-Eleven (former Mobil) Service Station	293 West Botany STREET	Service Station	Regulation under CLM Act not required	-33.94995672	151.1484667
ROCKDALE	7-Eleven Service Station	99 Railway STREET	Service Station	Regulation under CLM Act not required	-33.95247322	151.1356785
ROOTY HILL	7-Eleven (former Mobil) Service Station	106 Rooty Hill (South) ROAD	Service Station	Regulation under CLM Act not required	-33.78036181	150.8501998
ROOTY HILL	7-Eleven (former Mobil) Service Station	1042 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.78214955	150.8287656
ROSE BAY	Rose Bay Budget Service station	638 -646 New South Head ROAD	Service Station	Contamination currently regulated under CLM Act	-33.87062149	151.2677617

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
ROSE BAY	Caltex Rose Bay Service Station	488 Old South Head ROAD	Service Station	Regulation under CLM Act not required	-33.87475145	151.2723847
ROSEBERY	Rosebery Service Station	395 Gardeners ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.92246784	151.2024589
ROSEBERY	Caltex Rosebery Service Station	321 Gardeners (Cnr Macquarie St) ROAD	Service Station	Regulation being finalised	-33.92302898	151.2059541
ROSEBERY	Autofoil P/L	2 Mentmore AVENUE	Other Industry	Regulation under CLM Act not required	-33.91121318	151.2054882
ROSEBERY	Former Industrial Site (Former Electroplating Facility)	108 Dunning AVENUE	Other Industry	Regulation under CLM Act not required	-33.91630811	151.201557
ROSEHILL	James Hardie Australia and former James Hardie lands	Devon STREET	Other Industry	Contamination currently regulated under CLM Act	-33.82539019	151.0339466
ROSEHILL	James Hardie Factory (former, western portion)	181 James Ruse DRIVE	Other Industry	Contamination currently regulated under CLM Act	-33.81605834	151.0238145
ROSELANDS	Roselands Shopping Centre	24 Roseland AVENUE	Service Station	Regulation under CLM Act not required	-33.93499281	151.0691284
ROSELANDS	7-Eleven (former Mobil) Service Station	91 Canary's ROAD	Service Station	Regulation under CLM Act not required	-33.93356078	151.0736274
ROSEVILLE	Mobil Service Station	2 Boundary STREET	Service Station	Regulation under CLM Act not required	-33.78769177	151.1796011
ROSEVILLE CHASE	Coles Express Roseville Chase	388 Eastern Valley WAY	Service Station	Regulation under CLM Act not required	-33.78337722	151.1973901
ROZELLE	Caltex Service Station	121 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.86252996	151.168497
ROZELLE	7-Eleven (former Mobil) Service Station	178-180 (176-184) Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8630268	151.1680857
ROZELLE	Kennards Rozelle	15-39 Wellington STREET	Other Petroleum	Regulation under CLM Act not required	-33.86176757	151.1686519
ROZELLE	White Bay Power Station	Robert STREET	Other Industry	Regulation under CLM Act not required	-33.86674636	151.1772204
ROZELLE	BP Service Station	Corner Darling Street and Thornton STREET	Service Station	Regulation under CLM Act not required	-33.8591647	151.1716591
RUFUS RIVER	SA Water Depot - Rufus River	Old Wentworth STREET	Other Petroleum	Regulation under CLM Act not required	-34.04191512	141.2679475
RUSHCUTTERS BAY	d'Albora Marinas	1b New Beach ROAD	Other Industry	Contamination currently regulated under POEO Act	-33.87351297	151.2345082
RUTHERFORD	Rutherford Transpacific	11 Kyle STREET	Other Industry	Regulation under CLM Act not required	-32.71105203	151.500311
RUTHERFORD	Shell Coles Express Service Station Rutherford	118 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.7208703	151.5394595
RUTHERFORD	Caltex Service Station	134-138 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.7202589	151.5381526
RUTHERFORD	Transpacific Industrial Services/Nationwide Oil Pty Ltd	99 Kyle STREET	Chemical Industry	Regulation under CLM Act not required	-32.71262159	151.5013865
RYDALMERE	Mitsubishi Electric	348 Victoria ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.81040138	151.0392812
RYDALMERE	Rheem Australia	1 Alan STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.81545013	151.0295476

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
RYDALMERE	Caltex Service Station	309 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81196193	151.0371185
RYDALMERE	BP Service Station	265 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8109483	151.0328101
RYDALMERE	Hunter Douglas	Victoria ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81009112	151.0384732
RYDALMERE	United Petroleum (former 7-Eleven) Service Station Rydalmere	262-272 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81006724	151.032377
RYDE	Shell Coles Express Ryde	45 Lane Cove ROAD	Service Station	Regulation under CLM Act not required	-33.80726028	151.109981
RYDE	Caltex Service Station	110 Lane Cove ROAD	Service Station	Regulation under CLM Act not required	-33.80142973	151.1137925
RYDE	7-Eleven (former Mobil) Service Station	326-328 Blaxland ROAD	Service Station	Regulation under CLM Act not required	-33.80242183	151.1004278
RYDE	Ryde Bus Depot	51 - 75 Buffalo ROAD	Other Petroleum	Regulation under CLM Act not required	-33.81679771	151.1225255
SANCTUARY POINT	United Service Station, Sanctuary Point	147 Larmer AVENUE	Service Station	Regulation under CLM Act not required	-35.09918861	150.6329537
SANDGATE	North Limited Storage Handling facility	Maitland ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-32.86598453	151.7012866
SANDGATE	Caltex Service Station Sandgate	162 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.86501596	151.706161
SANS SOUCI	Former 7-Eleven Ramsgate	368 Rocky Point ROAD	Service Station	Contamination currently regulated under CLM Act	-33.98631668	151.135849
SANS SOUCI	Former Service Station	542-544 Rocky Point ROAD	Service Station	Contamination was addressed via the planning process (EP&A Act)	-33.99376148	151.1316131
SANS SOUCI	7-Eleven (Former Mobil) Service Station	474 Rocky Point ROAD	Service Station	Regulation under CLM Act not required	-33.99088939	151.1333779
SANS SOUCI	Kendall Street Reserve	Lawson Street and Kendall STREET	Landfill	Under assessment	-33.99966431	151.13005
SCONE	Shell Coles Express Service Station	91- 93 Kelly STREET	Service Station	Contamination currently regulated under CLM Act	-32.04715941	150.8676346
SCONE	BP - Former Depot	Scone St, Guernsey St & Susan STREET	Service Station	Contamination formerly regulated under the CLM Act	-32.04599284	150.8662046
SCONE	Scone Works Depot	220 Susan STREET	Other Petroleum	Regulation under CLM Act not required	-32.04444892	150.879152
SCONE	Mobil Scone Airport Elt	8 Walter Pye AVENUE	Other Petroleum	Regulation under CLM Act not required	-32.03596733	150.8323698
SEVEN HILLS	Australian Waste Oil Refineries	27 Powers ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.77536127	150.9511122
SEVEN HILLS	7-Eleven (Former Mobil) Service Station Seven Hills	151 Prospect HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76894646	150.9427004
SEVEN HILLS	Australia Post	3 Powers ROAD	Unclassified	Regulation under CLM Act not required	-33.77434009	150.9395495
SEVEN HILLS	Transport Infrastructure Development Corporation	1 Powers ROAD	Other Industry	Regulation under CLM Act not required	-33.77387442	150.9379787
SEVEN HILLS	BP-branded Jasbe Petroleum Service Station	156 Prospect HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76906502	150.9414821

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
SEVEN HILLS	Caltex Service Station	38 Abbott ROAD	Service Station	Regulation under CLM Act not required	-33.76692649	150.9548271
SEVEN HILLS	Caltex Service Station Seven Hills	105 Station ROAD	Service Station	Regulation under CLM Act not required	-33.77435881	150.9448733
SHELLY BEACH	Former Shelly Beach Landfill	Oaks AVENUE	Landfill	Regulation under CLM Act not required	-33.36700551	151.4913631
SHORTLAND	Former Astra St landfill	1, 2 & 28 Astra STREET	Landfill	Contamination currently regulated under CLM Act	-32.86716222	151.6966948
SHORTLAND	Tuxford Park landfill	10 King STREET	Landfill	Regulation under CLM Act not required	-32.87721139	151.6936837
SHORTLAND	Former Lorna St landfill	8/475 Sandgate ROAD	Landfill	Regulation under CLM Act not required	-32.87888726	151.7023245
SHORTLAND	7-Eleven (Former BP) Service Station	298-302 Sandgate ROAD	Service Station	Regulation under CLM Act not required	-32.8861645	151.6953912
SILVERWATER	Silverwater Landfill	Carnarvon ROAD	Landfill	Regulation under CLM Act not required	-33.83506394	151.033214
SILVERWATER	Vacant property	103-105 Silverwater ROAD	Other Industry	Regulation under CLM Act not required	-33.83831374	151.0472576
SILVERWATER	Storage Facility	54-58 Derby STREET	Unclassified	Under assessment	-33.83855869	151.0478649
SILVERWATER	Former Printing Facility	46-58 Derby STREET	Unclassified	Under assessment	-33.83855869	151.0478649
SILVERWATER	Singleton Gasworks	46-58 Derby STREET	Unclassified	Contamination currently regulated under CLM Act	-33.83855869	151.0478649
SINGLETON	Singleton Gasworks	55-57 John STREET	Gasworks	Contamination currently regulated under CLM Act	-32.56774715	151.1658188
SINGLETON	Putty Saw Mill	(via Singleton) Putty ROAD	Unclassified	Contamination currently regulated under CLM Act	-32.99958725	150.7111684
SINGLETON	BP Service Station Singleton	53 George (Cnr Macquarie St) STREET	Other Petroleum	Regulation under CLM Act not required	-32.56182325	151.1748054
SINGLETON	Shell Coles Express Service Station	69-73 George STREET	Service Station	Regulation under CLM Act not required	-32.56297156	151.1755215
SINGLETON	Bulga Surface Operations	Broke ROAD	Other Industry	Regulation under CLM Act not required	-32.68325751	151.1206158
SINGLETON	Mobil Singleton Airport Elt	74B Range ROAD	Other Petroleum	Regulation under CLM Act not required	-32.60270846	151.1944828
SINGLETON	NSW Mines Rescue Services - Singleton	6 Lachlan AVENUE	Other Industry	Regulation under CLM Act not required	-32.54537821	151.156584
SMITHFIELD	Former Landfill	Little STREET	Landfill	Contamination being managed via the planning process (EP&A Act)	-33.85025253	150.9411561
SMITHFIELD	Caltex Smithfield	16-18 Tait STREET	Service Station	Regulation under CLM Act not required	-33.84596441	150.9435497
SMITHFIELD	Freestones	1 Hume ROAD	Other Petroleum	Regulation under CLM Act not required	-33.83577694	150.9310112
SMITHFIELD	Liquip International	13 Hume ROAD	Other Industry	Regulation under CLM Act not required	-33.83802635	150.9319034
SMITHFIELD	Coles Express (former Mobil) Service Station	678 The Horsley Drive, corner Smithfield ROAD	Service Station	Regulation under CLM Act not required	-33.85376154	150.9400104
SOUTH ALBURY	BP Border Service Station	Corner Ebden Street and Wodonga PLACE	Service Station	Contamination currently regulated under CLM Act	-36.08875942	146.9093882

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SOUTH BOWENFELS	Shell Coles Express Service Station	Lot 1 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.50589001	150.1238487
SOUTH COOGEE	Caltex South Coogee Service Station	169-173 Malabar ROAD	Service Station	Regulation under CLM Act not required	-33.93233184	151.2574377
SOUTH GRAFTON	Shell Coles Express Service Station	91 Bent STREET	Service Station	Regulation under CLM Act not required	-29.70605829	152.9400329
SOUTH GRAFTON	Former United (former Mobil) Service Station	Corner Pacific Highway and Charles STREET	Service Station	Regulation under CLM Act not required	-29.70814828	152.9412928
SOUTH GRAFTON	Former Caltex Service Station	46-58 Schwinghammer STREET	Service Station	Regulation under CLM Act not required	-29.71128273	152.9458313
SOUTH GRAFTON	Former Caltex Depot South Grafton	72-82 Swallow ROAD	Other Petroleum	Regulation under CLM Act not required	-29.73168549	152.944024
SOUTH GRAFTON	Caltex Service Station	Pacific Hwy Cnr Gwyder HIGHWAY	Service Station	Regulation under CLM Act not required	-29.70739015	152.9425508
SOUTH KEMPSEY	Caltex Service Station	52 Lachlan STREET	Service Station	Regulation under CLM Act not required	-31.09361084	152.8370796
SOUTH LISMORE	North Coast Petroleum (Former Mobil) Depot Lismore	19-21 Elliot ROAD	Other Petroleum	Regulation under CLM Act not required	-28.81212046	153.2661935
SOUTH LISMORE	Former Mobil Service Station	126 - 128 Union STREET	Service Station	Regulation under CLM Act not required	-28.81242175	153.267541
SOUTH LISMORE	Caltex Service Station	237 Union STREET	Service Station	Regulation under CLM Act not required	-28.82052708	153.2648111
SOUTH LISMORE	Former Mobil Depot	26-32 Phyllis STREET	Other Petroleum	Regulation under CLM Act not required	-28.81005206	153.2660073
SOUTH MURWILLUMBAH	Former Caltex Depot	39 Lundberg DRIVE	Service Station	Regulation under CLM Act not required	-28.332622	153.4212884
SOUTH MURWILLUMBAH	Caltex Service Station	1-7 Buchanan (Cnr Tweed Valley Way) STREET	Service Station	Regulation under CLM Act not required	-28.32687988	153.4093274
SOUTH MURWILLUMBAH	Former Mobil Depot	45 Wardrop STREET	Other Petroleum	Regulation under CLM Act not required	-28.33421395	153.3993772
SOUTH NOWRA	Caltex South Nowra	100 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.90516081	150.6029621
SOUTH PENRITH	7-Eleven Service Station	45 Aspen STREET	Service Station	Regulation under CLM Act not required	-33.77727694	150.7107228
SOUTH TAMWORTH	Caltex Service Station	2 Kathleen Street, corner Kent STREET	Service Station	Regulation under CLM Act not required	-31.10361712	150.9186343
SOUTH WENTWORTHVILLE	Aldi Stores Development	331-339 Great Western HIGHWAY	Metal Industry	Regulation under CLM Act not required	-33.81605854	150.9697429
SOUTH WENTWORTHVILLE	Caltex Service Station	313 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.81643692	150.9718802
SOUTH WEST ROCKS	Former Trial Bay Caltex Depot	Phillip DRIVE	Other Petroleum	Regulation under CLM Act not required	-30.89190078	153.0573056
SOUTH WEST ROCKS	Former Shell Trial Bay Depot	Phillip DRIVE	Other Petroleum	Regulation under CLM Act not required	-30.89273836	153.0612772
SOUTH WEST ROCKS	Residential area and Reserve opposite Former Caltex terminal	Phillip DRIVE	Other Petroleum	Regulation under CLM Act not required	-30.89172594	153.0573164
SPRINGVALE	Springvale Colliery	Castlereagh HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.40334736	150.1070462

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ST CLAIR	7-Eleven (former Mobil) Service Station	4 Endeavour AVENUE	Service Station	Regulation under CLM Act not required	-33.79430926	150.7885793
ST IVES	Shell Service Station	179-181 Mona Vale ROAD	Service Station	Contamination currently regulated under CLM Act	-33.73124859	151.1575827
ST IVES	7-Eleven (former Mobil) St Ives Service Station	157-159 Mona Vale (Cnr Putarri Ave) ROAD	Service Station	Regulation under CLM Act not required	-33.73265301	151.1563899
ST IVES	Caltex Service Station	452 Mona Vale ROAD	Service Station	Regulation under CLM Act not required	-33.70752272	151.187545
ST IVES	Caltex Service Station	164 Mona Vale ROAD	Service Station	Regulation under CLM Act not required	-33.7307595	151.1570462
ST IVES	Caltex Service Station	363 Mona Vale ROAD	Service Station	Regulation under CLM Act not required	-33.7168971	151.1735263
ST MARYS	Former Woolworths Service Station	120-128 Forrester ROAD	Service Station	Regulation under CLM Act not required	-33.75525115	150.7752897
ST MARYS	7-Eleven (former Mobil) Service Station	2 Christie STREET	Service Station	Regulation under CLM Act not required	-33.74790843	150.7767667
ST MARYS	7-Eleven (former Mobil) Service Station	2 Wilson STREET	Service Station	Regulation under CLM Act not required	-33.77790415	150.771689
ST MARYS	Integral Energy Mt Druitt Transmission Substation	69 Kurrajong North ROAD	Other Industry	Regulation under CLM Act not required	-33.76376093	150.7921691
ST MARYS	Caltex St Marys Service Station	Wordoo St Cnr Forrester ROAD	Service Station	Regulation under CLM Act not required	-33.75334263	150.7755489
ST MARYS	Solveco	38 LINKS ROAD	Unclassified	Under assessment	-33.738804	150.771739
ST MARYS	Chemcolour Industries Ltd	19-25 Anne STREET	Chemical Industry	Under assessment	-33.75027071	150.7725397
ST PETERS	Former Tidyburn Facility	53 Barwon Park ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.9130091	151.1809912
ST PETERS	Cooks River Rail Terminal	20 Canal ROAD	Unclassified	Regulation under CLM Act not required	-33.91943986	151.1726689
ST PETERS	Camdenville Park	May STREET	Other Industry	Regulation under CLM Act not required	-33.90911815	151.176951
ST PETERS	BP Express Service Station	2 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90982281	151.1809936
ST PETERS	Former Industrial Manufacturing Facility (Taubman's Paints)	75 Mary STREET	Other Industry	Regulation under CLM Act not required	-33.91307297	151.1731383
STANMORE	125 Corunna Road	125 Corunna ROAD	Unclassified	Regulation under CLM Act not required	-33.88937382	151.1644589
STRATHFIELD	7-Eleven (former Mobil) Service Station	577 Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.88736091	151.0743474
STRATHFIELD SOUTH	Former Landfill Site	7-9 Dunlop STREET	Landfill	Regulation under CLM Act not required	-33.89509698	151.0796751
STROUD	Stroud Fuel Supplies (Former Caltex) Service Station	1 Cowper STREET	Service Station	Regulation under CLM Act not required	-32.39092749	151.9563089
SUFFOLK PARK	BP Service Station	207-209 Broken Head ROAD	Service Station	Regulation under CLM Act not required	-28.68800088	153.6083821
SUFFOLK PARK	Suffolk Park dip site	Cnr Broken Head Road & Beech DRIVE	Cattle Dip	Regulation under CLM Act not required	-28.6874242	153.6072824

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SURRY HILLS	Woolworths Petrol Surry Hills	475 Cleveland STREET	Service Station	Regulation under CLM Act not required	-33.89203644	151.216217
SURRY HILLS	Former Legion Cabs (Trading) Cooperative	81 & 81A (Formerly 69 - 81) Foveaux STREET	Service Station	Regulation under CLM Act not required	-33.88470082	151.2107944
SURRY HILLS	Ausgrid Road Reserve	Mary STREET	Other Industry	Regulation under CLM Act not required	-33.88292195	151.2095176
SUTHERLAND	United Service Station and Sutherland Reservoir	1 to 3 Oxford STREET	Service Station	Contamination currently regulated under CLM Act	-34.029532	151.0579906
SUTHERLAND	7-Eleven Service Station	693 Old Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.02976735	151.0588789
SUTTON FOREST	Coles Express Sutton Forest West	Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.60808989	150.2250592
SWANSEA	Caltex Service Station	126 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.08811841	151.6381764
SWANSEA	Swansea 1 - Wastewater Pumping Station	137 and 137a Northcote AVENUE	Other Industry	Under assessment	-33.09745672	151.6473257
SYDENHAM	SRA Land	117 Railway PARADE	Other Industry	Regulation under CLM Act not required	-33.91560723	151.1656846
SYDENHAM	Sydenham XPT Maintenance Facility	Way STREET	Other Industry	Regulation under CLM Act not required	-33.91698468	151.1614089
SYDNEY	Interpro House (OSP 46581)	447 Kent STREET	Other Petroleum	Regulation under CLM Act not required	-33.87225413	151.204761
SYDNEY OLYMPIC PARK	Haslams Creek South Area 3	At Kronos Hill, Kevin Coombes AVENUE	Landfill	Contamination formerly regulated under the CLM Act	-33.84113059	151.0602966
SYDNEY OLYMPIC PARK	Bicentennial Park	Bicentennial DRIVE	Landfill	Ongoing maintenance required to manage residual contamination	-33.84456248	151.0788116
SYDNEY OLYMPIC PARK	Former Golf Driving Range Landfill	Sarah Durack AVENUE	Landfill	Ongoing maintenance required to manage residual contamination	-33.85358517	151.0713987
SYDNEY OLYMPIC PARK	Kronos Hill Landfill	Kevin Coombes AVENUE	Landfill	Ongoing maintenance required to manage residual contamination	-33.84014442	151.0649521
SYDNEY OLYMPIC PARK	Wilson Park (Former oil gas plant site)	Newington ROAD	Gasworks	Ongoing maintenance required to manage residual contamination	-33.82633586	151.0534322
SYDNEY OLYMPIC PARK	Woo-la-ra Landfill	Hill ROAD	Landfill	Ongoing maintenance required to manage residual contamination	-33.82695807	151.07282
SYDNEY OLYMPIC PARK	Aquatic Centre Carpark Landfill	Shane Gould AVENUE	Landfill	Ongoing maintenance required to manage residual contamination	-33.85093439	151.0656713
SYDNEY OLYMPIC PARK	Blaxland Common Landfill	Jamieson STREET	Landfill	Ongoing maintenance required to manage residual contamination	-33.82638382	151.05972
SYDNEY OLYMPIC PARK	RMS Western Precinct	14A-14E and 16 Hill ROAD	Other Petroleum	Regulation under CLM Act not required	-33.82239777	151.0758664
SYLVANIA	Caltex Service Station - Sylvania Heights	414-416 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.02361051	151.0895394
SYLVANIA	Caltex Service Station	61 Port Hacking ROAD	Service Station	Regulation under CLM Act not required	-34.0140089	151.104212
TALBINGO	T3 Spoil dump and adjoining river sediments	Off Snowy Mountains HIGHWAY	Landfill	Contamination formerly regulated under the CLM Act	-35.6177268	148.2926158
TALBINGO	Old Town Landfill	Bridle STREET	Landfill	Regulation under CLM Act not required	-35.59018237	148.3041771

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TALBINGO	Former grit blasting site	Old Damsite ROAD	Other Industry	Regulation under CLM Act not required	-35.60894551	148.3030165
TAMINDA	Mobil Depot	9 Hinkler ROAD	Other Petroleum	Regulation under CLM Act not required	-31.09584286	150.9040493
TAMWORTH	Coles Express Tamworth	251 - 253 Goonoo Goonoo ROAD	Service Station	Contamination currently regulated under CLM Act	-31.11058167	150.9236721
TAMWORTH	Gunnedah Road Site	49 GUNNEDAH ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-31.09574904	150.9021583
TAMWORTH	Caltex Tamworth Service Station	109 Gunnedah ROAD	Service Station	Regulation under CLM Act not required	-31.09723226	150.8955299
TAMWORTH	Curlew Crescent	19-29 Curlew CRESCENT	Metal Industry	Regulation under CLM Act not required	-31.06963607	150.9069306
TAMWORTH	Former Service Station, Fitzpatrick Super Fund, Tamworth	210 Goonoo Goonoo ROAD	Service Station	Regulation under CLM Act not required	-31.10613594	150.9234143
TAMWORTH	Elovera Former Sheep Dip	730 Ascot Calala ROAD	Cattle Dip	Regulation under CLM Act not required	-31.1801846	150.962897
TAMWORTH	Housing NSW	29 -33 White STREET	Other Petroleum	Regulation under CLM Act not required	-31.0915651	150.9357811
TAMWORTH	Former Mobil Service Station	373-375 Armidale ROAD	Service Station	Regulation under CLM Act not required	-31.10122679	150.9441341
TAMWORTH	Kensell's Mitsubishi	11-14 Kable AVENUE	Other Petroleum	Regulation under CLM Act not required	-31.08921565	150.9273063
TAMWORTH	Caltex Star Tamworth	21 White STREET	Service Station	Regulation under CLM Act not required	-31.09255137	150.9341709
TAMWORTH	Former Service Station Tamworth	(Cnr Scott Rd) 254-256 Goonoo Goonoo ROAD	Service Station	Regulation under CLM Act not required	-31.1118945	150.9228523
TAMWORTH	BP Tamworth Service Station and Depot	27-29 Gunnedah ROAD	Service Station	Under assessment	-31.09642128	150.9058193
TARCUTTA	Mobil Service Station	(Hume Highway) 32 Sydney STREET	Service Station	Contamination formerly regulated under the CLM Act	-35.2772942	147.73574
TAREE	Caltex Taree	12 Pitt STREET	Service Station	Regulation under CLM Act not required	-31.90551738	152.4783334
TAREE	Former Caltex Depot	44 Stevenson STREET	Other Petroleum	Regulation under CLM Act not required	-31.90563595	152.4640848
TAREE	Former BP Service Station (Reliance Petroleum)	150 Manning River DRIVE	Service Station	Regulation under CLM Act not required	-31.93842026	152.4682056
TAREE	Former Shell Depot	53-55 Stevenson STREET	Other Petroleum	Regulation under CLM Act not required	-31.90514622	152.4649706
TAREE	United Service Station and Former Mobil Depot	85 Muldoon Street, corner Grey Gum ROAD	Service Station	Regulation under CLM Act not required	-31.89744109	152.4508569
TAREE	Caltex Service Station	104-106 Commerce STREET	Service Station	Regulation under CLM Act not required	-31.90720519	152.4500926
TAREE	Footpath in front of the former BP service station	53-55 Victoria STREET	Service Station	Regulation under CLM Act not required	-31.91015653	152.4659073
TAREN POINT	Former Oyster Farmer	(formerly 98 Woodlands Rd) 2R Alexander AVENUE	Other Industry	Contamination being managed via the planning process (EP&A Act)	-34.01698788	151.1247494
TAREN POINT	Former Oyster Farmer	1A Atkinson ROAD	Other Industry	Regulation under CLM Act not required	-34.02081803	151.1283282

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TAREN POINT	Former manufacturing site	46-50 Bay ROAD	Other Industry	Regulation under CLM Act not required	-34.0236184	151.1231649
TAREN POINT	Mangrove Lane Cycle pathway	Mangrove LANE	Unclassified	Regulation under CLM Act not required	-34.02404025	151.1324783
TAREN POINT	Caltex Service Station	114 Taren Point ROAD	Service Station	Regulation under CLM Act not required	-34.02065958	151.1218938
TAREN POINT	Shell Coles Express Service Station	99-103 Parraweena ROAD	Service Station	Regulation under CLM Act not required	-34.02630233	151.1200897
TAREN POINT	Redevelopment Site	25 Bay ROAD	Other Industry	Under assessment	-34.021094	151.12754
TELARAH	Former Ausgrid Depot	Green STREET	Other Industry	Regulation under CLM Act not required	-32.7276446	151.5269745
TELARAH	ACIRL	5 Junction STREET	Other Industry	Regulation under CLM Act not required	-32.73457183	151.5400128
TEMPE	Former Tempe Tip	South STREET	Landfill	Contamination currently regulated under CLM Act	-33.9255792	151.1668117
TEMPE	Caltex Service Station	775 Princes HIGHWAY	Service Station	Regulation being finalised	-33.9253681	151.1596532
TEMPE	Tempe Depot	1a Gannon STREET	Other Petroleum	Regulation under CLM Act not required	-33.92408255	151.1596469
TEMPE	Railcorp Site Renwick Street	Renwick STREET	Other Industry	Regulation under CLM Act not required	-33.91997709	151.1576058
TERALBA	Teralba, Lucky's Scrap Metal	21 Racecourse ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.946805	151.61698
TERALBA	Lake Macquarie Teralba Sanitary Depot	Griffen ROAD	Landfill	Regulation under CLM Act not required	-32.9372059	151.6214528
TERANIA CREEK	Former Izzards Cattle Tick Dip	Wallace ROAD	Cattle Dip	Contamination formerly regulated under the CLM Act	-28.65425776	153.2767438
THIRLMERE	Thirlmere Rail Heritage Museum	10 Barbour ROAD	Other Industry	Regulation under CLM Act not required	-34.20689245	150.5693902
THORNLEIGH	Caltex Thornleigh Service Station	192-198 Pennant Hills (Cnr Duffy Ave) ROAD	Service Station	Regulation under CLM Act not required	-33.72660793	151.08364
THORNLEIGH	Coles Express Service Station Thornleigh	188 - 190 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.72502184	151.0850569
THORNTON	Energy Australia Thornton Pole Yard	55 Weakleys DRIVE	Other Industry	Regulation under CLM Act not required	-32.79973875	151.6374998
TIGHES HILL	Former Mobil Terminal	110 Elizabeth STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.90600406	151.7586907
TIGHES HILL	Former Ampol Depot	94 Elizabeth STREET	Other Petroleum	Regulation being finalised	-32.90658137	151.757239
TIGHES HILL	Holcim Australia Cement Batching Plant	340 Industrial DRIVE	Other Industry	Regulation under CLM Act not required	-32.90532418	151.7574857
TIGHES HILL	SRA Land	73 Elizabeth STREET	Unclassified	Regulation under CLM Act not required	-32.90795794	151.754631
TOCUMWAL	Former Mobil Depot	250 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-35.79180653	145.5648214
TOCUMWAL	Former Mobil Depot	79-83 Deniliquin ROAD	Other Petroleum	Regulation under CLM Act not required	-35.80914914	145.5585528

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
TOMAGO	Minmet	25 School DRIVE	Metal Industry	Contamination currently regulated under POEO Act	-32.8301553	151.7300603
TOMAGO	Balcombe Sweat Furnace	26 Laverick AVENUE	Metal Industry	Regulation under CLM Act not required	-32.82557395	151.7056416
TOMERONG	Log Cabin Service Station (United Petroleum)	D1300 Princes HIGHWAY	Service Station	Under assessment	-35.01820959	150.5779687
TOONGABBIE	7-Eleven (Former Mobil) Service Station Toongabbie	3 Metella ROAD	Service Station	Regulation under CLM Act not required	-33.78692357	150.9462837
TOORMINA	Caltex Service Station	2 Minorca PLACE	Service Station	Regulation under CLM Act not required	-30.35229568	153.0906606
TORONTO	Coles XP (Former Mobil) Toronto Service Station	133 - 137 Cary (Cnr Thorne St) STREET	Service Station	Regulation under CLM Act not required	-33.01187681	151.5930879
TORONTO	BP Toronto Service Station	132 Cary (Cnr Donnelly Ave) STREET	Service Station	Regulation under CLM Act not required	-33.01144673	151.5937863
TORONTO	Toronto Hotel	74 Victory PARADE	Unclassified	Regulation under CLM Act not required	-33.01214835	151.5958127
TORONTO	Caltex Service Station	147 Cary STREET	Service Station	Regulation under CLM Act not required	-33.01288007	151.5928388
TOUKLEY	Former Shell Toukley Autoport	211 Main ROAD	Service Station	Regulation under CLM Act not required	-33.26383791	151.5386268
TOUKLEY	Independent (Mobil) Toukley Service Station	287 Main ROAD	Service Station	Regulation under CLM Act not required	-33.26469166	151.5462414
TRANGIE	Caltex Service Station	(Mitchell Hwy) 76 Narromine STREET	Service Station	Regulation under CLM Act not required	-32.03234676	147.985164
TUGGERAH	BP Tuggerah	100 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.30578167	151.4198083
TUMBARUMBA	Former Caltex Depot	150 Albury STREET	Other Petroleum	Regulation under CLM Act not required	-35.77024081	147.9927182
TUMBI UMBI	Former Tumbi Landfill	140 Bellevue ROAD	Landfill	Regulation under CLM Act not required	-33.3993472	151.456471
TUMUT	CSR Blue Dam	Jepsen AVENUE	Other Industry	Regulation being finalised	-35.30098337	148.1958308
TUMUT	CSR Railway cutting	Jepsen AVENUE	Unclassified	Regulation being finalised	-35.30422002	148.1942579
TUMUT	Former Telstra Depot	22-26 Carey STREET	Other Industry	Regulation under CLM Act not required	-35.29873079	148.2191122
TUROSS HEAD	Tern Inn Restaurant (abandoned UPSS)	2 Trafalgar ROAD	Service Station	Regulation under CLM Act not required	-36.05871059	150.1308443
TURRAMURRA	7-Eleven (former Mobil) Service Station Turramurra	1408 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.73326389	151.1264194
TURRAMURRA	Woolworths (Former Mobil) Service Station	1233 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.73317594	151.1313195
TURRELLA	Tulloch Australia Pty Limited	61 Turrella STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.92857213	151.1475387
TWEED HEADS	Former Mobil Quix Service Station	60 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-28.20143775	153.5445381

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
TWEED HEADS	Francis Street Road Reserve adjacent to 79-81 Wharf Street, Tweed Heads	79-81 Wharf STREET	Other Petroleum	Regulation under CLM Act not required	-28.17351959	153.542262
TWEED HEADS SOUTH	Former BP Depot	142 Minjungbal DRIVE	Other Petroleum	Regulation under CLM Act not required	-28.20860702	153.5455932
TWEED HEADS SOUTH	Coles Express Service Station	Corner Minjungbal Drive and Heffron STREET	Service Station	Regulation under CLM Act not required	-28.19459987	153.5419978
TWEED HEADS SOUTH	Woolworths Plus Petrol (Woolworths Caltex Tweed Heads South)	98-102 Pacific (100 Minjungbal Drive) HIGHWAY	Service Station	Regulation under CLM Act not required	-28.20488521	153.5448675
TWEED HEADS WEST	Caltex Service Station	96 to 98 Kennedy DRIVE	Service Station	Regulation being finalised	-28.1871486	153.5229866
ULAN	Ulan Coal Mine	4505 Ulan ROAD	Other Industry	Regulation under CLM Act not required	-32.25620603	149.7558075
ULLADULLA	Coles Express Ulladulla	153 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.36288274	150.47272
ULLADULLA	Woolworths Petrol Station	155-157 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.36316263	150.4725668
ULLADULLA	Caltex Service Station	62A Deering Street, corner Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.36276828	150.473578
ULTIMO	Shell Coles Express Service Station	387-429 Wattle STREET	Service Station	Regulation under CLM Act not required	-33.88138825	151.1966791
UNANDERRA	BlueScope Stainless Steel	13 Marley PLACE	Metal Industry	Contamination currently regulated under CLM Act	-34.44959798	150.8571632
UNANDERRA	Former Prime Service Station and adjoining lands	41-49 Princes HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-34.45056105	150.8490833
UNANDERRA	Endeavour Energy Springhill Field Service Centre	195 Five Island ROAD	Other Industry	Regulation under CLM Act not required	-34.45837706	150.8598825
UNANDERRA	Unanderra Weekend Detention Centre	34-40 Lady Penryhn DRIVE	Landfill	Regulation under CLM Act not required	-34.4620226	150.8473821
UNANDERRA	Veolia Environmental Services	9 Waynote PLACE	Other Industry	Regulation under CLM Act not required	-34.46042393	150.863232
UNANDERRA	Caltex Service Station	86-98 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.45414951	150.845165
URALLA	Caltex Service Station	103 Bridge STREET	Service Station	Regulation under CLM Act not required	-30.64524911	151.4934484
URALLA	Phoenix Foundry	44 Duke STREET	Metal Industry	Regulation under CLM Act not required	-30.65093272	151.5004479
URANQUINTY	Former Caltex Depot Kapooka (Wagga Wagga)	6876 Olympic (Uranquinty Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-35.15319793	147.3085469
URUNGA	Former Antimony Process plant	Hillside DRIVE	Chemical Industry	Contamination currently regulated under CLM Act	-30.50422942	153.0132011
VALENTINE	BP Express Service Station	855 Macquarie DRIVE	Service Station	Regulation under CLM Act not required	-33.00801109	151.6425806
VALENTINE	Valentine Public School	Tallawalla ROAD	Unclassified	Regulation under CLM Act not required	-33.0091613	151.6423231

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
VILLAWOOD	Former Orica Crop Care	2 Christina ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.880329	150.9896329
VILLAWOOD	Former Siemens/Westinghouse	49 Miowera ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.87641909	150.9836746
VILLAWOOD	Former Electrical Component Manufacturer	66 Christina ROAD	Other Industry	Ongoing maintenance required to manage residual contamination	-33.88018315	150.9838773
VILLAWOOD	Former Defence Site	29 Biloela STREET	Landfill	Regulation under CLM Act not required	-33.88782978	150.9886275
VILLAWOOD	PPG Industries	9 Birmingham AVENUE	Chemical Industry	Regulation under CLM Act not required	-33.87800757	150.9887929
VILLAWOOD	Nepotian (Former Toll) Site	110A Christina ROAD	Other Industry	Under assessment	-33.87919117	150.9812193
VILLAWOOD	Ettason Villawood Site	2A Birmingham AVENUE	Chemical Industry	Under assessment	-33.878905	150.982682
VINEYARD	Shell Coles Express Service Station	731 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.65780463	150.8753245
WAGGA WAGGA	Former Gasworks	54 Chaston STREET	Gasworks	Contamination currently regulated under CLM Act	-35.12262069	147.3482778
WAGGA WAGGA	Former Gasworks	Cnr Tarcutta Street and Cross STREET	Gasworks	Contamination currently regulated under CLM Act	-35.10871183	147.3737933
WAGGA WAGGA	Former Dry Cleaning Facility	183 Fitzmaurice STREET	Other Industry	Regulation being finalised	-35.10209987	147.3683852
WAGGA WAGGA	Caltex Service Station	170 Fitzmaurice STREET	Service Station	Regulation under CLM Act not required	-35.10289587	147.3679002
WAGGA WAGGA	Former BP Service Station	31 Bourke STREET	Service Station	Regulation under CLM Act not required	-35.12626628	147.3547199
WAGGA WAGGA	Caltex (former Mobil) Service Station	106 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11910909	147.3682364
WAGGA WAGGA	Former Caltex Depot	60 Lake Albert DRIVE	Service Station	Regulation under CLM Act not required	-35.12316794	147.37724
WAGGA WAGGA	Former Mobil Depot Wagga Wagga	97-99 Coleman STREET	Other Petroleum	Regulation under CLM Act not required	-35.12173871	147.3576651
WAGGA WAGGA	Ashmont Autoport	Cnr Tobruk Street and Bardia STREET	Service Station	Regulation under CLM Act not required	-35.12517373	147.329919
WAGGA WAGGA	Former Caltex Service Station	343 Hammond AVENUE	Service Station	Regulation under CLM Act not required	-35.12420793	147.4157959
WAGGA WAGGA	Caltex Service Station	56 - 60 Docker St STREET	Service Station	Regulation under CLM Act not required	-35.11737947	147.3558145
WAGGA WAGGA	Former Iron Foundry	212-230 Hammond STREET	Metal Industry	Regulation under CLM Act not required	-35.12605478	147.4045461
WAGGA WAGGA	Coles Express Wagga Wagga	353-355 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11606625	147.3509339
WAGGA WAGGA	Former Wiradjuri landfill	Narrung STREET	Landfill	Under assessment	-35.09628532	147.3619535
WAGGA WAGGA	BP Wagga Wagga	180 Edward STREET	Service Station	Under assessment	-35.11850802	147.3639619
WAHROONGA	Coles Express Wahroonga	1601 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71945571	151.1163002

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
WAHROONGA	7-Eleven Service Station	1579 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71974617	151.1168106
WAITARA	Caltex Service Station	59-61 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71064349	151.1024644
WALGETT	Former Shell Depot	Castlereagh HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-30.00861179	148.1239938
WALLERAWANG	Wallerawang Power Station	1 Main STREET	Other Petroleum	Regulation under CLM Act not required	-33.40339296	150.0855101
WALLERAWANG	Lidsdale Coal Loading Facility	Main STREET	Other Industry	Regulation under CLM Act not required	-33.39996523	150.0737717
WALLSEND	Caltex Maryland Service Station Wallsend	41 Minmi ROAD	Service Station	Regulation under CLM Act not required	-32.88967866	151.6619253
WALLSEND	Coles Express Wallsend East	15 Thomas STREET	Service Station	Regulation under CLM Act not required	-32.90719444	151.6693426
WALLSEND	OneSteel Recycling	64-80 Sandgate ROAD	Metal Industry	Regulation under CLM Act not required	-32.89425477	151.6799648
WALLSEND	Ausgrid Wallsend Depot	Abbott STREET	Other Industry	Regulation under CLM Act not required	-32.90162796	151.6857267
WALLSEND	Cnr of Douglas Street and 111 Newcastle Road Wallsend	111 Newcastle ROAD	Metal Industry	Under assessment	-32.90414175	151.6830784
WAMBERAL	Caltex Service Station	654 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.42338668	151.4375685
WANGI WANGI	Myuna Colliery	Wangi Point ROAD	Other Industry	Regulation under CLM Act not required	-33.06139532	151.5697186
WARATAH	Waratah Area Health	Turton ROAD	Unclassified	Regulation under CLM Act not required	-32.90961233	151.7260867
WARATAH	Waratah former Gasworks	Turton and Georgetown ROADS	Gasworks	Under assessment	-32.9057763	151.7270033
WARILLA	Woolworths Petrol Warilla	43 -57 Shellharbour ROAD	Service Station	Regulation under CLM Act not required	-34.5470966	150.863748
WARKWORTH	Emulsion Plant, Dyno Nobel Asia Pacific Pty Ltd	186 Long Point ROAD	Chemical Industry	Regulation under CLM Act not required	-32.5781708	151.0834387
WARKWORTH	United Colliery	Jerrys Plains ROAD	Other Industry	Regulation under CLM Act not required	-32.5654356	150.9916698
WARNERS BAY	Caltex Service Station	55 King STREET	Service Station	Regulation under CLM Act not required	-32.97418806	151.6476184
WARNERS BAY	7-Eleven (former Mobil) Service Station	393 Hillsborough ROAD	Service Station	Regulation under CLM Act not required	-32.9659363	151.6543264
WARNERS BAY	Historically Filled Land	41-43 Charles STREET	Unclassified	Regulation under CLM Act not required	-32.97340461	151.6464383
WARNERVALE	Former Timber Treatment Plant	Aldenham and Railway ROADS	Other Industry	Contamination formerly regulated under the CLM Act	-33.24732018	151.4469037
WARRAGAMBA	Warragamba Dam Viewing Platform	Eighteenth STREET	Unclassified	Under assessment	-33.88546354	150.6024501
WARRAWONG	Caltex Service Station	75-77 King STREET	Service Station	Regulation under CLM Act not required	-34.49037817	150.888802
WARREN	Former Mobil Warren Depot	16 Dubbo STREET	Other Petroleum	Contamination currently regulated under CLM Act	-31.6943058	147.8314606

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
WARREN	Former Shell Depot	8 Dubbo STREET	Other Petroleum	Regulation under CLM Act not required	-31.69379262	147.8308088
WARREN	Caltex Warren Service Station	1 Coonamble ROAD	Service Station	Regulation under CLM Act not required	-31.69508383	147.8405578
WARWICK FARM	Warwick Farm Public School	Lawrence Hargrave DRIVE	Landfill	Under assessment	-33.91050532	150.9302197
WATERLOO	Lawrence Dry Cleaners	887-893 Bourke STREET	Unclassified	Contamination currently regulated under CLM Act	-33.89897433	151.2101436
WATERLOO	Proposed Construction Site	2 John STREET	Other Industry	Regulation under CLM Act not required	-33.89989686	151.2010324
WATERLOO	Waverley Woollahra Process Plant	355 Botany ROAD	Other Industry	Regulation under CLM Act not required	-33.9063092	151.2042672
WATERLOO	Shell Coles Express Service Station	867-877 South Dowling STREET	Service Station	Regulation under CLM Act not required	-33.90179774	151.2143789
WATERLOO	Iconic (Former Chubb Factory) Waterloo	830-838 Elizabeth STREET	Other Industry	Regulation under CLM Act not required	-33.90227718	151.2060305
WATERLOO	Diversity Waterloo	1-13 Archibald AVENUE	Other Industry	Under assessment	-33.90204305	151.2097328
WATERLOO	22-24 Archibald Avenue	22-24 Archibald AVENUE	Other Petroleum	Under assessment	-33.90263766	151.2132105
WAUCHOPE	Expressway Spares UST	3 Sancrox ROAD	Other Petroleum	Regulation under CLM Act not required	-31.44421922	152.8218723
WAUCHOPE	Former Shell Depot	56-64 High STREET	Other Petroleum	Regulation under CLM Act not required	-31.45804845	152.7314151
WAUCHOPE	Wauchope Service Station	57 High STREET	Service Station	Regulation under CLM Act not required	-31.45737022	152.7305018
WAUCHOPE	Former Timber Treatment Site	Blackbutt DRIVE	Other Industry	Regulation under CLM Act not required	-31.46575645	152.7228555
WAUCHOPE	Shell Coles Express Service Station	64 High STREET	Service Station	Regulation under CLM Act not required	-31.45764495	152.7315975
WAUCHOPE	Wauchope Public Primary School	2 Waugh STREET	Landfill	Under assessment	-31.4556387	152.7295455
WAVERTON	SRA Land	95 Bay ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-33.83716728	151.1969497
WAVERTON	Berry's Bay Woodley's Marina	1 Balls Head DRIVE	Other Industry	Contamination formerly regulated under the POEO Act	-33.84441851	151.1947433
WAVERTON	Oyster Cove AGL	2 King STREET	Gasworks	Ongoing maintenance required to manage residual contamination	-33.83637995	151.193541
WELLINGTON	Former Caltex Service Station	124-128 Lee STREET	Service Station	Regulation under CLM Act not required	-32.55082729	148.9411537
WELLINGTON	BP Wellington Service Station	35A Maxwell STREET	Service Station	Under assessment	-32.55835121	148.9447284
WELLINGTON	Woolworths Petrol Wellington	79 Lee STREET	Service Station	Under assessment	-32.54874227	148.9408531
WENTWORTH	Caltex - Wentworth	110 Adams STREET	Service Station	Regulation under CLM Act not required	-34.1024927	141.9160539
WENTWORTH FALLS	Bodington Hospital	Bodington DRIVE	Unclassified	Contamination formerly regulated under the CLM Act	-33.73201608	150.3874102

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WENTWORTH POINT	RMS Eastern Precinct	3-7 Burroway ROAD	Other Petroleum	Regulation under CLM Act not required	-33.8233882	151.0815668
WENTWORTH POINT	Former TNT Express	23 Bennelong PARKWAY	Other Petroleum	Regulation under CLM Act not required	-33.83115118	151.0726636
WENTWORTHVILLE	Former Workshop	2 Rawson Rd and 8 Barfil CRESCENT	Unclassified	Regulation under CLM Act not required	-33.81568808	150.9671853
WERRINGTON	Caltex Service Station	Cnr Dunheved Rd and Henry Lawson DRIVE	Service Station	Regulation under CLM Act not required	-33.74577725	150.7409877
WERRINGTON	Claremont Meadows Former landfill	Gipps STREET	Landfill	Regulation under CLM Act not required	-33.77341076	150.7557628
WERRINGTON COUNTY	7-Eleven Werrington	Lot 122 Dunheved ROAD	Service Station	Regulation under CLM Act not required	-33.74699408	150.7428609
WEST BALLINA	Caltex Big Prawn Service Station	Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-28.86374913	153.5321482
WEST GOSFORD	Caltex Service Station	283 Manns ROAD	Service Station	Regulation under CLM Act not required	-33.41659727	151.325219
WEST GOSFORD	Caltex Service Station	69-71 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.42729985	151.3214621
WEST GOSFORD	Caltex Service Station	30a Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.42778813	151.3190581
WEST NOWRA	Endeavour Energy Nowra Field Service Centre	20 Depot ROAD	Other Industry	Regulation under CLM Act not required	-34.88993085	150.5878854
WEST PENNANT HILLS	7-Eleven (former Mobil) Service Station	552 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.74686545	151.0508067
WEST RYDE	7-Eleven (former Mobil) Service Station	917 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.80921103	151.0932917
WEST RYDE	Pfizer Australia Pty Ltd	38-42 Wharf ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81021085	151.0693631
WEST RYDE	Reckitt Benckiser	44 Wharf ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81172205	151.0692752
WEST RYDE	JHM Property Development	2A Mellor STREET	Metal Industry	Under assessment	-33.81207534	151.094598
WEST TAMWORTH	Woolworths Petrol	119 Bridge STREET	Service Station	Regulation under CLM Act not required	-31.09358262	150.9167693
WEST WOLLONGONG	Woolworths Service Station	425 Crown STREET	Service Station	Contamination currently regulated under CLM Act	-34.42637378	150.8799288
WEST WYALONG	Lowes Petroleum (Former BP) Depot West Wyalong	Compton (formerly known as Town Bypass/Railway Road) ROAD	Other Petroleum	Regulation under CLM Act not required	-33.93440247	147.2154596
WEST WYALONG	Caltex Depot	(Wyalong By-pass Rd) Lot 1-3 Showground ROAD	Service Station	Regulation under CLM Act not required	-33.92556	147.1981659
WEST WYALONG	Former Mobil Depot	104 Compton ROAD	Other Petroleum	Regulation under CLM Act not required	-33.93449194	147.2147948
WESTON	Illegal Dumping Site	Corner Kline Street & First STREET	Unclassified	Regulation under CLM Act not required	-32.81367986	151.4551507
WETHERILL PARK	Former Fuel Storage Depot	200-212 Cowpasture ROAD	Other Petroleum	Regulation under CLM Act not required	-33.84568871	150.8764012
WETHERILL PARK	Sims Wetherill Park	35-37 Frank STREET	Metal Industry	Regulation under CLM Act not required	-33.84056122	150.9086265

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
WETHERILL PARK	Shell Coles Express Service Station	565 Polding STREET	Service Station	Regulation under CLM Act not required	-33.8569731	150.8992804
WETHERILL PARK	Cleanaway (Formerly Nationwide Oil) Wetherill Park	6 Davis ROAD	Other Industry	Regulation under CLM Act not required	-33.83770038	150.9045197
WETHERILL PARK	BOC Sydney Operations Centre	428-440 Victoria STREET	Other Industry	Regulation under CLM Act not required	-33.84400237	150.8967556
WETHERILL PARK	Camide Former Landfill	Newton ROAD	Landfill	Regulation under CLM Act not required	-33.83898879	150.8963813
WICKHAM	Caltex Terminal	156 Hannell STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.91520778	151.7563638
WICKHAM	Former Warehouse	10 Dangar STREET	Unclassified	Regulation under CLM Act not required	-32.92383206	151.759761
WICKHAM	Former Factory	57 Annie STREET	Other Industry	Regulation under CLM Act not required	-32.91524827	151.7539893
WICKHAM	Railcorp Wickham	50 Railway STREET	Other Industry	Regulation under CLM Act not required	-32.9210433	151.7544687
WICKHAM	Fuchs Lubricants (Australasia) Pty Ltd Wickham	2 Holland STREET	Other Industry	Regulation under CLM Act not required	-32.9214709	151.7556928
WILBERFORCE	Former Drum Reconditioners	12-14 Box AVENUE	Other Industry	Contamination formerly regulated under the CLM Act	-33.5453884	150.8587934
WILBERFORCE	Former Solvent Recycling Site	13 Box AVENUE	Chemical Industry	Regulation under CLM Act not required	-33.54557427	150.8577006
WILEY PARK	Sydney Water Property	1B Hillcrest STREET	Other Industry	Regulation under CLM Act not required	-33.92391634	151.0676256
WILLIAMTOWN	Hunter Land Effluent Pond	38 Cabbage Tree ROAD	Other Industry	Regulation under CLM Act not required	-32.80750069	151.8310107
WILLOUGHBY	Shell Coles Express Service Station	616-626 Willoughby ROAD	Service Station	Regulation under CLM Act not required	-33.80593769	151.1988559
WILLOUGHBY	Caltex Service Station	157 Penhur STREET	Service Station	Regulation under CLM Act not required	-33.79793513	151.1981926
WILLOUGHBY	BP Express Tower	498 Willoughby STREET	Service Station	Under assessment	-33.81022918	151.199315
WILLOUGHBY EAST	Willoughby Bus Depot	Corner Ann Street and Stan STREET	Other Industry	Regulation under CLM Act not required	-33.7982569	151.2038993
WILTON	Condell Park Homestead	(Part Lot 17 DP 270536) Condell Park ROAD	Unclassified	Regulation under CLM Act not required	-34.21910141	150.6837962
WINDANG	Caltex Service Station	244-248 Windang ROAD	Service Station	Regulation under CLM Act not required	-34.5274434	150.8691161
WINDSOR	Former Caltex Service Station	46-52 Macquarie STREET	Service Station	Regulation under CLM Act not required	-33.60783315	150.8213428
WINDSOR	Former Caltex Windsor Depot and Service Station	48-50 Mileham STREET	Service Station	Regulation under CLM Act not required	-33.61538627	150.8157517
WINDSOR	Woolworths (former Caltex) Service Station	Cnr Macquarie Street & Baker STREET	Service Station	Regulation under CLM Act not required	-33.60569346	150.8232803
WINGHAM	Former Caltex Service Station	1036-1038 Wingham ROAD	Service Station	Regulation under CLM Act not required	-31.86236594	152.3805752
WINGHAM	Bogas Service Station	Cnr Primrose Street and Isabella STREET	Service Station	Regulation under CLM Act not required	-31.86833656	152.3716346

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
WINMALEE	Prime (Caltex supplied) (former Mobil) Winmalee Service Station	281 Hawkesbury ROAD	Service Station	Regulation under CLM Act not required	-33.68223276	150.5997203
WIRLINGA	Former Liquid Waste Disposal Facility	704 Riverina ROAD	Unclassified	Regulation under CLM Act not required	-36.07103958	147.0193522
WOLLI CREEK	Former Ausgrid Substation 10061	13 Gertrude STREET	Other Industry	Regulation under CLM Act not required	-33.93364031	151.1543818
WOLLONGONG	Greenhouse Park	Springhill ROAD	Landfill	Regulation being finalised	-34.44119949	150.8931764
WOLLONGONG	Redevelopment site	33 - 39 Beatson STREET	Other Petroleum	Regulation under CLM Act not required	-34.43196083	150.8976661
WOLLONGONG	Caltex Service Station	9 Flinders STREET	Service Station	Regulation under CLM Act not required	-34.41505616	150.8932515
WOLLONGONG	Former Wollongong Gasworks	120 and 122 Smith STREET	Gasworks	Regulation under CLM Act not required	-34.42030173	150.8906745
WOLLONGONG	Wollongong Harbour Central Spur	Off Endeavour DRIVE	Other Petroleum	Regulation under CLM Act not required	-34.42066879	150.906821
WOODBURN	Caltex Service Station	129 River STREET	Service Station	Regulation under CLM Act not required	-29.07206887	153.3409769
WOODBURN	Crown Reserve 88037 Woodburn	Pacific HIGHWAY	Landfill	Regulation under CLM Act not required	-29.06580577	153.3541886
WOOLGOOLGA	Caltex Woolgoolga Service Station	16 Bosworth ROAD	Service Station	Regulation under CLM Act not required	-30.12569561	153.1946006
WOOLGOOLGA	United Petroleum Service Station	56 Clarence STREET	Service Station	Regulation under CLM Act not required	-30.11045544	153.1904609
WOOLLAHRA	Caltex Woollahra Service Station	116 Old South Head ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.88959697	151.2553736
WOOLLAHRA	Former Service Station	20 Wallis STREET	Service Station	Regulation under CLM Act not required	-33.8901965	151.2372752
WOOLLAHRA	Proposed Jewish Care Centre	7 -21 Saber STREET	Unclassified	Regulation under CLM Act not required	-33.8904055	151.2480062
WOOLLOOMOOLOO	Former BP Service Station	2 Dowley STREET	Service Station	Contamination being managed via the planning process (EP&A Act)	-33.86940191	151.2218741
WOOLOMIN	Woolomin Gold Rush Store	65 - 71 Nundle ROAD	Other Petroleum	Contamination currently regulated under CLM Act	-31.30415134	151.149729
WOOLOOWARE	Caltex Service Station	100 Woolooware ROAD	Service Station	Regulation being finalised	-34.05274635	151.1408413
WOOLOOWARE	Oyster Farm	Captain Cook DRIVE	Other Industry	Under assessment	-34.03807914	151.1476055
WOONGARRAH	Former Warnervale Landfill	236-264 Hakone ROAD	Landfill	Regulation under CLM Act not required	-33.2376313	151.464362
WOOTTON	Former Chemical Spill Site	11859 Pacific HIGHWAY	Chemical Industry	Regulation under CLM Act not required	-32.28168548	152.3117819
WOY WOY	Bogas Service Station	66 Memorial AVENUE	Service Station	Contamination currently regulated under CLM Act	-33.5069738	151.3315579
WOY WOY	Mobil Former Woy Woy Service Station and adjacent land	177-181 Blackwall ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.49254403	151.3270829
WOY WOY	Barry Robertson Holden	231 Blackwall ROAD	Service Station	Regulation under CLM Act not required	-33.49621068	151.3285128

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
WYALONG	Caltex Service Station	50 Neeld (Newell Highway) STREET	Service Station	Regulation under CLM Act not required	-33.92665025	147.2446546
WYOMING	Caltex Service Station Wyoming	465 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.40945391	151.3499812
WYONG	Wyong Bayer/Kemcon	16 Lucca ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.26192339	151.4429446
WYONG	Caltex Service Station	M1 Pacific (Northbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.25641477	151.4024821
WYONG	Caltex Service Station	M1 Pacific (Southbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.25330747	151.4053862
WYONG	IXOM Facility	8 Pavitt CRESCENT	Other Industry	Under assessment	-33.26379108	151.4485113
YAGOONA	Galserv Galvanising Services	117-153 Rookwood ROAD	Metal Industry	Contamination currently regulated under CLM Act	-33.89493085	151.0388013
YAGOONA	BP Service Station Potts Hill (Yagoona)	155 Rookwood ROAD	Service Station	Regulation under CLM Act not required	-33.89330525	151.0390969
YAGOONA	7-Eleven (former Mobil) Service Station	519 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90760623	151.0207783
YAGOONA	Shell Coles Express Service Station	112 Rookwood ROAD	Service Station	Regulation under CLM Act not required	-33.89856213	151.0370458
YAGOONA	Sydney Water Potts Hill Complex	91 Brunker ROAD	Other Industry	Under assessment	-33.89887589	151.0289165
YALLAH	Tallawarra Power Station site	Princes HIGHWAY	Unclassified	Contamination formerly regulated under the CLM Act	-34.52412143	150.8062159
YAMBA	Caltex Service Station	22 Treelands DRIVE	Service Station	Regulation under CLM Act not required	-29.42701701	153.3279204
YANCO	Former Service Station	14 Main AVENUE	Service Station	Contamination formerly regulated under the CLM Act	-34.60356494	146.4105016
YASS	Former Mobil Depot Yass	54-58 Laidlaw STREET	Service Station	Contamination currently regulated under CLM Act	-34.83252976	148.9068888
YASS	Former Gasworks	Dutton STREET	Gasworks	Contamination currently regulated under CLM Act	-34.83982614	148.9060029
YASS	Caltex Service Station	228 Comur STREET	Service Station	Regulation under CLM Act not required	-34.84440036	148.9140179
YASS	Caltex Service Station	1715 Yass Valley WAY	Service Station	Regulation under CLM Act not required	-34.80708856	148.8824228
YASS	Transgrid Depot Yass	Perry STREET	Unclassified	Under assessment	-34.86238341	148.9052809
YENNORA	Former Metal Plant	44 Larra STREET	Metal Industry	Contamination formerly regulated under the CLM Act	-33.86340576	150.9764349
YENNORA	TetraPak Site	6 Foray STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.8557183	150.9561605
YENNORA	Former Alcoa Australia Rolled Products Facility - Area 3	1 Kiora CRESCENT	Metal Industry	Regulation under CLM Act not required	-33.86568158	150.9649297
YENNORA	Spicer Axle Australia Manufacturing Facility	205-231 Fairfield ROAD	Other Industry	Regulation under CLM Act not required	-33.85655114	150.9579167
YENNORA	Former Caltex Service Station	137-141 Fairfield STREET	Service Station	Regulation under CLM Act not required	-33.86824768	150.9706137

Suburb	Site Name	Address	Contamination Activity Type	EPA Management Class	Latitude	Longitude
YENNORA	19 Pine Road, Yennora	Pine ROAD	Metal Industry	Under assessment	-33.86713232	150.9621172
YETHOLME	Yetholme CCA Timber Treatment Plant	351 Eusdale ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.45386256	149.8537787
YOUNG	Former battery recycler	45 Nasmyth STREET	Metal Industry	Contamination currently regulated under CLM Act	-34.31201571	148.306772
YOUNG	Mobil Depot	186 Nasmyth STREET	Other Petroleum	Contamination currently regulated under CLM Act	-34.30954389	148.2908476
YOUNG	Adjacent to former battery recycler	47 Nasmyth STREET	Metal Industry	Contamination formerly regulated under the CLM Act	-34.31176273	148.3064765
YOUNG	Former Mobil Depot and Service Station Young	149 Lovell STREET	Service Station	Regulation under CLM Act not required	-34.31024587	148.290424
YOUNG	Former Shell Depot	166 Nasmyth STREET	Other Petroleum	Regulation under CLM Act not required	-34.31025192	148.2931008
YOUNG	Former Caltex Depot	95 Lovell STREET	Service Station	Regulation under CLM Act not required	-34.31127119	148.2955092
ZETLAND	Energy Australia/ Ausgrid Zetland Depot	122 - 138 Joynton AVENUE	Other Industry	Regulation under CLM Act not required	-33.90883116	151.2101184
ZETLAND	Zetland, Goodrich Control Systems site	84 - 92 Epsom ROAD	Other Industry	Under assessment	-33.91025707	151.2078048

Contaminated land

+ Management of contaminated land
+ Consultants and site auditor scheme
+ Underground petroleum storage systems
Guidelines under the CLM Act
NEPM amendment
+ Further guidance
− Record of notices
About the record
Search the record
Search tips
Disclaimer
List of NSW contaminated sites notified to EPA
Frequently asked questions
Forms
+ Other contamination issues
+ Contaminated Land Management Program

Search results

Your search for: LGA: Cessnock City Council

Matched 5 notices relating to 3 sites.

Search Again Refine Search

Suburb	Address	Site Name	Notices related to this site
BRANXTON	70 Maitland STREET	Former Service Station Branxton	1 current
KURRI KURRI	279-281 Lang STREET	Caltex Service Station	3 current
NORTH ROTHBURY	Main ROAD	Ayrefield Colliery	1 current

Page 1 of 1

29 May 2018

Search results

Your search for: **General Search** with the following criteria

Suburb - Black hill

returned 18 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
2566	BITUPAVE LTD	LENAGHANS DRIVE, BLACK HILL, NSW 2322	POEO licence	No longer in force	02 Mar 2000
1017684	BITUPAVE LTD	LENAGHANS DRIVE, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	31 Mar 2003
12856	DONALDSON COAL PTY LTD	1132 John Renshaw Drive, BLACK HILL, NSW 2322	POEO licence	Issued	09 Jul 2008
1104231	DONALDSON COAL PTY LTD	1132 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	27 Nov 2009
1502528	DONALDSON COAL PTY LTD	1132 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	21 Dec 2011
1563550	DONALDSON COAL PTY LTD	1132 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Pending	08 Apr 2018
11180	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	POEO licence	Issued	23 Oct 2000
1013115	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	29 Nov 2001
1037428	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	28 May 2004
1044777	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	22 Feb 2005
1051243	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	08 Nov 2005
1057339	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	01 May 2006
1068428	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	16 Apr 2007
1093977	ENVIROKING INVESTMENTS PTY LTD	843 John Renshaw Drive, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	20 Nov 2008
4978	WOODBURY CIVIL PTY LIMITED	BLACKHILL ROAD, BLACK HILL, NSW 2322	POEO licence	Issued	10 Feb 2000
1009077	WOODBURY CIVIL PTY LIMITED	BLACKHILL ROAD, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	07 Sep 2001
1097576	WOODBURY CIVIL PTY LIMITED	BLACKHILL ROAD, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	20 Jan 2010
1523746	WOODBURY CIVIL PTY LIMITED	BLACKHILL ROAD, BLACK HILL, NSW 2322	s.58 Licence Variation	Issued	07 Nov 2014

Appendix G Heritage Records

Search Results

new search

No results found.

Enter at least one search criterion.
Search Hints

Search | Reset form

Place name

Street name
John Renshaw Drive

Town or suburb
Black Hill

State
New South Wales

Country

Search for NSW heritage

Your search did not return any matching results. Please refine your search and try again.

The State Heritage Inventory is a list of heritage items in New South Wales including Aboriginal Places, State Heritage Register, Interim Heritage Orders, State Agency Heritage Registers and Local Environmental Plans.

The Heritage Division is directly responsible for maintaining **Aboriginal Places** and the **State Heritage Register**. A new **combined map search** is now available. For further information about Aboriginal Places and Sites refer to **AHIMS Web Services**

Whilst the Heritage Division seeks to keep the Inventory up to date, it is reliant on State agencies and local councils to provide their data. Always check with the relevant State agency or local council for the most up-to-date information.

Visit **State Heritage Inventory help** if you are unfamiliar with this search facility.

Basic search criteria

Item name/database ID:	
Street name:	John Renshaw Drive
Suburb/town:	Black Hill
Local Government Area:	Maitland
Local Aboriginal Land Council (LALC):	Please Choose...
	(For Aboriginal Place and State Heritage Register only)
Heritage listings:	Please Choose...
SHR number:	

Appendix H Section 10.7 Certificate

PLANNING CERTIFICATE

ISSUED UNDER SECTION 149(2) and (5)
ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979
and
ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2000

InfoTrack
DX 578 Sydney

Applicants Reference
128261-#42822166#

CERTIFICATE DETAILS

CERTIFICATE NUMBER: 27

DATE OF CERTIFICATE: 15/01/2018

PROPERTY DETAILS

ADDRESS:	John Renshaw Drive BLACK HILL NSW 2322
TITLE:	LOT: 1131 DP: 1057179
PARCEL NO.:	504157

BACKGROUND INFORMATION

This certificate provides information on how the relevant parcel of land may be developed, including the planning restrictions that apply to development of the land, as at the date the certificate is issued. The certificate contains information Council is aware of through its records and environmental plans, along with data supplied by the State Government. The details contained in this certificate are limited to that required by Section 149 of the *Environmental Planning and Assessment Act, 1979*.

TELEPHONE: (02) 4993 4100. FAX (02) 4993 2500
POSTAL ADDRESS: PO BOX 152, CESSNOCK, 2325 or DX 21502 CESSNOCK
EMAIL ADDRESS: council@cessnock.nsw.gov.au Visit us at: http://www.cessnock.nsw.gov.au
ABN 60 919 148 928

PLANNING CERTIFICATE

ISSUED UNDER SECTION 149(2) and (5)
ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979
and
ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2000

1. Name of relevant planning instruments and DCPs

(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Cessnock Local Environmental Plan 2011

Hunter Regional Plan 2036

State Environmental Planning Policy No 14—Coastal Wetlands

State Environmental Planning Policy No 21—Caravan Parks

State Environmental Planning Policy No 30—Intensive Agriculture

State Environmental Planning Policy No 33—Hazardous and Offensive Development

State Environmental Planning Policy No 36—Manufactured Home Estates

State Environmental Planning Policy No 44—Koala Habitat Protection

State Environmental Planning Policy No 50—Canal Estate Development

State Environmental Planning Policy No 52—Farm Dams and Other Works in Land and Water Management Plan Areas

State Environmental Planning Policy No 55—Remediation of Land

State Environmental Planning Policy No 62—Sustainable Aquaculture

State Environmental Planning Policy No 64—Advertising and Signage

State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development

State Environmental Planning Policy No 70—Affordable Housing (Revised Schemes)

State Environmental Planning Policy No 71—Coastal Protection

State Environmental Planning Policy (Affordable Rental Housing) 2009

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Integration and Repeals) 2016

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007

State Environmental Planning Policy (Rural Lands) 2008

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State Significant Precincts) 2005

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved):

There are no Draft Local Environmental Plan/s affecting this land.

(3) The name of each development control plan that applies to the carrying out of development on the land.

Cessnock Development Control Plan 2010

2. Zoning and land use under relevant LEPs

(a) The land is identified as being in:

IN2 Light Industrial under the Cessnock Local Environmental Plan 2011

E2 Environmental Conservation under the Cessnock Local Environmental Plan 2011

E4 Environmental Living under the Cessnock Local Environmental Plan 2011.

(b) The purpose for which development may be carried out without consent within the zone;
(c) The purposes for which development may not be carried out within the zone except with development consent; and
(d) The purpose for which development is prohibited within the zone.

IN2 Light Industrial

2) Permitted without consent

Nil

3) Permitted with consent

Depots; Garden centres; Hardware and building supplies; Hotel or motel accommodation; Industrial training facilities; Light industries; Neighbourhood shops; Places of public worship; Pubs; Roads; Timber yards; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4) Prohibited

Agriculture; Airstrips; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Centre-based child care facilities; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Entertainment facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Function centres; Hazardous storage establishments; Health services facilities; Helipads; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Industries; Agriculture; Airstrips; Animal boarding or training establishments; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating

facilities; Child care centres; Commercial premises; Community facilities; Correctional centres; Eco-tourist facilities; Educational establishments; Entertainment facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Function centres; Hazardous storage establishments; Health services facilities; Helipads; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Industries; Information and education facilities; Jetties; Marinas; Mooring pens; Moorings; Offensive storage establishments; Public administration buildings; Recreation facilities (major); Recreation facilities (outdoor); Residential accommodation; Respite day care centres; Resource recovery facilities; Sewerage systems; Tourist and visitor accommodation; Waste disposal facilities; Water recreation structures; Wharf or boating facilities; Wholesale supplies

E2 Environmental Conservation

2) Permitted without consent

Home occupations

3) Permitted with consent

Dwelling houses; Environmental facilities; Environmental protection works; Extensive agriculture; Home-based child care; Recreation areas; Roads; Secondary dwellings; Tourist and visitor accommodation

4) Prohibited

Business premises; Hotel or motel accommodation; Industries; Multi dwelling housing; Recreation facilities (major); Residential flat buildings; Restricted premises; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Any other development not specified in item 2 or 3
E4 Environmental Living

2) Permitted without consent

Environmental protection works; Home-based child care; Home occupations

3) Permitted with consent

Agriculture; Animal boarding or training establishments; Bed and breakfast accommodation; Building identification signs; Business identification signs; Camping grounds; Caravan parks; Centre-based child care; Community facilities; Dwelling houses; Emergency services facilities; Environmental facilities; Farm buildings; Flood mitigation works; Home businesses; Home industries; Information and education facilities; Landscaping material supplies; Neighbourhood shops; Passenger transport facilities; Plant nurseries; Recreation areas; Research stations; Respite day care centres; Roads; Roadside stalls; Secondary dwellings; Water reticulation systems

4) Prohibited

Aquaculture; Industries; Intensive livestock agriculture; Service stations; Warehouse or distribution centres; Any other development not specified in item 2 or 3

Schedule 1 Additional permitted use

11 Use of certain land at Black Hill Road, Black Hill

(1) This clause applies to land being part of Lot 1131, DP 1057179 and part of Lot 119, DP 1154904 at Black Hill Road, Black Hill that is in Zone IN2 Light Industrial and identified on the Additional Permitted Uses Map.

(2) Development for the purpose of general industries is permitted with development consent.

(e) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

No

(f) Whether the land includes or comprises critical habitat:

The land is not land that includes or comprises critical habitat declared to be critical habitat under Part 3 of the Threatened Species Conservation Act 1995.

(g) Whether the land is a conservation area (however described):

The land is not a conservation area under the Cessnock Local Environmental Plan 2011.

(h) Whether an item of environmental heritage (however described) is situated on the land:

An item of environmental heritage identified in Cessnock Local Environmental Plan 2011 is not situated on the land.

3. Complying Development

(1) Complying development may be carried out on the land under each of the following codes for complying development, to the extent stated, because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

(2) Complying development may not be carried out on the land under each of the following codes for complying development, to the extent and for the reasons stated under clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

Housing Code

Complying Development may not be carried out under the Housing Code as the subject land falls within a Local Environmental Plan zone that does not meet the requirements of the code.

Rural housing code

Complying Development may not be carried out under the Rural Housing Code as the subject land falls within a Local Environmental Plan zone that does not meet the requirements of the code.

Housing Alterations Code

Complying Development may be carried out on the land under the Housing Alterations Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

General Development Code

Complying Development may be carried out on the land under the General Development Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Commercial and Industrial Alterations Code

Complying Development may be carried out on the land under the Commercial and Industrial Alterations Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Commercial and Industrial (New Buildings and Additions) Code

Complying Development may be carried out under the Commercial & Industrial (New Buildings and Additions) Code where it meets the requirements of Clause 3.4 Complying development on bush fire prone land contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Container Recycling Facilities Code

Complying Development may be carried out on the land under the Container Recycling Facilities Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Subdivisions Code

Complying Development may be carried out on the land under the Subdivision Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Demolition Code

Complying Development may be carried out on the land under the Demolition Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Fire Safety Code

Complying Development may be carried out on the land under the Fire Safety Code, subject to the development complying with the relevant standards contained within the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

5. Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961.*

Yes

6. Road widening and road alignment

Whether or not the land is affected by any road widening or road realignment under:

(a) Division 2 of Part 3 of the *Roads Act 1993*, or

(b) any environmental planning instrument, or

(c) any resolution of the council.

The land is not affected by a road widening or road realignment proposal under:
(a) Division 2 of Part 3 of the Roads Act 1993, or
(b) any environmental planning instrument, or
(c) any resolution of the council.

7. Council and other public authority hazard risk restrictions

Whether or not the land is affected by a policy:

(a) adopted by the council, or

(b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

That restricts the development of the land because of the likelihood of:

(1) Landslip

No

(2) Bushfire

No

(3) Tidal inundation

No

(4) Subsidence

No

(5) Acid Sulphate Soils

No

(6) Any other risk (other than flooding)

No

7A. Flood related development controls information

(1) Whether or not development on the land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

No

(2) Whether or not development on the land or part of the land for any other purpose subject to flood related development controls.

No

Note: Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plans) Order 2006.*

8. Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 (above) makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the *Environmental Planning & Assessment Act 1979.*

No

9. Contributions plans

The name of each contributions plan/s applying to the land.

Section 94 Contribution Plan for Residential Development

Section 94 Contribution Plan for Tourist Development

9A. Biodiversity certified land

The land is not biodiversity certified land under Part 8 of the Biodiversity Conservation Act 2016.

Note. Biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.

10. Biodiversity stewardship sites

The land is not a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the Biodiversity Conservation Act 2016, but only insofar as the Council has been notified of the existence of the agreement by the Chief Executive of the Office of Environment and Heritage.

Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardship agreements under Part 5 of the *Biodiversity Conservation Act 2016.*

10A. Native vegetation clearing set asides

The land is not a set aside area under section 60ZC of the Local Land Services Act 2013, but only insofar as the Council has been notified of the existence of the set aside area by Local Land Services or it is registered in the public register under that section.

11. Bush fire prone land

Some of the land is bushfire prone land as defined in the Environmental Planning & Assessment Act 1979.

12. Property vegetation plans

The land is not land to which a property vegetation plan approved under Part 4 of the Native Vegetation Act 2003 (and that continues in force) applies, only insofar as the Council has been notified of the existence of the plan by the person or body that approved the plan under the Act.

13. Orders under *Trees (Disputes Between Neighbours) Act 2006*

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No

14. Directions under Part 3A

There is not a direction by the Minister in force under Section 75P(2)(c1) of the Environmental Planning & Assessment Act 1979 that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project of the land under Part 4 of that Act does not have effect.

15. Site compatibility certificates and conditions for seniors housing

(1) The land is not land to which the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 applies.

There is no current site compatibility certificate (senior's housing) of which Council is aware, in respect of proposed development on the land.

(2) There are no terms of a kind referred to in clause 18(2) of that policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.

16. Site compatibility certificates for infrastructure

There is not a valid site compatibility certificate (infrastructure) of which Council is aware, in respect of proposed development on the land.

17. Site compatibility certificates and conditions for affordable rental housing

(1) There is not a current site compatibility certificate (affordable rental housing), of which the Council is aware, in respect of proposed development on the land.

(2) There are no terms of a kind referred to in clause 17(1) or 38(1) of the State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land.

18. Paper subdivision information

(1) There is no development plan adopted by a relevant authority that applies to the land of that is proposed to be subject to a consent ballot.

(2) There is no subdivision order that applies to the land

Note: words and expressions in this clause have the same meaning as they have in Part 16C of the *Environmental Planning and Assessment Regulation 2000.*

19. Site verification certificates

There is not a current site verification certificate, of which Council is aware, in respect of the land.

Matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

(a) The land or part of the land is not significantly contaminated land within the meaning of the Contaminated Land Management Act 1997 at the date this certificate is issued.

(b) The land is not subject to a management order within the meaning of the Contaminated Land Management Act 1997 at the date this certificate is issued.

(c) The land is not the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997 at the date this certificate is issued.

(d) The land is not the subject of an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997 at the date this certificate is issued.

(e) The land is not the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 (if a copy of such a statement has been provided at any time) to the local authority issuing the certificate.

PLANNING CERTIFICATE

ISSUED UNDER SECTION 149(2) and (5)
ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979
and
ENVIRONMENTAL PLANNING & ASSESSMENT REGULATION 2000

InfoTrack
DX 578 Sydney

Applicants Reference
128261-#42822166#

CERTIFICATE DETAILS

CERTIFICATE NUMBER: 27

DATE OF CERTIFICATE: 15/01/2018

PROPERTY DETAILS

ADDRESS:	John Renshaw Drive BLACK HILL NSW 2322
TITLE:	LOT: 1131 DP: 1057179
PARCEL NO.:	504157

BACKGROUND INFORMATION

This certificate provides information on how the relevant parcel of land may be developed, including the planning restrictions that apply to development of the land, as at the date the certificate is issued. The certificate contains information Council is aware of through its records and environmental plans, along with data supplied by the State Government. The details contained in this certificate are limited to that required by Section 149 of the *Environmental Planning and Assessment Act, 1979*.

TELEPHONE: (02) 4993 4100. FAX (02) 4993 2500
POSTAL ADDRESS: PO BOX 152, CESSNOCK, 2325 or DX 21502 CESSNOCK
EMAIL ADDRESS: council@cessnock.nsw.gov.au Visit us at: http://www.cessnock.nsw.gov.au
ABN 60 919 148 928

Appendix I Calibration Certificate

PID Calibration Certificate

Instrument **PhoCheck Tiger**
Serial No. **T-105868**

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 ev			
Alarms	Beeper	✓	**Low**	**High**	**TWA**	**STEL**
	Settings	✓	50ppm	100ppm		
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		93 ppm Isobutylene	NIST	BR100		93.0PPM

Calibrated by: **Chris Lynch**

Calibration date: **20/07/2018**

Next calibration due: **19/08/2018**

Appendix J Test Pit Logs

NFTP01

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.1
Pit Dimension (m3):

Eastings (GDA 94): 151.61845
Northings (GDA 94): 32.82617
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP01 0.0-0.1 PID = 0.1 ppm NFTP01 0.1-0.15 PID = 0.1 ppm	
		0.15		Fill	Clayey SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains small rootlets and fine gravel		
	0.5						
		0.50		CL-GC	Gravelly CLAY, brown, homogenous,damp, medium plasticity, firm, contains fine to coarse grained sub-rounded gravel	NFTP01 0.5-0.6 PID = 0.2 ppm	
	1.0						
		1.00		CL	CLAY, Grey mottled orange, red and brown, medium plasticity, firm, contains traces of rootlets	NFTP01 1.0-1.1 PID = 0.1 ppm	
		1.10			Test Pit NFTP01 terminated at 1.1m		
	1.5						
	2.0						
	2.5						

NFTP02

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61934
Northings (GDA 94): 32.082677
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Gravelly SAND, orange brown, homogenous,dry, fine-coarse grained sand, fine-coarse grained sand, loose, contains metal picket	NFTP02 0.0-0.1 PID = 0.4 ppm	
		0.10		Fill	Gravelly SAND, orange brown, homogenous,dry, fine-coarse grained sand, fine-coarse grained sand, loose, contains metal picket, black staining and charcoal fragments	NFTP02 0.1.0.2 PID = 0.3 ppm	
	0.5						
		0.50		CL	CLAY, brown mottled orange, damp, high plasticity, firm, contains fine to coarse grave	NFTP02 0.5-0.6 PID = 0.2 ppm	
	1.0						
		1.00		CL	CLAY, orange brown mottled grey, damp, high plasticity, firm, contains fine to coarse gravel	NFTP02 1.0-1.1 PID = 0.2 ppm	
		1.30		CL	CLAY, grey mottled red orange and brown	NFTP02 1.3-1.4 PID = 0.7 ppm	
	1.5						
		1.50			Test Pit NFTP02 terminated at 1.5m		
	2.0						
	2.5						

NFTP03

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61967
Northings (GDA 94): 32.82687
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets and traces of fine to coarse gravel	NFTP03 0.0-0.1 PID = 0.2 ppm NFTP03 0.1-0.15	
	0.5	0.40		Fill	Sandy gravelly CLAY, brown, heterogenous,dry, medium plasticity, stiff, contains fine to coarse gravel	NFTP03 0.4-0.5 PID = 0.3 ppm	
	1.0	0.90		CL	Gravelly CLAY, orange brown, mottled grey, dry, medium plasticity, stiff, contains fine to coarse gravel	NFTP03 0.9-1.0 PID = 0.1 ppm	
	1.5	1.40		CL	Gravelly CLAY, grey, mottled orange, red and brown, dry, medium plasticity, stiff, contains fine to coarse gravel	NFTP03 1.4-1.5 PID = 0.1 ppm	
		1.50			Test Pit NFTP03 terminated at 1.5m		
	2.0						
	2.5						

NFTP04

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61977
Northings (GDA 94): 32.82677
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit	0.5			Fill	Gravelly Silty SAND, light brown, heterogenous,dry, fine-coarese grained, medium-density, loose, contains gravel, cobbles, boulders and rootlets	NFTP04 0.0-0.1 PID = 0.3 ppm NFTP04 0.1-0.15 PID = 0.3 ppm	
	1.0	0.60		CL-GC	Gravelly CLAY, orange brown, mottled grey, dry, medium plasticity, stiff, contains fine to coarse gravel, rootlets and traces of wood fragments	NFTP04 0.6-0.7 PID = 0.4 ppm	
	1.5	1.00		CL	CLAY, Grey mottled orange, red and brown, medium plasticity, dry, stiff, contains rootlets, fine gravel and black staining	NFTP04 1.0-1.1 PID = 0.3 ppm NFTP04 1.4-1.5	NOTE: No staining from 1.1m
	2.0	1.50			Test Pit NFTP04 terminated at 1.5m		
	2.5						

NFTP05

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 2
Pit Dimension (m3):

Eastings (GDA 94): 151.61935
Northings (GDA 94): 32.82594
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP05 0.0-0.1 PID = 0.1 ppm	
		0.10		Fill	Clayey SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP05 0.1-0.15 PID = 0.2 ppm	
		0.40		Fill	gravelly sandy CLAY, brown, heterogenous,dry, medium plasticity, stiff, contains traces of rootlets and wood fragments	NFTP05 0.4-0.5 PID = 0.2 ppm	
	0.5						
		0.90		CL	CLAY, grey, mottled red, orange brown , damp, medium plasticity, stiff, contains wood fragments	NFTP05 0.9-1.0 PID = 0.3 ppm	
	1.0						NOTE: No wood from 1.0m
	1.5					NFTP05 01.5-1.6 PID = 0.2 ppm	
	2.0						
		2.00			Test Pit NFTP05 terminated at 2m		
	2.5						

NFTP06

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61896
Northings (GDA 94): 32.8257
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP06 0.0-0.1 PID = 0.1 ppm	
		0.10		Fill	Sandy CLAY, brown, homogenous,dry, medium plasticity, sofy, contains rootlets and traces of fine to coarse gravel	NFTP06 0.1-0.15 PID = 0.2 ppm	
	0.5						
		0.50		Fill	Sandy CLAY, brown, homogenous,dry, medium plasticity, sofy, contains rootlets and traces of fine to coarse gravel	NFTP06 0.5-0.6 PID = 0.1 ppm	
		0.90		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, stiff, contains rootlets	NFTP06 0.9-1.0 PID = 0.4 ppm	
	1.0						
	1.5						
		1.50			Test Pit NFTP06 terminated at 1.5m		Refusal on Shale
	2.0						
	2.5						

NFTP07

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61899
Northings (GDA 94): 32.82551
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP07 0.0-0.1 PID = 0.2 ppm	
		0.10		Fill	Sandy CLAY, brown, homogenous,dry, medium plasticity, soft, contains rootlets	NFTP07 0.1-0.15 PID = 0.4 ppm	
	0.5					NFTP07 0.4-0.5 PID = 0.3 ppm	
		0.90		CL	CLAY, Grey, mottled orange and red, medium plasticity, dry, stiff, contains rootlets and shale fragments	NFTP07 0.9-1.0 PID = 0.1 ppm	
	1.0	1.00					
	1.5				Test Pit NFTP07 terminated at 1.5m		
	2.0						
	2.5						

NFTP08

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 2
Pit Dimension (m3):

Eastings (GDA 94): 151.61938
Northings (GDA 94): 32.82579
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP08 0.0-0.1 PID = 0.1 ppm	
		0.10		Fill	Sandy CLAY, brown, heterogenous,dry, medium plasticity, soft, contains rootlets and traces of fine gravel	NFTP08 0.1-0.15 PID = 0.2 ppm	
		0.30		Fill	Gravelly sandy CLAY, dark brown, heterogenous,dry, medium plasticity, firm, contains fine coarsed gravel	NFTP08 0.3-0.4 PID = 0.4 ppm	
	0.5						
	1.0						
		1.00		CL	CLAY, grey brown, slightly mottled orange, medium plasticity, stiff, contains fine gravel. Increase in mottling with depth	NFTP08 1.0-1.1 PID = 0.1 ppm	
	1.5						
		1.90		CL	CLAY, grey, mottled red, orange and brown, medium plasticity, stiff, contains traces of roots and fine gravel	NFTP08 1.9-2.0 PID = 0.1 ppm	
	2.0						
		2.00			Test Pit NFTP08 terminated at 2m		
	2.5						

NFTP09

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61933
Northings (GDA 94): 32.82603
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Gravelly Silty SAND, light brown, heterogenous,dry, fine-coarse grained, loose, contains gravel and rootlets	NFTP09 0.0-0.1 PID = 0.4 ppm	
		0.10		Fill	Gravelly sandy CLAY, yellow brown, heterogenous,dry, medium plasticity, stiff, contains fine to coarse grained gravel and rootlets	NFTP09 0.1-0.15	
	0.5						
		0.50		CL	CLAY, grey, mottled red, orange and brown, medium plasticity, stiff, contains traces of roots and fine gravel	NFTP09 0.5-0.6 PID = 0.2 ppm	
	1.0						
		1.00		CL	CLAY, grey, mottled red, orange and brown, medium plasticity, stiff, contains traces of roots and fine gravel. Contains shale fragments from 1.4m	NFTP09 1.0-1.1 PID = 0.1 ppm	
	1.5						
		1.50			Test Pit NFTP09 terminated at 1.5m		
	2.0						
	2.5						

NFTP10

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61983
Northings (GDA 94): 32.82565
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Gravelly sandy CLAY, brown, heterogenous,dry, medium plasticity, firm, contains rootlets fine to coarse gravel	NFTP10 0.0-0.1 PID = 0.3 ppm NFTP10 0.1-0.15 PID = 0.2 ppm	
	0.5	0.40		CL-GC	Gravelly CLAY, yellow brown, slightly mottled grey, dry, medium plasticity, firm, contains fine to coarse grained gravel and rootlets	NFTP10 0.4-0.5 PID = 0.1 ppm	
	1.0	0.90		CL	CLAY, grey, mottled yellow,red and orange, dry, medium plasticity, stiff, contains fine grained gravel, roots and shale fragments	NFTP10 0.9-1.0 PID = 0.1 ppm	
	1.5	1.50			Test Pit NFTP10 terminated at 1.5m		
	2.0						
	2.5						

NFTP11

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61946
Northings (GDA 94): 32.82519
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit	0.5			Fill	Gravelly sandy CLAY, light brown, heterogenous,dry, medium plasticity, stiff, contains rootlets	NFTP11 0.0-0.1 PID = 0.1 ppm NFTP11 0.1-0.15 PID = 0.7 ppm	
	1.0	0.30		Fill	Gravelly sandy CLAY, dark brown, heterogenous,dry, medium plasticity, firm, contains fine to coarse gravel, roots and possible staining	NFTP11 0.3-0.4 PID = 0.5 ppm	
	1.5	1.00		CL-GC	Gravelly CLAY, brown, slightly mottled orange and grey, medium plasticity, firm, contains roots fine to coarse gravel	NFTP11 1.0-1.1 PID = 0.2 ppm	
		1.30		CL	CLAY, grey, mottled orange,red and brown, medium plasticity, stiff, contains fine gravel, shale and roots	NFTP11 1.3-1.4 PID = 0.1 ppm	
	2.0	1.50			Test Pit NFTP11 terminated at 1.5m		
	2.5						

NFTP12

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94): 151.61887
Northings (GDA 94): 32.82526
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Gravelly silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains fine to coarse gravel, rootlets and rusted scrap metal	NFTP12 0.0-0.1 PID = 0.1 ppm NFTP12 0.1-0.2 PID = 0.2 ppm	
	0.5	0.40		Fill	Gravelly sandy CLAY, dark brown, homogenous,dry, medium plasticity, soft, contains fine to coarse gravel and roots	NFTP12 0.4-0.5 PID = 0.2 ppm	
	1.0	0.90		CL	CLAY, brown, slightly mottled grey, medium plasticity, stiff, contains fine to coarse gravel and roots	NFTP12 0.9-1.0 PID = 0.1 ppm	
	1.5	1.20		CL	CLAY, Grey, mottled orange, red and brown, medium plasticity, stiff, contains fine gravel and roots	NFTP12 1.2-1.3 PID = 0.1 ppm	
	2.0	1.50			Test Pit NFTP12 terminated at 1.5m		
	2.5						

NFTP13

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 0.2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Silty SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains rootlets	NFTP13 0.0-0.1 PID = 0.2 ppm	
		0.10		Fill	Clayey SAND, brown, homogenous,dry, fine-medium grained, medium-density, contains small rootlets	NFTP13 0.1-0.15 PID = 0.4 ppm	
		0.20			Test Pit NFTP13 terminated at 0.2m		

0.5
1.0
1.5
2.0
2.5

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

NFTP14

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 0.2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	gravelly sandy CLAY, brown, heterogenous,dry, low plasticity, stiff, contains fine-coarse gravel	NFTP14 0.0-0.1 PID = 0.4 ppm NFTP14 0.1-0.15 PID = 0.3 ppm	
		0.20			Test Pit NFTP14 terminated at 0.2m		
	0.5						
	1.0						
	1.5						
	2.0						
	2.5						

NFTP15

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 24/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 0.2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Gravelly silty SAND, brown, homogenous,dry, fine-medium grained, loose, contains fine-coarse gravel,rootlets and timber fragments from fence post	NFTP15 0.0-0.1 PID = 0.6 ppm NFTP15 0.1-0.2 PID = 0.2 ppm	
	0.5	0.20			Test Pit NFTP15 terminated at 0.2m		
	1.0						
	1.5						
	2.0						
	2.5						

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

PTP01

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 2.2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, contains traces of fine-coarse gravel and roots	PTP01 0.0-0.1 PID = 0.9 ppm	
		0.20		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel		Sour odour
	0.5					PTP01 0.4-0.5 PID = 1.5 ppm	
	1.0					PTP01 0.9-1.0 PID = 1.3 ppm	
	1.5					PTP01 1.4-0.1.5 PID = 2 ppm	
		1.90		CL	CLAY, grey, mottled orange, dry, medium plasticity, firm	PTP01 1.9-2.0 PID = 0.7 ppm	
	2.0					PTP01 2.1-2.2	
		2.20			Test Pit PTP01 terminated at 2.2m		
	2.5						

PTP02

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, contains traces of fine-coarse gravel and roots	PTP02 0.0-0.1 PID = 1.2 ppm	
		0.20		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel		
	0.5					PTP02 0.4-0.5	
	1.0					PTP02 0.9-1.0	
	1.5	1.50		CL	CLAY, grey, mottled orange, dry, medium plasticity, firm	PTP02 1.5-0.1.6	
	2.0					PTP02 1.9-2.0	
		2.00			Test Pit PTP02 terminated at 2m		
	2.5						

PTP03

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.7
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, contains traces of fine-coarse gravel and roots	PTP03 0.0-0.1	
		0.20		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel		
	0.5					PTP03 0.4-0.5	
	1.0					PTP03 0.9-1.0	
	1.5						
		1.50		CL	CLAY, grey, mottled orange, dry, medium plasticity, firm	PTP03 1.6-0.1.7	
		1.70			Test Pit PTP03 terminated at 1.7m		
	2.0						
	2.5						

PTP04

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.7
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, fine to medium grained,contains fine-medium gravel and roots	PTP04 0.0-0.1 PID = 1 ppm	
		0.20		Fill	Gravelly CLAY, dark brown to black, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel		Sour odour
	0.5					PTP04 0.4-0.5 PID = 1.1 ppm	
	1.0					PTP04 0.9-1.0	
	1.5						
		1.50		CL	CLAY, grey, mottled orange and red, damp, medium plasticity, firm, contains some shale fragments	PTP04 1.6-0.1.7 PID = 2.7 ppm	
		1.70			Test Pit PTP04 terminated at 1.7m		
	2.0						
	2.5						

PTP05

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.7
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, fine to medium grained,contains fine-medium gravel and roots	PTP05 0.0-0.1	
		0.20		Fill	Gravelly CLAY, dark brown to black, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel		Sour odour
	0.5					PTP05 0.4-0.5	
	1.0					PTP05 0.9-1.0 PID = 1.5 ppm	
	1.5	1.50		CL	CLAY, grey, mottled orange and red, damp, medium plasticity, firm, contains some shale fragments	PTP05 1.6-0.1.7	
		1.70			Test Pit PTP05 terminated at 1.7m		
	2.0						
	2.5						

PTP06

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.9
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, dry, dense, fine to medium grained,contains gravel and roots	PTP06 0.0-0.1	
		0.20		Fill	Gravelly CLAY, dark brown to black, heterogenous, moist to wet, medium plasticity, soft, contains fine to coarse gravel		Sour odour
	0.5					PTP06 0.4-0.5 PID = 2.4 ppm	
		0.90		Fill	SAND, black, heterogenous, saturated, very loose, coarse grained,contains roots	PTP06 0.9-1.0 PID = 2.9 ppm	Water flowing through layer
	1.0						
		1.40		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, firm, contains some shale fragments		
	1.5					PTP06 1.6-1.7	
		1.90			Test Pit PTP06 terminated at 1.9m		
	2.0						
	2.5						

PTP07

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, dry, dense, fine to medium grained,contains gravel and roots	PTP07 0.0-0.1	
		0.20		Fill	Gravelly CLAY, dark brown to black, heterogenous, moist to wet, medium plasticity, soft, contains fine to coarse gravel		Sour odour
	0.5					PTP07 0.4-0.5	
		0.80		Fill	SAND, black, heterogenous, saturated, very loose, coarse grained,contains roots	PTP07 0.8-0.9 PID = 1.9 ppm	Water flowing through layer
	1.0						
		1.40		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, firm, contains some shale fragments	PTP07 1.4-1.5	
	1.5	1.50			Test Pit PTP07 terminated at 1.5m		
	2.0						
	2.5						

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

PTP08

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, fine to medium grained,contains fine-medium gravel, roots and construction rubble (concrete and wood)	PTP08 0.0-0.1	Construction waste on surface and upto 0.5m
		0.20		Fill	Gravelly CLAY, dark brown to black, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel and construction rubble (concrete and wood) to 0.5 bgl		
	0.5					PTP08 0.4-0.5	
	1.0					PTP08 1.1-1.2	
		1.20			Test Pit PTP08 terminated at 1.2m		
	1.5						
	2.0						
	2.5						

PTP09

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, fine to medium grained,contains gravel and roots	PTP09 0.0-0.1	
		0.10		Fill	Gravelly CLAY, yellow grey, slightly mottled, medium plasticity, soft, contains fine to coarse gravel		Sour odour and black staining
	0.5					PTP09 0.4-0.5	
		0.90		Fill	SAND, black, heterogenous, saturated, very loose, coarse grained,contains roots	PTP09 0.9-1.0 PID = 2.3 ppm	Water flowing through layer
	1.0	1.00		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, firm		
	1.5					PTP09 1.4-1.5	
		1.50			Test Pit PTP09 terminated at 1.5m		
	2.0						
	2.5						

PTP10

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, brown, heterogenous, damp, dense, fine to medium grained,contains gravel and roots	PTP10 0.0-0.1	
		0.20		Fill	Gravelly CLAY, dark brown to black, slightly mottled, medium plasticity, soft, contains fine to coarse gravel		Sour odour
	0.5					PTP10 0.4-0.5	
	1.0					PTP10 0.9-1.0 PID = 1.8 ppm	
	1.5					PTP10 1.5-1.6	
		1.70		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, firm		
	2.0					PTP10 1.9-2.0	
		2.00			Test Pit PTP10 terminated at 2m		
	2.5						

PTP11

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 0.8
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, dry, dense, fine to medium grained	PTP11 0.0-0.1	
		0.20		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, firm		
	0.5					PTP11 0.4-0.5	
		0.80			Test Pit PTP11 terminated at 0.8m		
	1.0						
	1.5						
	2.0						
	2.5						

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

PTP12

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, dry, dense, fine to medium grained	PTP12 0.0-0.1	
		0.20		CL	CLAY, grey, mottled orange and red, dry, medium plasticity, firm	PTP12 0.2-0.3	
	0.5						
	1.0					PTP12 0.9-1.0	
		1.00			Test Pit PTP12 terminated at 1m		
	1.5						
	2.0						
	2.5						

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

PTP13

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, dry, dense, fine to medium grained	PTP13 0.0-0.1	
		0.20		CL	CLAY, yellow grey, mottled orange, medium plasticity, firm contains roots	PTP13 0.2-0.3	
	0.5						
	1.0						
		1.30		GW	Shale	PTP13 1.3-1.4	
	1.5	1.50			Test Pit PTP13 terminated at 1.5m		
	2.0						
	2.5						

PTP14

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots	PTP14 0.0-0.1	Construction waste (wooden posts and concrete) on surface and upto 0.6m
		0.30		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel	PTP14 0.3-0.4	Sour odour
	0.5						
		0.90		CL	CLAY, red, mottled grey, damp, medium plasticity, firm, contains roots	PTP14 0.9-1.0	
	1.0						
		1.40		CL	CLAY, grey, mottled red and orange, damp, medium plasticity, firm	PTP14 1.4-1.5	
	1.5						
		1.50			Test Pit PTP14 terminated at 1.5m		
	2.0						
	2.5						

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

PTP15

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 25/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots	PTP15 0.0-0.1	Polypipe protruding from ground at surface
		0.30		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel	PTP15 0.3-0.4	
		0.40		CL	CLAY, red, slightly mottled grey, damp, medium plasticity, firm, contains roots	PTP15 0.4-0.5	
	0.5						
		0.80		CL	CLAY, grey, mottled red and orange, dry, medium plasticity, firm	PTP15 0.9-1.0	
	1.0	1.00			Test Pit PTP15 terminated at 1m		
	1.5						
	2.0						
	2.5						

PTP16

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 26/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.4
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots	PTP16 0.0-0.1 PID = 0.1 ppm	
		0.30		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel and charcoal wood fragments	PTP16 0.3-0.4 PID = 0.2 ppm	Sour odour
	0.5	0.40		CL	CLAY, red, slightly mottled grey, damp, medium plasticity, firm, contains roots	PTP16 0.4-0.5 PID = 0.1 ppm	
	1.0	0.80		CL	CLAY, grey, mottled red and orange, dry, medium plasticity, firm	PTP16 0.8-0.9 PID = 0.1 ppm	
	1.5	1.40			Test Pit PTP16 terminated at 1.4m		
	2.0						
	2.5						

TEST PIT JBSG TEST PIT - 2017.GPJ GINT STD AUSTRALIA.GDT 17/8/18

PTP17

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 26/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots	PTP17 0.0-0.1 PID = 0 ppm	
		0.20		Fill	Gravelly CLAY, dark brown, heterogenous, damp, medium plasticity, firm, contains fine to coarse gravel and charcoal wood fragments	PTP17 0.2-0.3	
	0.5						
	1.0	1.00		CL	CLAY, grey, mottled red and orange, dry, medium plasticity, firm	PTP17 1.2-1.3	
	1.5	1.50			Test Pit PTP17 terminated at 1.5m		
	2.0						
	2.5						

PTP18

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 26/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
Test Pit	0.0			Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots	PTP18 0.0-0.1 PID = 0 ppm	
		0.20		Fill	Sandy CLAY, dark brown, homogenous, dry, low plasticity, very soft, contains fine to coarse gravel	PTP18 0.2-0.3 PID = 0 ppm	Slightly sour odour
	0.5						
		0.80		CL-GC	Gravelly CLAY, red brown, slightly mottled, damp, medium plasticity, firm, contains fine to coarse gravel	PTP18 0.8-0.9 PID = 0 ppm	
	1.0						
		1.30		CL-GC	Gravelly CLAY, grey, mottled red and orange, medium plasticity, firm, contains fine to coarse gravel	PTP18 1.4-1.5 PID = 0 ppm	
	1.5						
		1.50			Test Pit PTP18 terminated at 1.5m		
	2.0						
	2.5						

PTP19

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 26/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 1.5
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples / Tests / Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots	PTP19 0.0-0.1 PID = 0 ppm	Construction waste at surface
		0.20		Fill	Sandy CLAY, dark brown, homogenous, dry, low plasticity, very soft, contains fine to coarse gravel	PTP19 0.2-0.3 PID = 0 ppm	Slightly sour odour
	0.5						
		0.90		CL-GC	Gravelly CLAY, red brown, slightly mottled, damp, medium plasticity, firm, contains fine to coarse gravel	PTP19 0.9-1.0 PID = 0 ppm	
	1.0						
		1.30		CL-GC	Gravelly CLAY, grey, mottled red and orange, medium plasticity, firm, contains fine to coarse gravel and shale fragments		
	1.5					PTP19 1.4-1.5 PID = 0.1 ppm	
		1.50			Test Pit PTP19 terminated at 1.5m		
	2.0						
	2.5						

PTP20

Project Number: 54892
Client: Broaden Management Pty Ltd
Project Name: Black Hill PSI DSI RAP
Site Address: Black Hill Road,. Black Hill

Date: 26/07/2018
Logged By: MC
Contractor: KCE Pty Ltd
Total Hole Depth (mbgs): 2
Pit Dimension (m3):

Eastings (GDA 94):
Northings (GDA 94):
Zone/Area/Permit#: Zone 56
Reference Level: Ground Surface
Elevation (m):

Method	Depth (mbgs)	Contact (mbgs)	Graphic Log	Lithological Class	Lithological Description	Samples Tests Remarks	Additional Observations
Test Pit				Fill	Clayey SAND, dark brown, homogenous, damp, dense, fine to medium grained, contains roots and fine to coarse gravel	PTP20 0.0-0.1 PID = 0.1 ppm	
		0.20		Fill	Sandy CLAY, grey brown, homogenous, dry, low plasticity, very soft, contains fine to coarse gravel	PTP20 0.2-0.3 PID = 0.1 ppm	
	0.5						
	1.0						
		1.10		CL-GC	Gravelly CLAY, red brown, slightly mottled, damp, medium plasticity, firm, contains fine to coarse gravel	PTP20 1.1-1.2 PID = 0.1 ppm	
	1.5						
		1.80		CL-GC	Gravelly CLAY, grey, mottled red and orange, medium plasticity, firm, contains fine to coarse gravel and shale fragments	PTP20 1.8-1.9 PID = 0 ppm	
	2.0						
		2.00			Test Pit PTP20 terminated at 2m		
	2.5						

Appendix K Site Walk Over Photograph Log

PHOTO 1: PARTIALLY BURIED WASTE INCLUDING A METAL DOOR FRAME, GARDEN HOSE, TIMBER, BRICK.

PHOTO 2: RUSTED METAL SHEETING AND WIRE ON SURFACE.

PHOTO 3: BUILDING FOUNDATIONAL CONCRETE AND TIMBER POSTS WRAPPED IN WIRE.

PHOTO 4: BUILDING FOUNDATIONAL CONCRETE.

JBS&G

Job No: 54892

Client: Broaden Management

Version: RO1	Date: 02/08/2018
Drawn By: JS	Checked By: KM

Not to Scale

Coord. Sys n/a

John Renshaw Drive
Black Hill, NSW

SITE WALK OVER PHOTOGRAPH LOG

APPENDIX K

PHOTO 5: PARTIALLY BURIED RUSTED METAL SHEETING AND CONCRETE FOUNDATION SLABS.

PHOTO 6: LARGE CONCRETE SLABS AND TIMBER ON SURFACE.

PHOTO 7: REMAINS OF FORMER BRIDGE, INCLUDING WIRE, POLES, BRICK, CONCRETE, PIPING.

PHOTO 8: POSSIBLE DRAINAGE FEATURE, INCLUDING PARTIALLY BURIED BRICK, CONCRETE AND TIMBER.

JBS&G

Job No: 54892

Client: Broaden Management

Version: RO1	Date: 02/08/2018
Drawn By: JS	Checked By: KM

Not to Scale

Coord. Sys n/a

John Renshaw Drive
Black Hill, NSW

SITE WALK OVER PHOTOGRAPH LOG

APPENDIX K

PHOTO 9: MINOR DUMPED BRICK AND CONCRETE ON SURFACE.

PHOTO 10: LIKELY STOCKPILED BRICK AND CONCRETE.

PHOTO 11: TIMBER, METAL, CONCRETE AND BRICK ON SURFACE.

PHOTO 12: ELECTRICAL WIRE AND METAL POLE.

JBS&G

Job No: 54892

Client: Broaden Management

Version: RO1	Date: 02/08/2018
Drawn By: JS	Checked By: KM

Not to Scale

Coord. Sys n/a

John Renshaw Drive
Black Hill, NSW

SITE WALK OVER PHOTOGRAPH LOG

APPENDIX K

PHOTO 13: MINOR RUSTED METAL RINGS, PLASTIC SHEET FRAGMENTS, PLASTIC MESH, WIRE AND METAL PIPE.

PHOTO 14: BROKEN CURVED CONCRETE SLABS CONTAINING REINFORCING WIRE.

PHOTO 15: BUILDING DEBRIS PREDOMINATELY BROKEN CONCRETE SLABS, BRICK, AND PIPING.

PHOTO 16: MINOR CONCRETE AND BRICK.

JBS&G

Job No: 54892

Client: Broaden Management

Version: RO1	Date: 02/08/2018
Drawn By: JS	Checked By: KM

Not to Scale

Coord. Sys n/a

John Renshaw Drive
Black Hill, NSW

SITE WALK OVER PHOTOGRAPH LOG

APPENDIX K

PHOTO 17: MINOR SURFACE DEBRIS INCLUDING TIMBER, METAL FENCING AND FRAME, METAL SHEETING AND WIRE.

PHOTO 18: SOIL STOCKPILE, A SINGLE BRICK WAS IDENTIFIED ON THE SURFACE, NO OTHER DEBRIS.

PHOTO 19: METAL POLES WITH CONCRETE FOUNDATION ATTACHED.

PHOTO 20: REMAINS OF FORMER STRUCTURE INCLUDING CONCRETE SLABS, METAL BOX, POLES AND TIMBER.

JBS&G

Job No: 54892

Client: Broaden Management

Version: RO1	Date: 02/08/2018
Drawn By: JS	Checked By: KM

Not to Scale

Coord. Sys n/a

John Renshaw Drive
Black Hill, NSW

SITE WALK OVER PHOTOGRAPH LOG

APPENDIX K

Appendix L Laboratory Documentation

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: BS 54892
PROJECT NAME: Black Hill
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: SMW | MC
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) SScott@jbsg.com.au; (3) MCover@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
Analysis to be emailed through.
* Bag = Asbestos bag.

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E. COLI/COLIFORMS	B19 SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
NFTP01 0.0-0.1	Soil	24.7		Bag+Jar+Ice		/	/	/	/	/	/			
NFTP01 0.5-0.6				Jar+Ice							/			
NFTP01 0.1-0.15				Bag+Jar+Ice							/			
NFTP01 1.0-1.1				Jar+Ice							/			
NFTP02 0.0-0.1				Bag+Jar+Ice							/			
NFTP02 0.1-0.2				Bag+Jar+Ice		/	/	/	/	/	/			
NFTP02 0.5-0.6				Jar+Ice							/			
NFTP02 1.0-1.1				S							/			
NFTP02 1.3-1.4				↓							/			
NFTP03 0.0-0.1				Bag+Jar+Ice		/	/	/	/	/	/			
NFTP03 0.1-0.15				↓							/			
NFTP03 0.4-0.5				Jar+Ice							/			
NFTP03 0.9-1.0				↓							/			
NFTP03 1.4-1.5				↓							/			
NFTP04 0.0-0.1				Bag+Jar+Ice		/	/	/	/	/	/			
NFTP04 0.1-0.15				Bag+Jar+Ice							/			
NFTP04 0.6-0.7				Jar+Ice							/			
NFTP04 1.0-1.1				Jar+Ice							/			
NFTP05 0.0-0.1	↓	↓		Bag+Jar+Ice		/	/	/	/	/				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No..... Intact..... Broken.....
OF: JBS&G	TRANSPORT CO.	DATE:	COOLER TEMP..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	OF: NAME: DATE:	COOLER SEAL – Yes..... No..... Intact..... Broken.....
OF:	TRANSPORT CO		COOLER TEMP..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

Will O'Haire
609429 26/7/15

CHAIN OF CUSTODY

JBS&G

PROJECT NO.:	LABORATORY BATCH NO.:
PROJECT NAME:	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688	
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au	

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E. COLI / COLIFORMS	B10 SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
NFTP05 0.1-0.15	Soil	24.7		Bag + Jar + Ice							✓			
NFTP05 0.4-0.5				Jar + Ice							✓			
NFTP05 0.9-1.0				↓							✓			
NFTP05 1.5-1.6				↓							✓			
NFTP06 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP06 0.1-0.15				Bag + Jar + Ice							✓			
NFTP06 0.9-1.0				Jar + Ice							✓			
NFTP07 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓	✓			
NFTP07 0.1-0.15				Bag + Jar + Ice							✓			
NFTP07 0.4-0.5				Jar + Ice							✓			
NFTP07 0.9-1.0				↓							✓			
NFTP08 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP08 0.1-0.15				Bag + Jar + Ice							✓			
NFTP08 0.3-0.4				Jar + Ice							✓			
NFTP08 1.0-1.1											✓			
NFTP08 1.9-2.0				↓							✓			
NFTP09 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP09 0.1-0.15				Bag + Jar + Ice							✓			
NFTP09 0.5-0.6				Jar + Ice							✓			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: SUE DATE: 25/7/18 OF: 9:25AM	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.		COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Will O'Haire
609429 26/7/18

CHAIN OF CUSTODY

JBS&G

PROJECT NO.:	LABORATORY BATCH NO.:
PROJECT NAME:	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E. COLI / COLIFORMS	B1Q SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
NFTP9 0.0-0.1				Jar + Ice							✓			
NFTP10 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP10 0.10-0.15				Bag + Jar + Ice							✓			
NFTP10 0.4-0.5				Jar + Ice							✓			
NFTP10 0.9-1.0				↓							✓			
NFTP11 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP11 0.1-0.15				↓							✓			
~~NFTP11 0.5-0.6~~				↓							✓			
NFTP11 1.0-1.1				Jar + Ice							✓			
NFTP11 1.3-1.4				↓							✓			
NFTP12 0.0-0.1				Bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP12 0.1-0.2				↓							✓			
NFTP12 0.4-0.5				Jar + Ice							✓			
NFTP12 0.9-1.0				↓							✓			
NFTP12 1.2-1.3				↓							✓			
NFTP13 0.0-0.1				bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP13 0.1-0.15				Jar + Ice							✓			
NFTP14 0.0-0.1				bag + Jar + Ice		✓	✓	✓	✓	✓				
NFTP14 0.1-0.15				Jar + Ice							✓			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Will O'Haire
26/7/18 609429

CHAIN OF CUSTODY

JBS&G

PROJECT NO.:	LABORATORY BATCH NO.:
PROJECT NAME:	SAMPLERS:
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....@jbsg.com.au; (3) .....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E.COLI / COLI FORMS	B19 SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
NFTP15 0.0-0.1	Soil	24-7		Bag + Jar Ice		/	/	/	/	/				
NFTP15 0.1-0.2	↓	↓		↓							/			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No..... Intact..... Broken.....
OF: JBS&G	TRANSPORT CO.	DATE:	COOLER TEMP .....deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No..... Intact..... Broken.....
OF:	TRANSPORT CO	OF:	COOLER TEMP .....deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

Will O'Haire
26/7/18 609429

eurofins | mgt

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW) P/L**
Contact name:	John Scott
Project name:	BLACK HILL
Project ID:	54892
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Jul 26, 2018 9:21 AM
Eurofins | mgt reference:	**609429**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 10.3 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

NFTP04_1.4-1.5 + NFTP06_0.5-0.6 RECEIVED EXTRA PLACED ON HOLD. NFTP11_0.3-0.4 extra sample received (Asbestos bag), sample placed on hold.

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8415 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to John Scott - jscott@jbsg.com.au.

Note: A copy of these results will also be delivered to the general JBS & G Australia (NSW) P/L email address.

eurofins | mgt

30 years Testing For Life 1987–2017
Celebrating 30 years Testing and Protecting Human Health

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **John Scott**

Report **609429-S**
Project name BLACK HILL
Project ID 54892
Received Date Jul 26, 2018

Client Sample ID			NFTP01_0.0-0.1	NFTP02_0.1-0.2	NFTP03_0.0-0.1	NFTP04_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29562**	**M18-Jl29563**	**M18-Jl29564**	**M18-Jl29565**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	69	< 50	81	51
TRH C10-36 (Total)	50	mg/kg	69	< 50	81	51
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	0.9	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	0.3	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	1.2	< 0.3
4-Bromofluorobenzene (surr.)	1	%	133	84	83	75
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			NFTP01_0.0-0.1	NFTP02_0.1-0.2	NFTP03_0.0-0.1	NFTP04_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29562**	**M18-Jl29563**	**M18-Jl29564**	**M18-Jl29565**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	72	120	77	128
p-Terphenyl-d14 (surr.)	1	%	82	77	79	136
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	103	101	99	92
Tetrachloro-m-xylene (surr.)	1	%	103	113	103	97
Nitrate & Nitrite (as N)	5	mg/kg	< 5	< 5	< 5	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	1800	190	3600	1500
Total Nitrogen (as N)	10	mg/kg	1800	190	3600	1500
Phosphorus	5	mg/kg	290	75	270	70
% Moisture	1	%	15	14	14	7.8
Alkali Metals						
Potassium	5	mg/kg	680	850	840	990

Client Sample ID			NFTP01_0.0-0.1	NFTP02_0.1-0.2	NFTP03_0.0-0.1	NFTP04_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29562**	**M18-Jl29563**	**M18-Jl29564**	**M18-Jl29565**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	8.9	4.6	5.9	3.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	17	17	14	7.1
Copper	5	mg/kg	6.2	8.5	8.6	7.1
Lead	5	mg/kg	28	21	24	10
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	10	17	12	9.1
Zinc	5	mg/kg	26	38	45	47
Pathogens						
E.coli	1	MPN/g	< 10	20	< 10	< 10
Thermotolerant Coliforms	1	MPN/g	[M10]10	[M10]20	[M10]< 10	[M10]< 10

Client Sample ID			NFTP05_0.0-0.1	NFTP06_0.0-0.1	NFTP07_0.0-0.1	NFTP08_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29566**	**M18-Jl29567**	**M18-Jl29568**	**M18-Jl29569**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	81	< 50	63	54
TRH C29-C36	50	mg/kg	140	80	100	80
TRH C10-36 (Total)	50	mg/kg	221	80	163	134
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	1.5	0.7	0.3	< 0.2
o-Xylene	0.1	mg/kg	0.6	0.2	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	2.1	0.9	0.4	< 0.3
4-Bromofluorobenzene (surr.)	1	%	133	149	90	101
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	190	110	140	110
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			NFTP05_0.0-0.1	NFTP06_0.0-0.1	NFTP07_0.0-0.1	NFTP08_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29566**	**M18-Jl29567**	**M18-Jl29568**	**M18-Jl29569**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	75	70	71	71
p-Terphenyl-d14 (surr.)	1	%	76	72	72	66
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	145	99	146	89
Tetrachloro-m-xylene (surr.)	1	%	137	98	146	108
Nitrate & Nitrite (as N)	5	mg/kg	< 5	< 5	< 5	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	3400	2600	2300	2100
Total Nitrogen (as N)	10	mg/kg	3400	2600	2300	2100
Phosphorus	5	mg/kg	460	210	350	180
% Moisture	1	%	22	14	19	16

Client Sample ID			NFTP05_0.0-0.1	NFTP06_0.0-0.1	NFTP07_0.0-0.1	NFTP08_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29566**	**M18-Jl29567**	**M18-Jl29568**	**M18-Jl29569**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Alkali Metals						
Potassium	5	mg/kg	890	690	720	840
Heavy Metals						
Arsenic	2	mg/kg	5.0	6.5	3.8	8.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	14	10	19
Copper	5	mg/kg	7.1	< 5	5.5	7.4
Lead	5	mg/kg	23	23	25	23
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	11	7.3	7.3	9.9
Zinc	5	mg/kg	51	25	33	28
Pathogens						
E.coli	1	MPN/g	< 10	10	< 10	< 10
Thermotolerant Coliforms	1	MPN/g	[M10]41	[M10]30	[M10]10	[M10]< 10

Client Sample ID			NFTP09_0.0-0.1	NFTP10_0.0-0.1	NFTP11_0.0-0.1	NFTP12_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29570**	**M18-Jl29571**	**M18-Jl29572**	**M18-Jl29573**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	56
TRH C29-C36	50	mg/kg	100	59	< 50	100
TRH C10-36 (Total)	50	mg/kg	100	59	< 50	156
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	86	78	79	143
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	110	< 100	< 100	130
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			NFTP09_0.0-0.1	NFTP10_0.0-0.1	NFTP11_0.0-0.1	NFTP12_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29570**	**M18-Jl29571**	**M18-Jl29572**	**M18-Jl29573**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	74	78	78	76
p-Terphenyl-d14 (surr.)	1	%	70	79	73	70
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	113	125	84	91
Tetrachloro-m-xylene (surr.)	1	%	102	115	97	98

Client Sample ID			NFTP09_0.0-0.1	NFTP10_0.0-0.1	NFTP11_0.0-0.1	NFTP12_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29570**	**M18-Jl29571**	**M18-Jl29572**	**M18-Jl29573**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit				
Nitrate & Nitrite (as N)	5	mg/kg	< 5	< 5	< 5	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	1700	1200	1300	5000
Total Nitrogen (as N)	10	mg/kg	1700	1200	1300	5000
Phosphorus	5	mg/kg	160	100	100	490
% Moisture	1	%	10	21	6.0	15
Alkali Metals						
Potassium	5	mg/kg	730	950	1300	590
Heavy Metals						
Arsenic	2	mg/kg	15	12	< 2	8.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	28	24	< 5	14
Copper	5	mg/kg	7.0	11	< 5	7.7
Lead	5	mg/kg	25	21	10	24
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	10	6.6	5.2	8.8
Zinc	5	mg/kg	24	26	44	71
Pathogens						
E.coli	1	MPN/g	< 10	< 10	< 10	< 10
Thermotolerant Coliforms	1	MPN/g	[M10]< 10	[M10]< 10	[M10]< 10	[M10]< 10

Client Sample ID			NFTP13_0.0-0.1	NFTP14_0.0-0.1	NFTP15_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29574**	**M18-Jl29575**	**M18-Jl29576**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	51
TRH C29-C36	50	mg/kg	76	61	87
TRH C10-36 (Total)	50	mg/kg	76	61	138
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	0.2
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	0.7
4-Bromofluorobenzene (surr.)	1	%	85	121	117
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	110	< 100	110
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100

Client Sample ID			NFTP13_0.0-0.1	NFTP14_0.0-0.1	NFTP15_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29574**	**M18-Jl29575**	**M18-Jl29576**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68	72	87
p-Terphenyl-d14 (surr.)	1	%	63	70	78
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	92	73	117
Tetrachloro-m-xylene (surr.)	1	%	99	84	108

Client Sample ID			NFTP13_0.0-0.1	NFTP14_0.0-0.1	NFTP15_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl29574**	**M18-Jl29575**	**M18-Jl29576**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit			
Nitrate & Nitrite (as N)	5	mg/kg	< 5	< 5	49
Total Kjeldahl Nitrogen (as N)	10	mg/kg	3300	1300	2500
Total Nitrogen (as N)	10	mg/kg	3300	1300	2550
Phosphorus	5	mg/kg	310	87	220
% Moisture	1	%	17	11	6.4
Alkali Metals					
Potassium	5	mg/kg	750	890	720
Heavy Metals					
Arsenic	2	mg/kg	4.2	5.1	7.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	18	17
Copper	5	mg/kg	6.4	13	5.0
Lead	5	mg/kg	26	15	21
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	11	11	8.7
Zinc	5	mg/kg	48	27	25
Pathogens					
E.coli	1	MPN/g	< 10	< 10	< 10
Thermotolerant Coliforms	1	MPN/g	[M10]< 10	[M10]< 10	[M10]< 10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jul 26, 2018	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Jul 26, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 26, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 26, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 26, 2018	14 Day
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Melbourne	Jul 26, 2018	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Melbourne	Jul 26, 2018	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
E.coli	Melbourne	Jul 27, 2018	72 Hour
- Method: LTM-MIC-6621 E.Coli and Total Coliforms by the MPN			
Thermotolerant Coliforms	Melbourne	Jul 27, 2018	72 Hour
- Method: Inhouse: Thermotolerant Coliforms in Soil by MPN*			
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Melbourne	Jul 27, 2018	28 Day
- Method: APHA 4500-NO3/NO2 Nitrate-Nitrite Nitrogen by FIA			
Total Kjeldahl Nitrogen (as N)	Melbourne	Jul 26, 2018	28 Day
- Method: LTM-INO-4310 TKN in Waters & Soils by FIA			
Eurofins | mgt Suite B19			
Phosphorus	Melbourne	Jul 26, 2018	180 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Alkali Metals	Melbourne	Jul 26, 2018	180 Day
- Method: USEPA 6010 Alkali Metals			
% Moisture	Melbourne	Jul 26, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609429
Phone: 02 8245 0300
Fax:

Received: Jul 26, 2018 9:21 AM
Due: Aug 2, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
External Laboratory													
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
1	NFTP01_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29562	X	X		X	X	X	X	X
2	NFTP02_0.1-0.2	Jul 24, 2018		Soil	M18-Jl29563	X	X		X	X	X	X	X
3	NFTP03_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29564	X	X		X	X	X	X	X
4	NFTP04_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29565	X	X		X	X	X	X	X
5	NFTP05_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29566	X	X		X	X	X	X	X
6	NFTP06_0.0-	Jul 24, 2018		Soil	M18-Jl29567	X	X		X	X	X	X	X

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16 Mars Road
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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.1												
7	NFTP07_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29568	X	X		X	X	X	X	X
8	NFTP08_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29569	X	X		X	X	X	X	X
9	NFTP09_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29570	X	X		X	X	X	X	X
10	NFTP10_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29571	X	X		X	X	X	X	X
11	NFTP11_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29572	X	X		X	X	X	X	X
12	NFTP12_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29573	X	X		X	X	X	X	X
13	NFTP13_0.0-	Jul 24, 2018		Soil	M18-Jl29574	X	X		X	X	X	X	X

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Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.1												
14	NFTP14_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29575	X	X		X	X	X	X	X
15	NFTP15_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29576	X	X		X	X	X	X	X
16	NFTP01_0.5-0.6	Jul 24, 2018		Soil	M18-Jl29577			X					
17	NFTP01_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29578			X					
18	NFTP01_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29579			X					
19	NFTP02_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29580			X					
20	NFTP02_0.5-	Jul 24, 2018		Soil	M18-Jl29581			X					

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Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.6												
21	NFTP02_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29582			X					
22	NFTP02_1.3-1.4	Jul 24, 2018		Soil	M18-Jl29583			X					
23	NFTP03_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29584			X					
24	NFTP03_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29585			X					
25	NFTP03_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29586			X					
26	NFTP03_1.4-1.5	Jul 24, 2018		Soil	M18-Jl29587			X					
27	NFTP04_0.1-	Jul 24, 2018		Soil	M18-Jl29588			X					

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
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NATA # 1261
Site # 1254 & 14271

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Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.15												
28	NFTP04_0.6-0.7	Jul 24, 2018		Soil	M18-Jl29589			X					
29	NFTP04_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29590			X					
30	NFTP05_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29591			X					
31	NFTP05_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29592			X					
32	NFTP05_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29593			X					
33	NFTP05_1.5-1.6	Jul 24, 2018		Soil	M18-Jl29594			X					
34	NFTP06_0.1-	Jul 24, 2018		Soil	M18-Jl29595			X					

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609429
Phone: 02 8245 0300
Fax:

Received: Jul 26, 2018 9:21 AM
Due: Aug 2, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.15												
35	NFTP06_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29596			X					
36	NFTP07_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29597			X					
37	NFTP07_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29598			X					
38	NFTP07_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29599			X					
39	NFTP08_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29600			X					
40	NFTP08_0.3-0.4	Jul 24, 2018		Soil	M18-Jl29601			X					
41	NFTP08_1.0-	Jul 24, 2018		Soil	M18-Jl29602			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	1.1												
42	NFTP08_1.9-2.6	Jul 24, 2018		Soil	M18-Jl29603			X					
43	NFTP09_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29604			X					
44	NFTP09_0.5-0.6	Jul 24, 2018		Soil	M18-Jl29605			X					
45	NFTP09_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29606			X					
46	NFTP10_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29607			X					
47	NFTP10_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29608			X					
48	NFTP10_0.9-	Jul 24, 2018		Soil	M18-Jl29609			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	1.0												
49	NFTP11_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29610			X					
50	NFTP11_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29611			X					
51	NFTP11_1.3-1.4	Jul 24, 2018		Soil	M18-Jl29612			X					
52	NFTP12_0.1-0.2	Jul 24, 2018		Soil	M18-Jl29613			X					
53	NFTP12_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29614			X					
54	NFTP12_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29615			X					
55	NFTP12_1.2-	Jul 24, 2018		Soil	M18-Jl29616			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	1.3												
56	NFTP13_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29617			X					
57	NFTP14_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29618			X					
58	NFTP15_0.1-0.2	Jul 24, 2018		Soil	M18-Jl29619			X					
59	NFTP04_1.4-1.5	Jul 24, 2018		Soil	M18-Jl29620			X					
60	NFTP06_0.5-0.6	Jul 24, 2018		Soil	M18-Jl29621			X					
61	NFTP11_0.3-0.4	Jul 24, 2018		Soil	M18-Jl32244			X					
Test Counts						15	15	46	15	15	15	15	15

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Nitrate & Nitrite (as N)	mg/kg	< 5			5	Pass	
Total Kjeldahl Nitrogen (as N)	mg/kg	< 10			10	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	87			70-130	Pass	
TRH C10-C14	%	96			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	91			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	99			70-130	Pass	
m&p-Xylenes	%	99			70-130	Pass	
Xylenes - Total	%	99			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	116			70-130	Pass	
TRH C6-C10	%	83			70-130	Pass	
TRH >C10-C16	%	99			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	83			70-130	Pass	
Acenaphthylene	%	103			70-130	Pass	
Anthracene	%	73			70-130	Pass	
Benz(a)anthracene	%	98			70-130	Pass	
Benzo(a)pyrene	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	%	104			70-130	Pass	
Benzo(g.h.i)perylene	%	85			70-130	Pass	
Benzo(k)fluoranthene	%	72			70-130	Pass	
Chrysene	%	88			70-130	Pass	
Dibenz(a.h)anthracene	%	102			70-130	Pass	
Fluoranthene	%	87			70-130	Pass	
Fluorene	%	70			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	102			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	%	100			70-130	Pass	
Phenanthrene	%	104			70-130	Pass	
Pyrene	%	89			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	123			70-130	Pass	
4.4'-DDE	%	120			70-130	Pass	
4.4'-DDT	%	79			70-130	Pass	
a-BHC	%	118			70-130	Pass	
Aldrin	%	122			70-130	Pass	
b-BHC	%	112			70-130	Pass	
d-BHC	%	110			70-130	Pass	
Dieldrin	%	119			70-130	Pass	
Endosulfan I	%	113			70-130	Pass	
Endosulfan II	%	104			70-130	Pass	
Endosulfan sulphate	%	98			70-130	Pass	
Endrin	%	111			70-130	Pass	
Endrin aldehyde	%	109			70-130	Pass	
Endrin ketone	%	102			70-130	Pass	
g-BHC (Lindane)	%	114			70-130	Pass	
Heptachlor	%	105			70-130	Pass	
Heptachlor epoxide	%	115			70-130	Pass	
Hexachlorobenzene	%	115			70-130	Pass	
Methoxychlor	%	99			70-130	Pass	
LCS - % Recovery							
Total Kjeldahl Nitrogen (as N)	%	77			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	107			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	120			80-120	Pass	
Copper	%	113			80-120	Pass	
Lead	%	117			80-120	Pass	
Mercury	%	105			75-125	Pass	
Nickel	%	108			80-120	Pass	
Zinc	%	108			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M18-Jl29562	CP	%	88			70-130	Pass	
Acenaphthylene	M18-Jl29562	CP	%	104			70-130	Pass	
Anthracene	M18-Jl29562	CP	%	82			70-130	Pass	
Benz(a)anthracene	M18-Jl29562	CP	%	78			70-130	Pass	
Benzo(a)pyrene	M18-Jl29562	CP	%	89			70-130	Pass	
Benzo(b&j)fluoranthene	M18-Jl29562	CP	%	94			70-130	Pass	
Benzo(g.h.i)perylene	M18-Jl29562	CP	%	98			70-130	Pass	
Benzo(k)fluoranthene	M18-Jl29562	CP	%	77			70-130	Pass	
Chrysene	M18-Jl29562	CP	%	83			70-130	Pass	
Dibenz(a.h)anthracene	M18-Jl29562	CP	%	80			70-130	Pass	
Fluoranthene	M18-Jl29562	CP	%	88			70-130	Pass	
Fluorene	M18-Jl29562	CP	%	74			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl29562	CP	%	80			70-130	Pass	
Naphthalene	M18-Jl29562	CP	%	73			70-130	Pass	
Phenanthrene	M18-Jl29562	CP	%	92			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M18-Jl29562	CP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M18-Jl29564	CP	%	81			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M18-Jl29564	CP	%	82			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M18-Jl29566	CP	%	78			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Jl29566	CP	%	77			70-130	Pass	
Toluene	M18-Jl29566	CP	%	78			70-130	Pass	
Ethylbenzene	M18-Jl29566	CP	%	83			70-130	Pass	
m&p-Xylenes	M18-Jl29566	CP	%	80			70-130	Pass	
o-Xylene	M18-Jl29566	CP	%	85			70-130	Pass	
Xylenes - Total	M18-Jl29566	CP	%	81			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M18-Jl29566	CP	%	121			70-130	Pass	
TRH C6-C10	M18-Jl29566	CP	%	78			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M18-Jl29567	CP	%	115			75-125	Pass	
Cadmium	M18-Jl29567	CP	%	100			75-125	Pass	
Chromium	M18-Jl29567	CP	%	127			75-125	Fail	Q08
Copper	M18-Jl29567	CP	%	106			75-125	Pass	
Lead	M18-Jl29567	CP	%	114			75-125	Pass	
Mercury	M18-Jl29567	CP	%	100			70-130	Pass	
Nickel	M18-Jl29567	CP	%	100			75-125	Pass	
Zinc	M18-Jl29567	CP	%	94			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M18-Jl29571	CP	%	122			70-130	Pass	
4.4'-DDE	M18-Jl29571	CP	%	115			70-130	Pass	
4.4'-DDT	M18-Jl29571	CP	%	89			70-130	Pass	
a-BHC	M18-Jl29571	CP	%	96			70-130	Pass	
Aldrin	M18-Jl29571	CP	%	103			70-130	Pass	
b-BHC	M18-Jl29571	CP	%	96			70-130	Pass	
d-BHC	M18-Jl29571	CP	%	97			70-130	Pass	
Dieldrin	M18-Jl29571	CP	%	105			70-130	Pass	
Endosulfan I	M18-Jl29571	CP	%	102			70-130	Pass	
Endosulfan II	M18-Jl29571	CP	%	102			70-130	Pass	
Endosulfan sulphate	M18-Jl29571	CP	%	99			70-130	Pass	
Endrin	M18-Jl29571	CP	%	116			70-130	Pass	
Endrin aldehyde	M18-Jl29571	CP	%	90			70-130	Pass	
Endrin ketone	M18-Jl29571	CP	%	98			70-130	Pass	
g-BHC (Lindane)	M18-Jl29571	CP	%	95			70-130	Pass	
Heptachlor	M18-Jl29571	CP	%	101			70-130	Pass	
Heptachlor epoxide	M18-Jl29571	CP	%	98			70-130	Pass	
Hexachlorobenzene	M18-Jl29571	CP	%	98			70-130	Pass	
Methoxychlor	M18-Jl29571	CP	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Total Kjeldahl Nitrogen (as N)	M18-Jl29562	CP	mg/kg	1800	1900	6.0	30%	Pass	
% Moisture	M18-Jl29239	NCP	%	9.8	10	6.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl29563	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl29563	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M18-Jl29563	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl29563	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl29563	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M18-Jl29563	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M18-Jl29565	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M18-Jl29565	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M18-Jl29565	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M18-Jl29565	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M18-Jl29565	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M18-Jl29565	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M18-Jl29565	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M18-Jl29565	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M18-Jl29565	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Phosphorus	M18-Jl29566	CP	mg/kg	460	510	11	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Potassium	M18-Jl29566	CP	mg/kg	890	920	3.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl29566	CP	mg/kg	5.0	5.7	13	30%	Pass	
Cadmium	M18-Jl29566	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl29566	CP	mg/kg	13	16	17	30%	Pass	
Copper	M18-Jl29566	CP	mg/kg	7.1	7.3	3.0	30%	Pass	
Lead	M18-Jl29566	CP	mg/kg	23	24	4.0	30%	Pass	
Mercury	M18-Jl29566	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl29566	CP	mg/kg	11	12	5.0	30%	Pass	
Zinc	M18-Jl29566	CP	mg/kg	51	54	5.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl29567	CP	mg/kg	6.5	6.9	5.0	30%	Pass	
Cadmium	M18-Jl29567	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl29567	CP	mg/kg	14	15	11	30%	Pass	
Copper	M18-Jl29567	CP	mg/kg	< 5	5.2	7.0	30%	Pass	
Lead	M18-Jl29567	CP	mg/kg	23	25	10	30%	Pass	
Mercury	M18-Jl29567	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl29567	CP	mg/kg	7.3	7.9	7.0	30%	Pass	
Zinc	M18-Jl29567	CP	mg/kg	25	27	9.0	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M18-Jl29570	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M18-Jl29570	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M18-Jl29570	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M18-Jl29571	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl29573	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl29573	CP	mg/kg	56	51	9.0	30%	Pass	
TRH C29-C36	M18-Jl29573	CP	mg/kg	100	93	8.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl29573	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl29573	CP	mg/kg	130	120	8.0	30%	Pass	
TRH >C34-C40	M18-Jl29573	CP	mg/kg	< 100	< 100	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
M10	NATA accreditation does not cover the performance of this service in soil matrices
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Ian Bolch	Senior Analyst-Microbiology (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Michael Brancati	Senior Analyst-Inorganic (VIC)
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	John Scott
Report	609429-AID
Project Name	BLACK HILL
Project ID	54892
Received Date	Jul 26, 2018
Date Reported	Aug 02, 2018

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS4964 method for inhomogeneous samples is around 0.1 g/kg (0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis where required, this is considered to be at the nominal reporting limit of 0.01 % (w / w).The examination of large sample sizes(500 mL is recommended) may improve the likelihood of identifying ACM in the > 2mm fraction.The NEPM screening level of 0.001 % (w / w) asbestos in soil for FA(friable asbestos) and AF(asbestos fines) then applies where they are able to be quantified by gravimetric procedures.This quantitative screening is not generally applicable to FF(free fibres) and results of Trace Analysis are referred. *NOTE: NATA News March 2014, p.7, states in relation to AS4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". Accordingly, NATA Accreditation does not cover the performance of this service (indicated with an asterisk).* *This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended) and the Western Australia Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2009, including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil, June 2011.*

Project Name BLACK HILL
Project ID 54892
Date Sampled Jul 24, 2018
Report 609429-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
NFTP01_0.0-0.1	18-Jl29562	Jul 24, 2018	Approximate Sample 497g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP02_0.1-0.2	18-Jl29563	Jul 24, 2018	Approximate Sample 529g Sample consisted of: Dark brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP03_0.0-0.1	18-Jl29564	Jul 24, 2018	Approximate Sample 574g Sample consisted of: Grey coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP04_0.0-0.1	18-Jl29565	Jul 24, 2018	Approximate Sample 409g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP05_0.0-0.1	18-Jl29566	Jul 24, 2018	Approximate Sample 394g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP06_0.0-0.1	18-Jl29567	Jul 24, 2018	Approximate Sample 470g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP07_0.0-0.1	18-Jl29568	Jul 24, 2018	Approximate Sample 359g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP08_0.0-0.1	18-Jl29569	Jul 24, 2018	Approximate Sample 435g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP09_0.0-0.1	18-Jl29570	Jul 24, 2018	Approximate Sample 479g Sample consisted of: Dark brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP10_0.0-0.1	18-Jl29571	Jul 24, 2018	Approximate Sample 416g Sample consisted of: Dark brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
NFTP11_0.0-0.1	18-Jl29572	Jul 24, 2018	Approximate Sample 485g Sample consisted of: Dark brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP12_0.0-0.1	18-Jl29573	Jul 24, 2018	Approximate Sample 415g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP13_0.0-0.1	18-Jl29574	Jul 24, 2018	Approximate Sample 439g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP14_0.0-0.1	18-Jl29575	Jul 24, 2018	Approximate Sample 445g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
NFTP15_0.0-0.1	18-Jl29576	Jul 24, 2018	Approximate Sample 479g Sample consisted of: Dark brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jul 26, 2018	Indefinite

eurofins | mgt

ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609429
Phone: 02 8245 0300
Fax:

Received: Jul 26, 2018 9:21 AM
Due: Aug 2, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
External Laboratory													
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**								
1	NFTP01_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29562	X	X		X	X	X	X	X
2	NFTP02_0.1-0.2	Jul 24, 2018		Soil	M18-Jl29563	X	X		X	X	X	X	X
3	NFTP03_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29564	X	X		X	X	X	X	X
4	NFTP04_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29565	X	X		X	X	X	X	X
5	NFTP05_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29566	X	X		X	X	X	X	X
6	NFTP06_0.0-	Jul 24, 2018		Soil	M18-Jl29567	X	X		X	X	X	X	X

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ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
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Phone : +61 2 9900 8400
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Sydney
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Project Name: BLACK HILL
Project ID: 54892

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Fax:

Received: Jul 26, 2018 9:21 AM
Due: Aug 2, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - WA guidelines	E.coli	HOLD	Thermotolerant Coliforms	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.1												
7	NFTP07_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29568	X	X		X	X	X	X	X
8	NFTP08_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29569	X	X		X	X	X	X	X
9	NFTP09_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29570	X	X		X	X	X	X	X
10	NFTP10_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29571	X	X		X	X	X	X	X
11	NFTP11_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29572	X	X		X	X	X	X	X
12	NFTP12_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29573	X	X		X	X	X	X	X
13	NFTP13_0.0-	Jul 24, 2018		Soil	M18-Jl29574	X	X		X	X	X	X	X

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.1												
14	NFTP14_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29575	X	X		X	X	X	X	X
15	NFTP15_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29576	X	X		X	X	X	X	X
16	NFTP01_0.5-0.6	Jul 24, 2018		Soil	M18-Jl29577			X					
17	NFTP01_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29578			X					
18	NFTP01_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29579			X					
19	NFTP02_0.0-0.1	Jul 24, 2018		Soil	M18-Jl29580			X					
20	NFTP02_0.5-	Jul 24, 2018		Soil	M18-Jl29581			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.6												
21	NFTP02_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29582			X					
22	NFTP02_1.3-1.4	Jul 24, 2018		Soil	M18-Jl29583			X					
23	NFTP03_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29584			X					
24	NFTP03_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29585			X					
25	NFTP03_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29586			X					
26	NFTP03_1.4-1.5	Jul 24, 2018		Soil	M18-Jl29587			X					
27	NFTP04_0.1-	Jul 24, 2018		Soil	M18-Jl29588			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.15												
28	NFTP04_0.6-0.7	Jul 24, 2018		Soil	M18-Jl29589			X					
29	NFTP04_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29590			X					
30	NFTP05_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29591			X					
31	NFTP05_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29592			X					
32	NFTP05_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29593			X					
33	NFTP05_1.5-1.6	Jul 24, 2018		Soil	M18-Jl29594			X					
34	NFTP06_0.1-	Jul 24, 2018		Soil	M18-Jl29595			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	0.15												
35	NFTP06_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29596			X					
36	NFTP07_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29597			X					
37	NFTP07_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29598			X					
38	NFTP07_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29599			X					
39	NFTP08_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29600			X					
40	NFTP08_0.3-0.4	Jul 24, 2018		Soil	M18-Jl29601			X					
41	NFTP08_1.0-	Jul 24, 2018		Soil	M18-Jl29602			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	1.1												
42	NFTP08_1.9-2.6	Jul 24, 2018		Soil	M18-Jl29603			X					
43	NFTP09_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29604			X					
44	NFTP09_0.5-0.6	Jul 24, 2018		Soil	M18-Jl29605			X					
45	NFTP09_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29606			X					
46	NFTP10_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29607			X					
47	NFTP10_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29608			X					
48	NFTP10_0.9-	Jul 24, 2018		Soil	M18-Jl29609			X					

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Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
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Site # 1254 & 14271

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	1.0												
49	NFTP11_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29610			X					
50	NFTP11_1.0-1.1	Jul 24, 2018		Soil	M18-Jl29611			X					
51	NFTP11_1.3-1.4	Jul 24, 2018		Soil	M18-Jl29612			X					
52	NFTP12_0.1-0.2	Jul 24, 2018		Soil	M18-Jl29613			X					
53	NFTP12_0.4-0.5	Jul 24, 2018		Soil	M18-Jl29614			X					
54	NFTP12_0.9-1.0	Jul 24, 2018		Soil	M18-Jl29615			X					
55	NFTP12_1.2-	Jul 24, 2018		Soil	M18-Jl29616			X					

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Melbourne Laboratory - NATA Site # 1254 & 14271							X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X							
Brisbane Laboratory - NATA Site # 20794													
Perth Laboratory - NATA Site # 23736													
	1.3												
56	NFTP13_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29617			X					
57	NFTP14_0.1-0.15	Jul 24, 2018		Soil	M18-Jl29618			X					
58	NFTP15_0.1-0.2	Jul 24, 2018		Soil	M18-Jl29619			X					
59	NFTP04_1.4-1.5	Jul 24, 2018		Soil	M18-Jl29620			X					
60	NFTP06_0.5-0.6	Jul 24, 2018		Soil	M18-Jl29621			X					
61	NFTP11_0.3-0.4	Jul 24, 2018		Soil	M18-Jl32244			X					
Test Counts						15	15	46	15	15	15	15	15

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Sample received was less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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DAY 2

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 52892 | LABORATORY BATCH NO.:

PROJECT NAME: Black Hill | SAMPLERS: MC / DMW

DATE NEEDED BY: | QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) DSCOTT@jbsg.com.au; (3) MCLARK@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
*Analysis will be emailed through
* Bag - Asbestos bag.

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E. COLI / COLIFORM	B19 SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
PTP01 0.0-0.1	Soil			Bag + Jar + Ice							✓			
PTP01 0.4-0.5				↓							✓			
PTP01 0.9-1.0				↓							✓			
PTP01 1.4-1.5				↓		✓	✓	✓	✓	✓				
PTP01 1.9-2				Jar + Ice		✓								
PTP01 2.1-2.2				↓							✓			
PTP02 0.0-0.1				Bag + Jar + Ice							✓			
PTP02 0.4-0.5				↓		✓	✓	✓	✓	✓				
PTP02 0.9-1.0				↓							✓			
PTP02 1.5-1.6				Jar + Ice		✓								
PTP02 1.9-2.0				↓							✓			
PTP03 0.0-0.1				Bag + Jar + Ice		✓								
PTP03 0.4-0.5				↓							✓			
PTP03 0.9-1.0				↓		✓	✓	✓	✓	✓				
PTP03 1.6-1.7				Jar + Ice							✓			
PTP04 0.0-0.1				Bag + Jar + Ice							✓			
PTP04 0.4-0.5				↓		✓	✓	✓	✓	✓				
PTP04 0.9-1.0				↓							✓			
PTP04 1.6-1.7				Jar + Ice		✓								

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: [illegible] DATE: 25.7.18	CONSIGNMENT NOTE NO.	NAME: DOE DATE: 26/7/18 9AM.	COOLER SEAL: Yes / No / Intact / Broken
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP: ___ deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL: Yes / No / Intact / Broken
OF:	TRANSPORT CO	OF:	COOLER TEMP: ___ deg C

Container & Preservative Codes: P = Plastic; J = Sod Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

Will O'Hair
609672 27/7/18

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892	LABORATORY BATCH NO.:
PROJECT NAME: Block Hill	SAMPLERS: WC / SMW
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) scott@jbsg.com.au; (3) mooney@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (WETH)	OCP	E. COLI / COLIFORM	8M9 SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
PTP05 0.0-0.1	Soil	25.7		Bag + Jar + Ice		✓								
PTP05 0.4-0.5				↓		✓	✓	✓	✓	✓				
PTP05 0.9-1.0											✓			
PTP05 1.6-1.7				Jar + Ice		✓								
PTP08 0.0-0.1				Bag + Jar + Ice.							✓			
PTP08 0.4-0.5				↓		✓	✓	✓	✓	✓				
PTP08 1.1-1.2				Jar + Ice							✓			
PTP06 0.0-0.1				Bag + Jar + Ice							✓			
PTP06 0.4-0.5				↓		✓	✓	✓	✓	✓				
PTP06 0.9-1.0											✓			
PTP06 1.6-1.7				Jar + Ice		✓								
PTP07 0.0-0.1				Bag + Jar + Ice		✓								
PTP07 0.4-0.5				↓							✓			
PTP07 0.8-0.9						✓	✓	✓	✓	✓				
PTP07 1.4-1.5				Jar + Ice							✓			
PTP09 0.0-0.1				BAG + JAR + ICE							✓			
PTP09 0.4-0.5				↓		✓	✓	✓	✓	✓				
PTP09 0.9-1.0											✓			
PTP09 1.4-1.5				Jar + Ice		✓								

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: 25-7-18	CONSIGNMENT NOTE NO:	NAME:	COOLER SEAL — Yes — No — Intact — Broken
OF: JBS&G	TRANSPORT CO.	DATE:	
		OF:	COOLER TEMP. — deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL — Yes — No — Intact — Broken
OF:	TRANSPORT CO	OF:	COOLER TEMP. — deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody – Generic

Will O'Haire
609672 27/7/18

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54092 | LABORATORY BATCH NO.:

PROJECT NAME: Black Hill | SAMPLERS: MC / JMW

DATE NEEDED BY: | QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JScott@jbsg.com.au; (3) mcave@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E.COLI / CALIFORM	B1ST SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
PTP10 0.0-0.1	Soil			Bag + Jar + Ice										
PTP10 0.4-0.5														
PTP10 0.9-1.0														
PTP10 1.5-1.6														
PTP10 1.9-2.0				Jar + Ice										
PTP11 0.0-0.1				Bag + Jar + Ice										
PTP11 0.4-0.5				Jar + Ice										
PTP12 0.0-0.1				Bag + Jar + Ice										
PTP12 0.2-0.3				Jar + Ice										
PTP12 0.9-1.0														
PTP13 0.0-0.1				Bag + Jar + Ice										
PTP13 0.2-0.3				Jar + Ice										
PTP13 1.3-1.4														
PTP14 0.0-0.1				Bag + Jar + Ice										
PTP14 0.3-0.4														
PTP14 0.9-1.0				Jar + Ice										
PTP14 1.4-1.5														
PTP15 0.0-0.1				Bag + Jar + Ice										
PTP15 0.3-0.4														

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:
NAME: KC DATE: 25-7-18 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:

FOR RECEIVING LAB USE ONLY: COOLER SEAL Yes / No Intact / Broken COOLER TEMP deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

ENSO Forms013 – Chain of Custody - Generic

Will O'Haire
609672 27/7/18

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892	LABORATORY BATCH NO.:
PROJECT NAME: Black Hill	SAMPLERS: MC / SMN
DATE NEEDED BY:	QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688	
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JScott@jbsg.com.au; (3) DMcGuire@jbsg.com.au	

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E.COLI/CELIFORM	B19 SUITE	TRH C6-C10		HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: REMOVAL	NOTES:
PTP15 0.4-0.5	Soil	25.7		Jar + Ice		✓										
PTP15 0.9-1.0				⇩									✓			
QC01				Bag + Jar + Ice		✓		✓		✓	ENVIROLAB					
QC01A						FORWARD TO [redacted] WITH ATTACHED COC										
QC02						✓		✓		✓	ENVIROLAB					
QC02A				⇩		FORWARD TO [redacted] WITH ATTACHED COC										
QC03				Jar + Ice							ENVIROLAB		✓			
QC03A				⇩		FORWARD TO [redacted] WITH ATTACHED COC										
QC04				Bag + Jar + Ice		✓		✓		✓	ENVIROLAB					
QC04A				⇩		FORWARD TO [redacted] WITH ATTACHED COC										
TRIP blank											✓					
TRIP spike											✓					

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: 25-7-18	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes / No / Intact / Broken
OF: JBS&G	TRANSPORT CO.	DATE:	
		OF:	COOLER TEMP. ___ deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes / No / Intact / Broken
OF:	TRANSPORT CO	OF:	COOLER TEMP. ___ deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 - Chain of Custody - Generic

Will O'Haire
609672 27/7/18

DAY 3

1 of 3

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892
PROJECT NAME: Black Hill
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: DMW | MC
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) S.Scott@jbsg.com.au; (3) WOConnor@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:
* Analysis will be emailed through.
* Bag - Asbestos bag.
* Some jars have been incorrectly labelled for date. All samples were collected on the 26.7.

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	As, BESTOS (NEPM)	OCP	E. coli / Coliform	B19 SUITE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BTP16 0.0-0.1	Soil	26-7		Bag + Jar + Ice							✓			
BTP16 0.3-0.4				Jar + Ice		✓	✓	✓	✓	✓				
BTP16 0.4-0.5						✓								
BTP16 0.9-1.0				Bag +										
BTP17 0.0-0.1				Bag + Jar + Ice							✓			
BTP17 0.2-0.3											✓			
BTP17 1.2-1.3				Jar + Ice		✓	✓	✓	✓	✓				
BTP18 0.0-0.1				Bag + Jar		✓								
BTP18 0.2-0.3											✓			
BTP18 0.8-0.9				Jar + Ice		✓								
BTP18 1.4-1.5														
BTP19 0.0-0.1				Bag + Jar + Ice		✓					✓			
BTP19 0.2-0.3						✓	✓	✓	✓	✓				
BTP19 0.9-1.0				Jar + Ice							✓			
BTP19 1.4-1.5											✓			
BTP20 0.0-0.1				Bag + Ice + Jar		✓								
BTP20 0.2-0.3											✓			
BTP20 1.1-1.2	↓	↓		Jar + Ice		✓								
BTP20 1.8-1.9											✓			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY
NAME: DATE: 26.7.18	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL: Yes / No / Intact / Broken
OF: JBS&G	TRANSPORT CO.	DATE:	COOLER TEMP: deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL: Yes / No / Intact / Broken
OF:	TRANSPORT CO	OF:	COOLER TEMP: deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

Will O'Haire
609672 27/7/18

2 of 3

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892	LABORATORY BATCH NO.:
PROJECT NAME: Black Hill	SAMPLERS: SMW / MC
DATE NEEDED BY:	QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688	
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JSCOTT@jbsg.com.au; (3) MCONNER@jbsg.com.au	
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B1 SUITE	ASBESTOS (NEPM)	OCP	E.COLI/COLIFORM	B1G SUITE	R21 (EIL PAH)	ASBESTOS	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SED01 0-0-0.1	SOIL	26.7		Jar + Ice		✓		✓	✓	✓						
SED01 0.1-0.2	↑	↓		↓		✓										
SED02 0.0-0.1						✓		✓	✓	✓						
SED03 0.0-0.1						✓										
SED03 0.2-0.3	↓			↓		✓		✓	✓	✓						
ASG1	Prog	26.7		Bag.								✓				
QC05	Soil			Bag + Jar + Ice									✓			
QC05A				↓		FORWARD TO ENVIROLAB WITH ATTACHED COC										
QC06				Jar + Ice									✓			
QC06A				↓		FORWARD TO ENVIROLAB WITH ATTACHED COC										
QC07				Bag + Jar + Ice									✓			
QC07A						FORWARD TO ENVIROLAB WITH ATTACHED COC										
QC08						✓										
QC08A	↓			↓		FORWARD TO ENVIROLAB WITH ATTACHED COC										
SS01				JAR + Ice		✓				✓						
SS02										✓						
SS03										✓						
SS04										✓						
SS05	↓	↓		↓		✓				✓						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: 26.7.18 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:	COOLER SEAL – Yes ... No ... Intact ... Broken ... COOLER TEMP ... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes ... No ... Intact ... Broken ... COOLER TEMP ... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody – Generic

Will O'Haire
609672 27/7/18

3 of 3

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892
PROJECT NAME: BLACK HILL
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: S/MW/MC
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JSCOTT@jbsg.com.au; (3) MCOVER@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	B7 SUITE	ASBESTOS (NEPM)	OCP	E.COLI / COLIFORM	BTEX SUITE	R21 (EIL PAH)	TRH C6-C10	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
SS06	soil	26.7		JAR+ICE		✓										
SS07	"	"		"		✓										
SS08	"	"		"							✓					
SS09	"	"		"		✓					✓					
SS10	"	"		"		✓					✓					
SS11	"	"		"		✓					✓					
SS12	"	"		"							✓					
SS13	"	"		"		✓										
SS14	V			V		✓					✓					
FBG1	WATER	26.7		bottles + ice		✓										
TRIP BRK SPIKE												✓				
TRIP BLANK												✓				

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: MG DATE: 26-7-18 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

Will O'Haire

609672 27/7/18

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892	LABORATORY BATCH NO.:
PROJECT NAME: BLACK HILL	SAMPLERS: SMW / MC
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JSCOTT@jbsg.com.au; (3) MCOVER@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

FORWARD TO ENVIROLAB WITH SPLIT SAMPLES

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	COMBINATION 3	NITROGEN	PHOSPHATE			HOLD											TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC05A	SOIL	26/7		BAG + JAR + ICE							/													
QC06A	↓	↓		JAR + ICE							/													
QC07A	↓	↓		BAG + JAR + ICE							/													
QC08A	↓	↓		↓		/																		

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892
PROJECT NAME: BLACK HILL
DATE NEEDED BY:
LABORATORY BATCH NO.:
SAMPLERS: SMW / MC
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JSCOTT@jbsg.com.au; (3) MCOVER@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

FORWARD TO ENVIROLAB WITH SPLIT SAMPLES

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	COMBINATION 3	NITROGEN	PHOSPHATE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
QC05A	SOIL	26/7		BAG + JAR + ICE					✓			
QC06A	↓	↓		JAR + ICE					✓			
QC07A				BAG + JAR + ICE					✓			
QC08A				↓		✓						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

Enviro Sample Vic

From: John Scott <jscott@jbsg.com.au>
Sent: Monday, 30 July 2018 7:58 AM
To: Enviro Sample Vic
Subject: RE: PLEASE ADVISE: Eurofins | mgt Sample Receipt Advice - Report 609672 : Site BLACK HILL (54892)
Attachments: image001.png; image002.jpg

Hi Will,

Can you please assume that the unlabelled jar received is PTP03_0.4-0.5. I will follow up our field staff regarding the missing trip blanks/spikes.

Will O'Haie
609672
30/7/18

John Scott | Senior Environmental Consultant | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane | Canberra | Darwin | Wollongong
Level 3, 32 Turbot Street Brisbane QLD 4000
T: 07 3211 5350 | M: 0404 970 945| E: jscott@jbsg.com.au | W: www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

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immediately. Use, disclosure or reproduction of this email by anyone other than the intended recipient(s) is strictly prohibited. No representation is made that this email or any attachments
are free of viruses and the recipient is responsible for undertaking appropriate virus scanning. Any advice provided in or attached to this email is subject to limitations.

From: EnviroSampleVic@eurofins.com <EnviroSampleVic@eurofins.com>
Sent: Friday, 27 July 2018 6:28 PM
To: John Scott <jscott@jbsg.com.au>
Subject: PLEASE ADVISE: Eurofins | mgt Sample Receipt Advice - Report 609672 : Site BLACK HILL (54892)

PLEASE ADVISE: 2ND SET OF TRIP SPIKE AND TRIP BLANK WERE NOT RECEIVED.

PTP03_0.4-0.5 WAS NOT RECEIVED.

AN UNLABELLED JAR WAS RECEIVED EXTRA AND PLACED ON HOLD

Dear Valued Client,

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins | mgt Analytical Services Manager as soon as possible to make certain that they get changed.

William O'Haire

Sample Receipt

eurofins | mgt

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: John Scott
Project name: BLACK HILL
Project ID: 54892
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Jul 27, 2018 9:34 AM
Eurofins | mgt reference: **609672**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 13.8 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☑ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8415 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to John Scott - jscott@jbsg.com.au.

Note: A copy of these results will also be delivered to the general JBS & G Australia (NSW) P/L email address.

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **John Scott**

Report **609672-S**
Project name BLACK HILL
Project ID 54892
Received Date Jul 27, 2018

Client Sample ID			M01**PTP01_1.4-1.5**	**PTP01_1.9-2**	M01**PTP02_0.4-0.5**	**PTP02_1.5-1.6**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31854**	**M18-Jl31855**	**M18-Jl31856**	**M18-Jl31857**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	69	87	114
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			M01PTP01_1.4-1.5	PTP01_1.9-2	M01PTP02_0.4-0.5	PTP02_1.5-1.6
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31854**	**M18-Jl31855**	**M18-Jl31856**	**M18-Jl31857**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	88	66	77	58
p-Terphenyl-d14 (surr.)	1	%	103	83	87	74
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Toxaphene	1	mg/kg	< 1	-	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	107	-	99	-
Tetrachloro-m-xylene (surr.)	1	%	94	-	99	-
Nitrate & Nitrite (as N)	5	mg/kg	< 5	-	< 5	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	790	-	690	-
Total Nitrogen (as N)	10	mg/kg	790	-	690	-
Phosphorus	5	mg/kg	440	-	1100	-
% Moisture	1	%	23	28	24	17
Heavy Metals						
Arsenic	2	mg/kg	9.4	8.9	7.6	4.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	35	45	34	27
Copper	5	mg/kg	17	39	23	35

Client Sample ID			[M01]PTP01_1.4-1.5	PTP01_1.9-2	[M01]PTP02_0.4-0.5	PTP02_1.5-1.6
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31854**	**M18-Jl31855**	**M18-Jl31856**	**M18-Jl31857**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	5	mg/kg	25	23	23	24
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	43	220	43	140
Zinc	5	mg/kg	61	260	110	180
Pathogens						
E.coli	1	MPN/g	< 10	-	< 10	-
Thermotolerant Coliforms	1	MPN/g	[M10]< 10	-	[M10]< 10	-

Client Sample ID			PTP03_0.0-0.1	[M01]PTP03_0.9-1.0	[M01]PTP04_0.4-0.5	PTP04_1.6-1.7
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31858**	**M18-Jl31859**	**M18-Jl31860**	**M18-Jl31861**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	62	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	200	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	262	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	54	88	84	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	210	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	210	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			PTP03_0.0-0.1	[M01]PTP03_0.9-1.0	[M01]PTP04_0.4-0.5	PTP04_1.6-1.7
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31858**	**M18-Jl31859**	**M18-Jl31860**	**M18-Jl31861**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	64	70	70	59
p-Terphenyl-d14 (surr.)	1	%	77	88	83	77
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Toxaphene	1	mg/kg	-	< 1	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	95	118	-
Tetrachloro-m-xylene (surr.)	1	%	-	89	110	-
Nitrate & Nitrite (as N)	5	mg/kg	-	< 5	< 5	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	430	930	-
Total Nitrogen (as N)	10	mg/kg	-	430	930	-
Phosphorus	5	mg/kg	-	130	270	-
% Moisture	1	%	31	24	21	24

Client Sample ID			PTP03_0.0-0.1	[M01]PTP03_0.9-1.0	[M01]PTP04_0.4-0.5	PTP04_1.6-1.7
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31858**	**M18-Jl31859**	**M18-Jl31860**	**M18-Jl31861**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	5.2	6.8	11	5.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	18	22	36	28
Copper	5	mg/kg	21	16	13	36
Lead	5	mg/kg	22	13	24	26
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	27	13	15	100
Zinc	5	mg/kg	190	37	34	180
Alkali Metals						
Potassium	5	mg/kg	-	1300	1400	-
Pathogens						
E.coli	1	MPN/g	-	< 10	< 10	-
Thermotolerant Coliforms	1	MPN/g	-	[M10]< 10	[M10]< 10	-

Client Sample ID			PTP05_0.0-0.1	[M01]PTP05_0.4-0.5	PTP05_1.6-1.7	[M01]PTP08_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31862**	**M18-Jl31863**	**M18-Jl31864**	**M18-Jl31865**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	69	83	58	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			PTP05_0.0-0.1	[M01]PTP05_0.4-0.5	PTP05_1.6-1.7	[M01]PTP08_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31862**	**M18-Jl31863**	**M18-Jl31864**	**M18-Jl31865**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	54	81	62	73
p-Terphenyl-d14 (surr.)	1	%	64	100	80	94
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Toxaphene	1	mg/kg	-	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	92	-	108
Tetrachloro-m-xylene (surr.)	1	%	-	88	-	101

Client Sample ID			PTP05_0.0-0.1	[M01]PTP05_0.4-0.5	PTP05_1.6-1.7	[M01]PTP08_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31862**	**M18-Jl31863**	**M18-Jl31864**	**M18-Jl31865**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Nitrate & Nitrite (as N)	5	mg/kg	-	< 5	-	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	520	-	630
Total Nitrogen (as N)	10	mg/kg	-	520	-	630
Phosphorus	5	mg/kg	-	590	-	550
% Moisture	1	%	23	26	19	26
Heavy Metals						
Arsenic	2	mg/kg	16	7.5	8.3	7.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	30	26	32	19
Copper	5	mg/kg	17	17	29	17
Lead	5	mg/kg	20	19	21	16
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	20	14	30	10
Zinc	5	mg/kg	74	54	59	34
Alkali Metals						
Potassium	5	mg/kg	-	1400	-	1600
Pathogens						
E.coli	1	MPN/g	-	< 10	-	< 10
Thermotolerant Coliforms	1	MPN/g	-	[M10]< 10	-	[M10]< 10

Client Sample ID			[M01]PTP06_0.4-0.5	PTP06_1.6-1.7	PTP07_0.0-0.1	[M01]PTP07_0.8-0.9
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31866**	**M18-Jl31867**	**M18-Jl31868**	**M18-Jl31869**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	75	89	89	65
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			[M01]PTP06_0.4-0.5	PTP06_1.6-1.7	PTP07_0.0-0.1	[M01]PTP07_0.8-0.9
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31866**	**M18-Jl31867**	**M18-Jl31868**	**M18-Jl31869**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68	55	89	72
p-Terphenyl-d14 (surr.)	1	%	83	70	111	83
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Toxaphene	1	mg/kg	< 1	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05

Client Sample ID			[M01]PTP06_0.4-0.5	PTP06_1.6-1.7	PTP07_0.0-0.1	[M01]PTP07_0.8-0.9
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31866**	**M18-Jl31867**	**M18-Jl31868**	**M18-Jl31869**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	94	-	-	129
Tetrachloro-m-xylene (surr.)	1	%	88	-	-	104
Nitrate & Nitrite (as N)	5	mg/kg	< 5	-	-	31
Total Kjeldahl Nitrogen (as N)	10	mg/kg	1200	-	-	5800
Total Nitrogen (as N)	10	mg/kg	1200	-	-	5830
Phosphorus	5	mg/kg	5000	-	-	18000
% Moisture	1	%	26	19	23	54
Heavy Metals						
Arsenic	2	mg/kg	11	5.3	16	8.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	22	31	35	9.1
Copper	5	mg/kg	25	32	19	70
Lead	5	mg/kg	19	22	24	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	19	49	18	13
Zinc	5	mg/kg	220	100	86	650
Alkali Metals						
Potassium	5	mg/kg	1200	-	-	1000
Pathogens						
E.coli	1	MPN/g	< 10	-	-	20
Thermotolerant Coliforms	1	MPN/g	[M10]< 10	-	-	[M10]20

Client Sample ID			[M01]PTP09_0.4-0.5	PTP09_1.4-1.5	PTP10_0.4-0.5	[M01]PTP10_0.9-1.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31870**	**M18-Jl31871**	**M18-Jl31872**	**M18-Jl31873**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	54	83	91	82

Client Sample ID			[M01]PTP09_0.4-0.5	PTP09_1.4-1.5	PTP10_0.4-0.5	[M01]PTP10_0.9-1.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31870**	**M18-Jl31871**	**M18-Jl31872**	**M18-Jl31873**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	73	87	70	71
p-Terphenyl-d14 (surr.)	1	%	89	108	91	86
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05

Client Sample ID			[M01]PTP09_0.4-0.5	PTP09_1.4-1.5	PTP10_0.4-0.5	[M01]PTP10_0.9-1.0
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31870**	**M18-Jl31871**	**M18-Jl31872**	**M18-Jl31873**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Toxaphene	1	mg/kg	< 1	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	78	-	-	72
Tetrachloro-m-xylene (surr.)	1	%	126	-	-	102
Nitrate & Nitrite (as N)	5	mg/kg	< 5	-	-	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	1100	-	-	870
Total Nitrogen (as N)	10	mg/kg	1100	-	-	870
Phosphorus	5	mg/kg	240	-	-	780
% Moisture	1	%	26	21	25	24
Heavy Metals						
Arsenic	2	mg/kg	4.3	7.3	13	9.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	21	33	26	23
Copper	5	mg/kg	17	50	13	15
Lead	5	mg/kg	16	21	40	32
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	17	59	18	19
Zinc	5	mg/kg	38	120	36	42
Alkali Metals						
Potassium	5	mg/kg	1800	-	-	1700
Pathogens						
E.coli	1	MPN/g	86	-	-	< 10
Thermotolerant Coliforms	1	MPN/g	[M10]86	-	-	[M10]< 10

Client Sample ID			[M01]PTP11_0.0-0.1	PTP11_0.4-0.5	[M01]PTP12_0.0-0.1	PTP12_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31874**	**M18-Jl31875**	**M18-Jl31876**	**M18-Jl31877**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			[M01]PTP11_0.0-0.1	PTP11_0.4-0.5	[M01]PTP12_0.0-0.1	PTP12_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31874**	**M18-Jl31875**	**M18-Jl31876**	**M18-Jl31877**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	75	94	79	93
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	79	73	73	65
p-Terphenyl-d14 (surr.)	1	%	95	106	83	94
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	-

Client Sample ID			[M01]PTP11_0.0-0.1	PTP11_0.4-0.5	[M01]PTP12_0.0-0.1	PTP12_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31874**	**M18-Jl31875**	**M18-Jl31876**	**M18-Jl31877**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	-	< 0.05	-
Toxaphene	1	mg/kg	< 1	-	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	< 0.1	-
Dibutylchlorendate (surr.)	1	%	121	-	76	-
Tetrachloro-m-xylene (surr.)	1	%	81	-	77	-
Nitrate & Nitrite (as N)	5	mg/kg	35	-	28	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	8000	-	6600	-
Total Nitrogen (as N)	10	mg/kg	8035	-	6630	-
Phosphorus	5	mg/kg	22000	-	43000	-
% Moisture	1	%	47	20	45	20
Heavy Metals						
Arsenic	2	mg/kg	6.0	4.5	8.3	13
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.8	< 0.4
Chromium	5	mg/kg	13	20	18	24
Copper	5	mg/kg	80	27	190	26
Lead	5	mg/kg	23	16	39	16
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	30	78	39	41
Zinc	5	mg/kg	930	140	2300	86
Alkali Metals						
Potassium	5	mg/kg	1200	-	1700	-
Pathogens						
E.coli	1	MPN/g	< 10	-	< 10	-
Thermotolerant Coliforms	1	MPN/g	[M10]97	-	[M10]10	-

Client Sample ID			[M01]PTP13_0.0-0.1	[M01]PTP14_0.3-0.4	[M01]PTP15_0.0-0.1	PTP15_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31878**	**M18-Jl31879**	**M18-Jl31880**	**M18-Jl31881**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	75	< 50	57	< 50
TRH C29-C36	50	mg/kg	190	130	100	< 50
TRH C10-36 (Total)	50	mg/kg	265	130	157	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	85	84	87	91
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	220	140	130	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	220	140	130	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	72	64	70	73
p-Terphenyl-d14 (surr.)	1	%	83	65	75	136

Client Sample ID			[M01]PTP13_0.0-0.1	[M01]PTP14_0.3-0.4	[M01]PTP15_0.0-0.1	PTP15_0.4-0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31878**	**M18-Jl31879**	**M18-Jl31880**	**M18-Jl31881**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Toxaphene	1	mg/kg	< 1	< 1	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	133	107	141	-
Tetrachloro-m-xylene (surr.)	1	%	117	121	125	-
Nitrate & Nitrite (as N)	5	mg/kg	17	10.0	7.5	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	4400	4200	5600	-
Total Nitrogen (as N)	10	mg/kg	4420	4210	5610	-
Phosphorus	5	mg/kg	18000	16000	5300	-
% Moisture	1	%	33	27	27	23
Heavy Metals						
Arsenic	2	mg/kg	8.4	13	6.7	11
Cadmium	0.4	mg/kg	0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	26	32	24	34
Copper	5	mg/kg	120	53	17	24
Lead	5	mg/kg	28	27	23	19
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	61	36	25	26
Zinc	5	mg/kg	1200	490	170	48
Alkali Metals						
Potassium	5	mg/kg	3200	2000	1900	-
Pathogens						
E.coli	1	MPN/g	< 10	< 10	41	-
Thermotolerant Coliforms	1	MPN/g	[M10]220	[M10]< 10	[M10]1000	-

Client Sample ID			QC01	QC02	QC04	TRIP BLANK
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31882	M18-Jl31883	M18-Jl31884	M18-Jl31885
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	72	63	88	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	51	98	90	-
p-Terphenyl-d14 (surr.)	1	%	93	126	87	-

Client Sample ID			QC01	QC02	QC04	TRIP BLANK
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31882	M18-Jl31883	M18-Jl31884	M18-Jl31885
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Toxaphene	1	mg/kg	< 1	< 1	< 1	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	137	90	133	-
Tetrachloro-m-xylene (surr.)	1	%	110	136	115	-
Nitrate & Nitrite (as N)	5	mg/kg	< 5	< 5	< 5	-
Total Kjeldahl Nitrogen (as N)	10	mg/kg	950	4900	1800	-
Total Nitrogen (as N)	10	mg/kg	950	4900	1800	-
Phosphorus	5	mg/kg	640	27000	1300	-
% Moisture	1	%	25	42	25	-
Heavy Metals						
Arsenic	2	mg/kg	4.4	3.9	19	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	-
Chromium	5	mg/kg	11	18	44	-
Copper	5	mg/kg	11	78	21	-
Lead	5	mg/kg	24	20	30	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Nickel	5	mg/kg	12	41	27	-
Zinc	5	mg/kg	28	790	100	-
Alkali Metals						
Potassium	5	mg/kg	1700	2200	1900	-

Client Sample ID			TRIP SPIKE	[M01]PTP16_0.3-0.4	PTP16_0.4-0.5	[M01]PTP17_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31886**	**M18-Jl31887**	**M18-Jl31888**	**M18-Jl31889**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	-	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	64	94	65
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	93	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	70	87	63
p-Terphenyl-d14 (surr.)	1	%	-	83	89	76

Client Sample ID			TRIP SPIKE	[M01]PTP16_0.3-0.4	PTP16_0.4-0.5	[M01]PTP17_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31886**	**M18-Jl31887**	**M18-Jl31888**	**M18-Jl31889**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Toxaphene	1	mg/kg	-	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	111	-	97
Tetrachloro-m-xylene (surr.)	1	%	-	119	-	114
Nitrate & Nitrite (as N)	5	mg/kg	-	< 5	-	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	830	-	330
Total Nitrogen (as N)	10	mg/kg	-	830	-	330
Phosphorus	5	mg/kg	-	660	-	650
% Moisture	1	%	-	22	24	14
Heavy Metals						
Arsenic	2	mg/kg	-	12	9.8	24
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	47	45	68
Copper	5	mg/kg	-	13	18	11
Lead	5	mg/kg	-	32	24	25
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	47	25	14
Zinc	5	mg/kg	-	58	47	36
Alkali Metals						
Potassium	5	mg/kg	-	1400	-	850
Pathogens						
E.coli	1	MPN/g	-	< 10	-	< 10
Thermotolerant Coliforms	1	MPN/g	-	[M10]1000	-	[M10]< 10

Client Sample ID			PTP17_1.2-1.3	PTP18_0.2-0.3	PTP18_0.8-0.9	PTP19_0.0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31890	M18-Jl31891	M18-Jl31892	M18-Jl31893
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	120
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	120
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	69	65	67	62
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	150
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	150
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	63	62	111	67
p-Terphenyl-d14 (surr.)	1	%	99	104	104	98
% Moisture	1	%	14	18	23	27

Client Sample ID			PTP17_1.2-1.3	PTP18_0.2-0.3	PTP18_0.8-0.9	PTP19_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31890**	**M18-Jl31891**	**M18-Jl31892**	**M18-Jl31893**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	16	11	13	9.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	15	39	53	17
Copper	5	mg/kg	7.8	12	21	39
Lead	5	mg/kg	13	25	25	23
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	22	23	18
Zinc	5	mg/kg	27	95	46	400

Client Sample ID			[M01]PTP19_0.2-0.3	PTP20_0.0-0.1	PTP20_1.1-1.2	[M01]SED01_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31894**	**M18-Jl31895**	**M18-Jl31896**	**M18-Jl31897**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	72	71	69	63
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			[M01]PTP19_0.2-0.3	PTP20_0.0-0.1	PTP20_1.1-1.2	[M01]SED01_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31894**	**M18-Jl31895**	**M18-Jl31896**	**M18-Jl31897**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	80	78	87	54
p-Terphenyl-d14 (surr.)	1	%	99	91	116	66
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	-	-	< 0.05
Toxaphene	1	mg/kg	< 1	-	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	111	-	-	128
Tetrachloro-m-xylene (surr.)	1	%	110	-	-	119
Nitrate & Nitrite (as N)	5	mg/kg	< 5	-	-	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	760	-	-	1600
Total Nitrogen (as N)	10	mg/kg	760	-	-	1600
Phosphorus	5	mg/kg	1200	-	-	1200
% Moisture	1	%	24	27	19	37

Client Sample ID			[M01]PTP19_0.2-0.3	PTP20_0.0-0.1	PTP20_1.1-1.2	[M01]SED01_0.0-0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31894**	**M18-Jl31895**	**M18-Jl31896**	**M18-Jl31897**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	7.4	6.3	3.9	15
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	22	16	28	30
Copper	5	mg/kg	21	28	21	23
Lead	5	mg/kg	16	22	15	21
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	49	22	19	30
Zinc	5	mg/kg	82	240	39	70
Alkali Metals						
Potassium	5	mg/kg	1100	-	-	2000
Pathogens						
E.coli	1	MPN/g	< 10	-	-	< 10
Thermotolerant Coliforms	1	MPN/g	[M10]< 10	-	-	[M10]< 10

Client Sample ID			SED01_0.1-0.2	[M01]SED02_0.0-0.1	SED03_0.0-0.1	[M01]SED03_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31898**	**M18-Jl31899**	**M18-Jl31900**	**M18-Jl31901**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	70	69	65	76
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			SED01_0.1-0.2	[M01]SED02_0.0-0.1	SED03_0.0-0.1	[M01]SED03_0.2-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31898**	**M18-Jl31899**	**M18-Jl31900**	**M18-Jl31901**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	65	72	69	86
p-Terphenyl-d14 (surr.)	1	%	68	84	75	81
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	-	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.05	-	< 0.05
Toxaphene	1	mg/kg	-	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	134	-	120
Tetrachloro-m-xylene (surr.)	1	%	-	125	-	108

Client Sample ID			SED01_0.1-0.2	[M01]SED02_0.0-0.1	SED03_0.0-0.1	[M01]SED03_0.2-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31898	M18-Jl31899	M18-Jl31900	M18-Jl31901
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Nitrate & Nitrite (as N)	5	mg/kg	-	5.3	-	< 5
Total Kjeldahl Nitrogen (as N)	10	mg/kg	-	1400	-	410
Total Nitrogen (as N)	10	mg/kg	-	1400	-	410
Phosphorus	5	mg/kg	-	1500	-	52
% Moisture	1	%	23	28	39	23
Heavy Metals						
Arsenic	2	mg/kg	11	15	7.6	7.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	31	40	42	39
Copper	5	mg/kg	17	13	20	22
Lead	5	mg/kg	16	28	25	19
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	27	23	34	32
Zinc	5	mg/kg	58	75	70	54
Alkali Metals						
Potassium	5	mg/kg	-	1400	-	1500
Pathogens						
E.coli	1	MPN/g	-	< 10	-	< 10
Thermotolerant Coliforms	1	MPN/g	-	[M10]< 10	-	[M10]< 10

Client Sample ID			QC08	SS01	SS02	SS03
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31903	M18-Jl31904	M18-Jl31905	M18-Jl31906
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	60	-	-
TRH C29-C36	50	mg/kg	< 50	86	-	-
TRH C10-36 (Total)	50	mg/kg	< 50	146	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	68	71	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	120	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	120	-	-

Client Sample ID			QC08	SS01	SS02	SS03
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31903**	**M18-Jl31904**	**M18-Jl31905**	**M18-Jl31906**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	57	66	-	-
p-Terphenyl-d14 (surr.)	1	%	77	91	-	-
% Clay	1	%	-	28	16	11
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	-	35	24	29
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	-	5.6	5.8	5.8
Total Organic Carbon	0.1	%	-	7.5	7.4	5.9
% Moisture	1	%	27	19	20	21
Heavy Metals						
Arsenic	2	mg/kg	10	16	-	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	-
Chromium	5	mg/kg	17	36	-	-
Copper	5	mg/kg	28	14	-	-
Iron	20	mg/kg	-	85000	47000	13000
Lead	5	mg/kg	25	23	-	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	-
Nickel	5	mg/kg	24	15	-	-
Zinc	5	mg/kg	280	200	-	-
Heavy Metals						
Iron (%)	0.01	%	-	8.5	4.7	1.3
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	-	33	22	18

Client Sample ID			SS04	SS05	SS06	SS07
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31907	M18-Jl31908	M18-Jl31909	M18-Jl31910
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	51
TRH C29-C36	50	mg/kg	-	< 50	100	83
TRH C10-36 (Total)	50	mg/kg	-	< 50	100	134
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	72	77	70
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	110	110
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	110	110
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	63	67	75
p-Terphenyl-d14 (surr.)	1	%	-	58	62	70

Client Sample ID			SS04	SS05	SS06	SS07
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31907	M18-Jl31908	M18-Jl31909	M18-Jl31910
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
% Clay	1	%	25	16	-	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	100	67	-	-
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	4.5	5.4	-	-
Total Organic Carbon	0.1	%	4.9	8.6	-	-
% Moisture	1	%	16	15	11	32
Heavy Metals						
Arsenic	2	mg/kg	-	10	5.8	7.6
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	36	22	23
Copper	5	mg/kg	-	13	9.2	33
Iron	20	mg/kg	31000	43000	-	-
Lead	5	mg/kg	-	54	42	23
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	34	24	20
Zinc	5	mg/kg	-	200	69	730
Heavy Metals						
Iron (%)	0.01	%	3.1	4.3	-	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	11	13	-	-

Client Sample ID			SS08	SS09	SS10	SS11
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31911	M18-Jl31912	M18-Jl31913	M18-Jl31914
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	130	140
TRH C29-C36	50	mg/kg	-	< 50	98	90
TRH C10-36 (Total)	50	mg/kg	-	< 50	228	230
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	68	76	72
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	210	210
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	210	210

Client Sample ID			SS08	SS09	SS10	SS11
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31911	M18-Jl31912	M18-Jl31913	M18-Jl31914
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	75	67	71
p-Terphenyl-d14 (surr.)	1	%	-	68	61	81
% Clay	1	%	6.3	35	17	-
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	20	30	68	-
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	4.9	4.2	5.8	-
Total Organic Carbon	0.1	%	5.2	2.4	5.8	-
% Moisture	1	%	15	18	17	16
Heavy Metals						
Arsenic	2	mg/kg	-	14	11	8.4
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	13	15	9.4
Copper	5	mg/kg	-	< 5	8.3	< 5
Iron	20	mg/kg	11000	27000	21000	-
Lead	5	mg/kg	-	18	14	11
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	-	< 5	5.8	< 5
Zinc	5	mg/kg	-	130	110	33
Heavy Metals						
Iron (%)	0.01	%	1.1	2.7	2.1	-
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	11	14	17	-

Client Sample ID			SS12	SS13	SS14
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			M18-Jl31915	M18-Jl31916	M18-Jl31917
Date Sampled			Jul 26, 2018	Jul 26, 2018	Jul 26, 2018
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	-	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20
TRH C15-C28	50	mg/kg	-	130	71
TRH C29-C36	50	mg/kg	-	260	93
TRH C10-36 (Total)	50	mg/kg	-	390	164
BTEX					
Benzene	0.1	mg/kg	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	75	72
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50
TRH >C16-C34	100	mg/kg	-	330	150
TRH >C34-C40	100	mg/kg	-	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	330	150
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	72	59
p-Terphenyl-d14 (surr.)	1	%	-	74	71

Client Sample ID			SS12	SS13	SS14
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Jl31915**	**M18-Jl31916**	**M18-Jl31917**
Date Sampled			**Jul 26, 2018**	**Jul 26, 2018**	**Jul 26, 2018**
Test/Reference	LOR	Unit			
% Clay	1	%	2.5	-	30
Conductivity (1:5 aqueous extract at 25°C as rec.)	10	uS/cm	53	-	39
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	0.1	pH Units	5.5	-	4.6
Total Organic Carbon	0.1	%	5.9	-	9.4
% Moisture	1	%	16	12	19
Heavy Metals					
Arsenic	2	mg/kg	-	5.0	7.6
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4
Chromium	5	mg/kg	-	8.8	18
Copper	5	mg/kg	-	< 5	10
Iron	20	mg/kg	13000	-	18000
Lead	5	mg/kg	-	12	15
Mercury	0.1	mg/kg	-	< 0.1	< 0.1
Nickel	5	mg/kg	-	8.3	13
Zinc	5	mg/kg	-	56	72
Heavy Metals					
Iron (%)	0.01	%	1.3	-	1.8
Cation Exchange Capacity					
Cation Exchange Capacity	0.05	meq/100g	47	-	22

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jul 30, 2018	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Jul 30, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 30, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 03, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 30, 2018	14 Day
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Melbourne	Jul 30, 2018	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Total Recoverable Hydrocarbons	Melbourne	Jul 31, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Organochlorine Pesticides	Melbourne	Jul 30, 2018	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
E.coli	Melbourne	Jul 31, 2018	72 Hour
- Method: LTM-MIC-6621 E.Coli and Total Coliforms by the MPN			
Thermotolerant Coliforms	Melbourne	Jul 31, 2018	72 Hour
- Method: Inhouse: Thermotolerant Coliforms in Soil by MPN*			
NEPM Screen for Soil Classification			
% Clay	Brisbane	Jul 31, 2018	6 Day
- Method: LTM-GEN-7040			
Conductivity (1:5 aqueous extract at 25°C as rec.)	Melbourne	Jul 30, 2018	7 Day
- Method: LTM-INO-4030 Conductivity			
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	Melbourne	Jul 30, 2018	7 Day
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Aug 01, 2018	28 Day
- Method: APHA 5310B Total Organic Carbon			
Heavy Metals	Melbourne	Jul 30, 2018	180 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Cation Exchange Capacity	Melbourne	Jul 31, 2018	180 Days
- Method: LTM-MET-3060 - Cation Exchange Capacity (CEC) & Exchangeable Sodium Percentage (ESP)			
Total Nitrogen Set (as N)			
Nitrate & Nitrite (as N)	Melbourne	Jul 30, 2018	28 Day
- Method: APHA 4500-NO3/NO2 Nitrate-Nitrite Nitrogen by FIA			
Total Kjeldahl Nitrogen (as N)	Melbourne	Jul 30, 2018	28 Day
- Method: LTM-INO-4310 TKN in Waters & Soils by FIA			
Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P			
Phosphorus	Melbourne	Jul 30, 2018	180 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Melbourne	Jul 27, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			
Eurofins | mgt Suite B19			
Alkali Metals	Melbourne	Jul 30, 2018	180 Day
- Method: USEPA 6010 Alkali Metals			

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ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609672
Phone: 02 8245 0300
Fax:

Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
External Laboratory																		
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**													
1	PTP01_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31854		X		X		X		X		X		X	X
2	PTP01_1.9-2	Jul 26, 2018		Soil	M18-Jl31855										X		X	
3	PTP02_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31856		X		X		X		X		X		X	X
4	PTP02_1.5-1.6	Jul 26, 2018		Soil	M18-Jl31857										X		X	
5	PTP03_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31858										X		X	
6	PTP03_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31859		X		X		X		X	X	X		X	
7	PTP04_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31860		X		X		X		X	X	X		X	
8	PTP04_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31861										X		X	
9	PTP05_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31862										X		X	

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ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
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Phone : +61 8 9251 9600
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Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
10	PTP05_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31863		X		X		X		X	X	X		X	
11	PTP05_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31864										X		X	
12	PTP08_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31865		X		X		X		X	X	X		X	
13	PTP06_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31866		X		X		X		X	X	X		X	
14	PTP06_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31867										X		X	
15	PTP07_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31868										X		X	
16	PTP07_0.8-0.9	Jul 26, 2018		Soil	M18-Jl31869	X			X		X		X	X	X		X	
17	PTP09_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31870		X		X		X		X	X	X		X	
18	PTP09_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31871										X		X	
19	PTP10_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31872										X		X	
20	PTP10_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31873		X		X		X		X	X	X		X	
21	PTP11_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31874	X			X		X		X	X	X		X	

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ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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1/21 Smallwood Place
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Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
22	PTP11_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31875										X		X	
23	PTP12_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31876	X			X		X		X	X	X		X	
24	PTP12_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31877										X		X	
25	PTP13_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31878		X		X		X		X	X	X		X	
26	PTP14_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31879		X		X		X		X	X	X		X	
27	PTP15_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31880		X		X		X		X	X	X		X	
28	PTP15_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31881										X		X	
29	QC01	Jul 26, 2018		Soil	M18-Jl31882								X	X	X		X	
30	QC02	Jul 26, 2018		Soil	M18-Jl31883								X	X	X		X	
31	QC04	Jul 26, 2018		Soil	M18-Jl31884								X	X	X		X	
32	TRIP BLANK	Jul 26, 2018		Soil	M18-Jl31885							X						
33	TRIP SPIKE	Jul 26, 2018		Soil	M18-Jl31886							X						

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
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Sydney
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Project Name: BLACK HILL
Project ID: 54892

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Fax:

Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
34	PTP16_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31887		X		X		X		X	X	X		X	
35	PTP16_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31888										X		X	
36	PTP17_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31889		X		X		X		X	X	X		X	
37	PTP17_1.2-1.3	Jul 26, 2018		Soil	M18-Jl31890										X		X	
38	PTP18_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31891										X		X	
39	PTP18_0.8-0.9	Jul 26, 2018		Soil	M18-Jl31892										X		X	
40	PTP19_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31893										X		X	
41	PTP19_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31894		X		X		X		X	X	X		X	
42	PTP20_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31895										X		X	
43	PTP20_1.1-1.2	Jul 26, 2018		Soil	M18-Jl31896										X		X	
44	SED01_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31897				X		X		X	X	X		X	

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
45	SED01_0.1-0.2	Jul 26, 2018		Soil	M18-Jl31898										X		X	
46	SED02_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31899				X		X		X	X	X		X	
47	SED03_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31900										X		X	
48	SED03_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31901				X		X		X	X	X		X	
49	AS01	Jul 26, 2018		Building Materials	M18-Jl31902			X										
50	QC08	Jul 26, 2018		Soil	M18-Jl31903										X		X	
51	SS01	Jul 26, 2018		Soil	M18-Jl31904										X	X	X	
52	SS02	Jul 26, 2018		Soil	M18-Jl31905										X	X		
53	SS03	Jul 26, 2018		Soil	M18-Jl31906										X	X		

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
54	SS04	Jul 26, 2018		Soil	M18-Jl31907										X	X		
55	SS05	Jul 26, 2018		Soil	M18-Jl31908										X	X	X	
56	SS06	Jul 26, 2018		Soil	M18-Jl31909										X		X	
57	SS07	Jul 26, 2018		Soil	M18-Jl31910										X		X	
58	SS08	Jul 26, 2018		Soil	M18-Jl31911										X	X		
59	SS09	Jul 26, 2018		Soil	M18-Jl31912										X	X	X	
60	SS10	Jul 26, 2018		Soil	M18-Jl31913										X	X	X	
61	SS11	Jul 26, 2018		Soil	M18-Jl31914										X		X	
62	SS12	Jul 26, 2018		Soil	M18-Jl31915										X	X		
63	SS13	Jul 26, 2018		Soil	M18-Jl31916										X		X	
64	SS14	Jul 26, 2018		Soil	M18-Jl31917										X	X	X	
65	FB01	Jul 26, 2018		Water	M18-Jl31918												X	

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
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Melbourne
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Unit F3, Building F
16 Mars Road
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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
66	PTP01_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31919					X								
67	PTP01_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31920					X								
68	PTP01_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31921					X								
69	PTP01_2.1-2.2	Jul 26, 2018		Soil	M18-Jl31922					X								
70	PTP02_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31923					X								
71	PTP02_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31924					X								
72	PTP02_1.9-2.0	Jul 26, 2018		Soil	M18-Jl31925					X								
73	PTP03_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31927					X								
74	PTP04_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31928					X								
75	PTP04_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31929					X								
76	PTP08_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31930					X								
77	PTP08_1.1-1.2	Jul 26, 2018		Soil	M18-Jl31931					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
78	PTP06_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31932					X								
79	PTP06_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31933					X								
80	PTP07_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31934					X								
81	PTP07_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31935					X								
82	PTP09_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31936					X								
83	PTP09_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31937					X								
84	PTP10_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31938					X								
85	PTP10_1.5-1.6	Jul 26, 2018		Soil	M18-Jl31939					X								
86	PTP10_1.9-2.0	Jul 26, 2018		Soil	M18-Jl31940					X								
87	PTP12_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31941					X								
88	PTP13_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31942					X								
89	PTP13_1.3-1.4	Jul 26, 2018		Soil	M18-Jl31943					X								

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Melbourne
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NATA # 1261
Site # 1254 & 14271

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
90	PTP14_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31944					X								
91	PTP14_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31945					X								
92	PTP14_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31946					X								
93	PTP15_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31947					X								
94	PTP15_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31948					X								
95	QC03	Jul 26, 2018		Soil	M18-Jl31949					X								
96	PTP16_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31950					X								
97	PTP16_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31951					X								
98	PTP17_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31952					X								
99	PTP18_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31953					X								
100	PTP18_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31954					X								
101	PTP19_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31955					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
102	PTP19_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31956					X								
103	PTP20_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31957					X								
104	PTP20_1.8-1.9	Jul 26, 2018		Soil	M18-Jl31958					X								
105	QC05	Jul 26, 2018		Soil	M18-Jl31959					X								
106	QC06	Jul 26, 2018		Soil	M18-Jl31960					X								
107	QC07	Jul 26, 2018		Soil	M18-Jl31961					X								
108	PTP03_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31962					X								
109	PTP05_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31975					X								
110	QC05A	Jul 26, 2018		Soil	M18-Jl35071					X								
111	QC07A	Jul 26, 2018		Soil	M18-Jl35072					X								
112	QC08A	Jul 26, 2018		Soil	M18-Jl35073					X								
Test Counts						3	15	1	21	47	21	2	24	22	61	10	57	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
% Clay	%	< 1			1	Pass	
Conductivity (1:5 aqueous extract at 25°C as rec.)	uS/cm	< 10			10	Pass	
Nitrate & Nitrite (as N)	mg/kg	< 5			5	Pass	
Total Kjeldahl Nitrogen (as N)	mg/kg	< 10			10	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 20			20	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	123			70-130	Pass	
TRH C10-C14	%	90			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	88			70-130	Pass	
Toluene	%	84			70-130	Pass	
Ethylbenzene	%	89			70-130	Pass	
m&p-Xylenes	%	86			70-130	Pass	
Xylenes - Total	%	86			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	115			70-130	Pass	
TRH C6-C10	%	125			70-130	Pass	
TRH C6-C10	%	81			70-130	Pass	
TRH >C10-C16	%	101			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	76			70-130	Pass	
Acenaphthylene	%	94			70-130	Pass	
Anthracene	%	97			70-130	Pass	
Benz(a)anthracene	%	119			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene	%	84			70-130	Pass	
Benzo(b&j)fluoranthene	%	78			70-130	Pass	
Benzo(g.h.i)perylene	%	84			70-130	Pass	
Benzo(k)fluoranthene	%	94			70-130	Pass	
Chrysene	%	109			70-130	Pass	
Dibenz(a.h)anthracene	%	82			70-130	Pass	
Fluoranthene	%	111			70-130	Pass	
Fluorene	%	84			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	88			70-130	Pass	
Naphthalene	%	75			70-130	Pass	
Phenanthrene	%	78			70-130	Pass	
Pyrene	%	116			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	107			70-130	Pass	
4.4'-DDE	%	111			70-130	Pass	
4.4'-DDT	%	110			70-130	Pass	
a-BHC	%	95			70-130	Pass	
Aldrin	%	105			70-130	Pass	
b-BHC	%	96			70-130	Pass	
d-BHC	%	93			70-130	Pass	
Dieldrin	%	95			70-130	Pass	
Endosulfan I	%	111			70-130	Pass	
Endosulfan II	%	97			70-130	Pass	
Endosulfan sulphate	%	115			70-130	Pass	
Endrin	%	100			70-130	Pass	
Endrin aldehyde	%	108			70-130	Pass	
Endrin ketone	%	117			70-130	Pass	
g-BHC (Lindane)	%	93			70-130	Pass	
Heptachlor	%	98			70-130	Pass	
Heptachlor epoxide	%	113			70-130	Pass	
Hexachlorobenzene	%	98			70-130	Pass	
Methoxychlor	%	107			70-130	Pass	
LCS - % Recovery							
% Clay	%	86			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	91			70-130	Pass	
Total Organic Carbon	%	99			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	100			80-120	Pass	
Cadmium	%	98			80-120	Pass	
Chromium	%	110			80-120	Pass	
Copper	%	102			80-120	Pass	
Lead	%	103			80-120	Pass	
Mercury	%	120			75-125	Pass	
Nickel	%	102			80-120	Pass	
Zinc	%	101			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	B18-Jl30233	NCP	%	103			70-130	Pass	
4.4'-DDE	B18-Jl30233	NCP	%	114			70-130	Pass	
4.4'-DDT	B18-Jl30233	NCP	%	103			70-130	Pass	
a-BHC	B18-Jl30233	NCP	%	111			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	B18-Jl30233	NCP	%	117			70-130	Pass	
b-BHC	B18-Jl30233	NCP	%	105			70-130	Pass	
d-BHC	B18-Jl30233	NCP	%	102			70-130	Pass	
Dieldrin	B18-Jl30233	NCP	%	115			70-130	Pass	
Endosulfan I	B18-Jl30233	NCP	%	113			70-130	Pass	
Endosulfan II	B18-Jl30233	NCP	%	105			70-130	Pass	
Endosulfan sulphate	B18-Jl30233	NCP	%	105			70-130	Pass	
Endrin	B18-Jl30233	NCP	%	109			70-130	Pass	
Endrin aldehyde	B18-Jl30233	NCP	%	113			70-130	Pass	
Endrin ketone	B18-Jl30233	NCP	%	115			70-130	Pass	
g-BHC (Lindane)	B18-Jl30233	NCP	%	110			70-130	Pass	
Heptachlor	B18-Jl30233	NCP	%	117			70-130	Pass	
Heptachlor epoxide	B18-Jl30233	NCP	%	110			70-130	Pass	
Hexachlorobenzene	B18-Jl30233	NCP	%	110			70-130	Pass	
Methoxychlor	B18-Jl30233	NCP	%	93			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M18-Jl31857	CP	%	119			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Jl31857	CP	%	86			70-130	Pass	
Toluene	M18-Jl31857	CP	%	98			70-130	Pass	
Ethylbenzene	M18-Jl31857	CP	%	119			70-130	Pass	
m&p-Xylenes	M18-Jl31857	CP	%	121			70-130	Pass	
o-Xylene	M18-Jl31857	CP	%	124			70-130	Pass	
Xylenes - Total	M18-Jl31857	CP	%	122			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M18-Jl31857	CP	%	118			70-130	Pass	
TRH C6-C10	M18-Jl31857	CP	%	115			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M18-Jl31859	CP	%	88			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M18-Jl31859	CP	%	89			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M18-Jl31862	CP	%	99			70-130	Pass	
Acenaphthylene	M18-Jl31862	CP	%	76			70-130	Pass	
Anthracene	M18-Jl31862	CP	%	76			70-130	Pass	
Benz(a)anthracene	M18-Jl31862	CP	%	96			70-130	Pass	
Benzo(a)pyrene	M18-Jl31862	CP	%	100			70-130	Pass	
Benzo(b&j)fluoranthene	M18-Jl31862	CP	%	74			70-130	Pass	
Benzo(g.h.i)perylene	M18-Jl31862	CP	%	76			70-130	Pass	
Benzo(k)fluoranthene	M18-Jl31862	CP	%	83			70-130	Pass	
Chrysene	M18-Jl31862	CP	%	78			70-130	Pass	
Dibenz(a.h)anthracene	M18-Jl31862	CP	%	76			70-130	Pass	
Fluoranthene	M18-Jl31862	CP	%	89			70-130	Pass	
Fluorene	M18-Jl31862	CP	%	98			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl31862	CP	%	75			70-130	Pass	
Naphthalene	M18-Jl31862	CP	%	78			70-130	Pass	
Phenanthrene	M18-Jl31862	CP	%	94			70-130	Pass	
Pyrene	M18-Jl31862	CP	%	82			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M18-Jl31865	CP	%	97			75-125	Pass	
Cadmium	M18-Jl31865	CP	%	91			75-125	Pass	
Chromium	M18-Jl31865	CP	%	106			75-125	Pass	
Copper	M18-Jl31865	CP	%	109			75-125	Pass	
Lead	M18-Jl31865	CP	%	95			75-125	Pass	
Mercury	M18-Jl31865	CP	%	113			70-130	Pass	
Nickel	M18-Jl31865	CP	%	99			75-125	Pass	
Zinc	M18-Jl31865	CP	%	105			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M18-Jl31871	CP	%	88			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M18-Jl31871	CP	%	99			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M18-Jl31875	CP	%	88			75-125	Pass	
Cadmium	M18-Jl31875	CP	%	92			75-125	Pass	
Chromium	M18-Jl31875	CP	%	95			75-125	Pass	
Copper	M18-Jl31875	CP	%	93			75-125	Pass	
Lead	M18-Jl31875	CP	%	90			75-125	Pass	
Mercury	M18-Jl31875	CP	%	106			70-130	Pass	
Nickel	M18-Jl31875	CP	%	88			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M18-Jl31877	CP	%	79			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Jl31877	CP	%	74			70-130	Pass	
Toluene	M18-Jl31877	CP	%	80			70-130	Pass	
Ethylbenzene	M18-Jl31877	CP	%	108			70-130	Pass	
m&p-Xylenes	M18-Jl31877	CP	%	96			70-130	Pass	
o-Xylene	M18-Jl31877	CP	%	93			70-130	Pass	
Xylenes - Total	M18-Jl31877	CP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M18-Jl31877	CP	%	95			70-130	Pass	
TRH C6-C10	M18-Jl31877	CP	%	78			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M18-Jl31879	CP	%	115			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M18-Jl31879	CP	%	107			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M18-Jl31891	CP	%	84			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M18-Jl31891	CP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	M18-Jl31893	CP	%	74			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Jl31893	CP	%	82			70-130	Pass	
Toluene	M18-Jl31893	CP	%	85			70-130	Pass	
Ethylbenzene	M18-Jl31893	CP	%	93			70-130	Pass	
m&p-Xylenes	M18-Jl31893	CP	%	83			70-130	Pass	
o-Xylene	M18-Jl31893	CP	%	88			70-130	Pass	
Xylenes - Total	M18-Jl31893	CP	%	85			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M18-Jl31893	CP	%	77			70-130	Pass	
TRH C6-C10	M18-Jl31893	CP	%	76			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M18-Jl31908	CP	%	83			70-130	Pass	
Acenaphthylene	M18-Jl31908	CP	%	81			70-130	Pass	
Anthracene	M18-Jl31908	CP	%	78			70-130	Pass	
Benz(a)anthracene	M18-Jl31908	CP	%	86			70-130	Pass	
Benzo(a)pyrene	M18-Jl31908	CP	%	115			70-130	Pass	
Benzo(b&j)fluoranthene	M18-Jl31908	CP	%	93			70-130	Pass	
Benzo(g.h.i)perylene	M18-Jl31908	CP	%	100			70-130	Pass	
Benzo(k)fluoranthene	M18-Jl31908	CP	%	88			70-130	Pass	
Chrysene	M18-Jl31908	CP	%	82			70-130	Pass	
Dibenz(a.h)anthracene	M18-Jl31908	CP	%	78			70-130	Pass	
Fluoranthene	M18-Jl31908	CP	%	84			70-130	Pass	
Fluorene	M18-Jl31908	CP	%	80			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl31908	CP	%	77			70-130	Pass	
Naphthalene	M18-Jl31908	CP	%	81			70-130	Pass	
Phenanthrene	M18-Jl31908	CP	%	74			70-130	Pass	
Pyrene	M18-Jl31908	CP	%	86			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M18-Jl31908	CP	%	108			75-125	Pass	
Cadmium	M18-Jl31908	CP	%	95			75-125	Pass	
Chromium	M18-Jl31908	CP	%	132			75-125	Fail	Q08
Copper	M18-Jl31908	CP	%	107			75-125	Pass	
Lead	M18-Jl31908	CP	%	123			75-125	Pass	
Mercury	M18-Jl31908	CP	%	105			70-130	Pass	
Nickel	M18-Jl31908	CP	%	124			75-125	Pass	
Zinc	M18-Jl31908	CP	%	179			75-125	Fail	Q08
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M18-Jl31914	CP	%	82			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Jl31914	CP	%	87			70-130	Pass	
Toluene	M18-Jl31914	CP	%	86			70-130	Pass	
Ethylbenzene	M18-Jl31914	CP	%	90			70-130	Pass	
m&p-Xylenes	M18-Jl31914	CP	%	85			70-130	Pass	
o-Xylene	M18-Jl31914	CP	%	93			70-130	Pass	
Xylenes - Total	M18-Jl31914	CP	%	88			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	M18-Jl31914	CP	%	108			70-130	Pass	
TRH C6-C10	M18-Jl31914	CP	%	83			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
Phosphorus	M18-Jl31854	CP	mg/kg	440	470	6.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31854	CP	mg/kg	9.4	9.6	2.0	30%	Pass	
Cadmium	M18-Jl31854	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31854	CP	mg/kg	35	34	2.0	30%	Pass	
Copper	M18-Jl31854	CP	mg/kg	17	17	1.0	30%	Pass	
Iron	M18-Jl31854	CP	mg/kg	49000	48000	1.0	30%	Pass	
Lead	M18-Jl31854	CP	mg/kg	25	28	10	30%	Pass	
Mercury	M18-Jl31854	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31854	CP	mg/kg	43	39	10	30%	Pass	
Zinc	M18-Jl31854	CP	mg/kg	61	58	4.0	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Potassium	M18-Jl31854	CP	mg/kg	1900	1800	4.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Jl31857	CP	%	17	17	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31864	CP	mg/kg	8.3	21	89	30%	Fail	Q02
Cadmium	M18-Jl31864	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31864	CP	mg/kg	32	29	9.0	30%	Pass	
Copper	M18-Jl31864	CP	mg/kg	29	26	12	30%	Pass	
Lead	M18-Jl31864	CP	mg/kg	21	20	2.0	30%	Pass	
Mercury	M18-Jl31864	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31864	CP	mg/kg	30	25	17	30%	Pass	
Zinc	M18-Jl31864	CP	mg/kg	59	49	20	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31865	CP	mg/kg	7.7	5.6	32	30%	Fail	Q15
Cadmium	M18-Jl31865	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31865	CP	mg/kg	19	20	5.0	30%	Pass	
Copper	M18-Jl31865	CP	mg/kg	17	18	6.0	30%	Pass	
Lead	M18-Jl31865	CP	mg/kg	16	17	2.0	30%	Pass	
Mercury	M18-Jl31865	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31865	CP	mg/kg	10	11	5.0	30%	Pass	
Zinc	M18-Jl31865	CP	mg/kg	34	36	6.0	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M18-Jl31866	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endosulfan I	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M18-Jl31866	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M18-Jl31866	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Jl31867	CP	%	19	19	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl31868	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl31868	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M18-Jl31868	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl31868	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl31868	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M18-Jl31868	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31875	CP	mg/kg	4.5	4.1	10	30%	Pass	
Cadmium	M18-Jl31875	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31875	CP	mg/kg	20	20	<1	30%	Pass	
Copper	M18-Jl31875	CP	mg/kg	27	28	1.0	30%	Pass	
Lead	M18-Jl31875	CP	mg/kg	16	16	1.0	30%	Pass	
Mercury	M18-Jl31875	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31875	CP	mg/kg	78	78	1.0	30%	Pass	
Zinc	M18-Jl31875	CP	mg/kg	140	140	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M18-Jl31876	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M18-Jl31876	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M18-Jl31876	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M18-Jl31876	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M18-Jl31876	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M18-Jl31876	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M18-Jl31876	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M18-Jl31876	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M18-Jl31876	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Jl31877	CP	%	20	21	7.0	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl31878	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl31878	CP	mg/kg	75	97	26	30%	Pass	
TRH C29-C36	M18-Jl31878	CP	mg/kg	190	240	25	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl31878	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl31878	CP	mg/kg	220	280	26	30%	Pass	
TRH >C34-C40	M18-Jl31878	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Phosphorus	M18-Jl31884	CP	mg/kg	1300	1300	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31884	CP	mg/kg	19	18	6.0	30%	Pass	
Cadmium	M18-Jl31884	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31884	CP	mg/kg	44	45	3.0	30%	Pass	
Copper	M18-Jl31884	CP	mg/kg	21	21	1.0	30%	Pass	
Lead	M18-Jl31884	CP	mg/kg	30	37	19	30%	Pass	
Mercury	M18-Jl31884	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31884	CP	mg/kg	27	32	16	30%	Pass	
Zinc	M18-Jl31884	CP	mg/kg	100	85	17	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Potassium	M18-Jl31884	CP	mg/kg	1900	1800	2.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M18-Jl31888	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M18-Jl31888	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M18-Jl31888	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M18-Jl31888	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M18-Jl31888	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M18-Jl31888	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M18-Jl31888	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M18-Jl31888	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M18-Jl31888	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Jl31889	CP	%	14	15	9.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl31890	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl31890	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M18-Jl31890	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl31890	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl31890	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M18-Jl31890	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M18-Jl31892	CP	mg/kg	< 20	< 20	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M18-Jl31892	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M18-Jl31892	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M18-Jl31892	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M18-Jl31892	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M18-Jl31892	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M18-Jl31892	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M18-Jl31892	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M18-Jl31892	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31896	CP	mg/kg	3.9	3.7	3.0	30%	Pass	
Cadmium	M18-Jl31896	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31896	CP	mg/kg	28	30	8.0	30%	Pass	
Copper	M18-Jl31896	CP	mg/kg	21	21	2.0	30%	Pass	
Iron	M18-Jl31896	CP	mg/kg	26000	23000	12	30%	Pass	
Lead	M18-Jl31896	CP	mg/kg	15	15	3.0	30%	Pass	
Mercury	M18-Jl31896	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31896	CP	mg/kg	19	21	9.0	30%	Pass	
Zinc	M18-Jl31896	CP	mg/kg	39	44	12	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Jl31899	CP	%	28	28	2.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl31900	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl31900	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M18-Jl31900	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl31900	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl31900	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M18-Jl31900	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M18-Jl31903	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M18-Jl31903	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M18-Jl31903	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M18-Jl31903	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M18-Jl31903	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M18-Jl31903	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M18-Jl31903	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M18-Jl31903	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M18-Jl31903	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Clay	M18-Jl30699	NCP	%	23	20	12	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	M18-Jl31908	CP	%	8.6	6.5	28	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31908	CP	mg/kg	10	10.0	1.0	30%	Pass	
Cadmium	M18-Jl31908	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31908	CP	mg/kg	36	36	<1	30%	Pass	
Copper	M18-Jl31908	CP	mg/kg	13	13	<1	30%	Pass	
Iron	M18-Jl31908	CP	mg/kg	43000	43000	<1	30%	Pass	
Lead	M18-Jl31908	CP	mg/kg	54	54	1.0	30%	Pass	
Mercury	M18-Jl31908	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31908	CP	mg/kg	34	34	<1	30%	Pass	
Zinc	M18-Jl31908	CP	mg/kg	200	200	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron (%)	M18-Jl31908	CP	%	4.3	4.3	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Jl31910	CP	%	32	32	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C as rec.)	M18-Jl31911	CP	uS/cm	20	19	5.1	30%	Pass	
pH (units)(1:5 soil:CaCl2 extract at 25°C as rec.)	M18-Jl31911	CP	pH Units	4.9	4.9	pass	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M18-Jl31914	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M18-Jl31916	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M18-Jl31916	CP	mg/kg	130	110	19	30%	Pass	
TRH C29-C36	M18-Jl31916	CP	mg/kg	260	190	33	30%	Fail	Q15
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M18-Jl31916	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M18-Jl31916	CP	mg/kg	330	250	29	30%	Pass	
TRH >C34-C40	M18-Jl31916	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M18-Jl31917	CP	mg/kg	7.6	7.8	3.0	30%	Pass	
Cadmium	M18-Jl31917	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M18-Jl31917	CP	mg/kg	18	18	1.0	30%	Pass	
Copper	M18-Jl31917	CP	mg/kg	10	10	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron	M18-Jl31917	CP	mg/kg	18000	19000	2.0	30%	Pass	
Lead	M18-Jl31917	CP	mg/kg	15	15	<1	30%	Pass	
Mercury	M18-Jl31917	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M18-Jl31917	CP	mg/kg	13	13	1.0	30%	Pass	
Zinc	M18-Jl31917	CP	mg/kg	72	73	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Iron (%)	M18-Jl31917	CP	%	1.8	1.9	2.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
M01	Microbiological Testing performed outside the recommended holding time
M10	NATA accreditation does not cover the performance of this service in soil matrices
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Ian Bolch	Senior Analyst-Microbiology (VIC)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)
Michael Brancati	Senior Analyst-Inorganic (VIC)
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254 & 14271

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **John Scott**

Report **609672-W**
Project name BLACK HILL
Project ID 54892
Received Date Jul 27, 2018

Client Sample ID			**FB01**
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**M18-Jl31918**
Date Sampled			**Jul 26, 2018**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1
TRH C10-36 (Total)	0.1	mg/L	< 0.1
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002
o-Xylene	0.001	mg/L	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003
4-Bromofluorobenzene (surr.)	1	%	70
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.01	mg/L	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001

Client Sample ID			FB01
Sample Matrix			**Water**
Eurofins | mgt Sample No.			**M18-Jl31918**
Date Sampled			**Jul 26, 2018**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	81
p-Terphenyl-d14 (surr.)	1	%	121
Heavy Metals			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.001	mg/L	< 0.001
Zinc	0.005	mg/L	< 0.005

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Jul 31, 2018	7 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Jul 30, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Jul 30, 2018	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 03, 2018	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Jul 31, 2018	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Melbourne	Jul 30, 2018	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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Address: Level 1, 50 Margaret St
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NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609672
Phone: 02 8245 0300
Fax:

Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail	Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271				X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217	X	X	X									X	
Brisbane Laboratory - NATA Site # 20794											X		
Perth Laboratory - NATA Site # 23736													
External Laboratory													

No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID												
1	PTP01_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31854		X		X		X		X		X		X	X
2	PTP01_1.9-2	Jul 26, 2018		Soil	M18-Jl31855										X		X	
3	PTP02_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31856		X		X		X		X		X		X	X
4	PTP02_1.5-1.6	Jul 26, 2018		Soil	M18-Jl31857										X		X	
5	PTP03_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31858										X		X	
6	PTP03_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31859		X		X		X		X	X	X		X	
7	PTP04_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31860		X		X		X		X	X	X		X	
8	PTP04_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31861										X		X	
9	PTP05_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31862										X		X	

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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Murarrie QLD 4172
Phone : +61 7 3902 4600
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2/91 Leach Highway
Kewdale WA 6105
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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
10	PTP05_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31863		X		X		X		X	X	X		X	
11	PTP05_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31864										X		X	
12	PTP08_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31865		X		X		X		X	X	X		X	
13	PTP06_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31866		X		X		X		X	X	X		X	
14	PTP06_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31867										X		X	
15	PTP07_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31868										X		X	
16	PTP07_0.8-0.9	Jul 26, 2018		Soil	M18-Jl31869	X			X		X		X	X	X		X	
17	PTP09_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31870		X		X		X		X	X	X		X	
18	PTP09_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31871										X		X	
19	PTP10_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31872										X		X	
20	PTP10_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31873		X		X		X		X	X	X		X	
21	PTP11_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31874	X			X		X		X	X	X		X	

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ABN– 50 005 085 521
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web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
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Phone : +61 7 3902 4600
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2/91 Leach Highway
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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
22	PTP11_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31875										X		X	
23	PTP12_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31876	X			X		X		X	X	X		X	
24	PTP12_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31877										X		X	
25	PTP13_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31878		X		X		X		X	X	X		X	
26	PTP14_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31879		X		X		X		X	X	X		X	
27	PTP15_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31880		X		X		X		X	X	X		X	
28	PTP15_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31881										X		X	
29	QC01	Jul 26, 2018		Soil	M18-Jl31882								X	X	X		X	
30	QC02	Jul 26, 2018		Soil	M18-Jl31883								X	X	X		X	
31	QC04	Jul 26, 2018		Soil	M18-Jl31884								X	X	X		X	
32	TRIP BLANK	Jul 26, 2018		Soil	M18-Jl31885							X						
33	TRIP SPIKE	Jul 26, 2018		Soil	M18-Jl31886							X						

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
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Melbourne
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NATA # 1261
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Sydney
Unit F3, Building F
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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
34	PTP16_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31887		X		X		X		X	X	X		X	
35	PTP16_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31888										X		X	
36	PTP17_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31889		X		X		X		X	X	X		X	
37	PTP17_1.2-1.3	Jul 26, 2018		Soil	M18-Jl31890										X		X	
38	PTP18_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31891										X		X	
39	PTP18_0.8-0.9	Jul 26, 2018		Soil	M18-Jl31892										X		X	
40	PTP19_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31893										X		X	
41	PTP19_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31894		X		X		X		X	X	X		X	
42	PTP20_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31895										X		X	
43	PTP20_1.1-1.2	Jul 26, 2018		Soil	M18-Jl31896										X		X	
44	SED01_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31897				X		X		X	X	X		X	

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
45	SED01_0.1-0.2	Jul 26, 2018		Soil	M18-Jl31898										X		X	
46	SED02_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31899				X		X		X	X	X		X	
47	SED03_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31900										X		X	
48	SED03_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31901				X		X		X	X	X		X	
49	AS01	Jul 26, 2018		Building Materials	M18-Jl31902			X										
50	QC08	Jul 26, 2018		Soil	M18-Jl31903										X		X	
51	SS01	Jul 26, 2018		Soil	M18-Jl31904										X	X	X	
52	SS02	Jul 26, 2018		Soil	M18-Jl31905										X	X		
53	SS03	Jul 26, 2018		Soil	M18-Jl31906										X	X		

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
54	SS04	Jul 26, 2018		Soil	M18-Jl31907										X	X		
55	SS05	Jul 26, 2018		Soil	M18-Jl31908										X	X	X	
56	SS06	Jul 26, 2018		Soil	M18-Jl31909										X		X	
57	SS07	Jul 26, 2018		Soil	M18-Jl31910										X		X	
58	SS08	Jul 26, 2018		Soil	M18-Jl31911										X	X		
59	SS09	Jul 26, 2018		Soil	M18-Jl31912										X	X	X	
60	SS10	Jul 26, 2018		Soil	M18-Jl31913										X	X	X	
61	SS11	Jul 26, 2018		Soil	M18-Jl31914										X		X	
62	SS12	Jul 26, 2018		Soil	M18-Jl31915										X	X		
63	SS13	Jul 26, 2018		Soil	M18-Jl31916										X		X	
64	SS14	Jul 26, 2018		Soil	M18-Jl31917										X	X	X	
65	FB01	Jul 26, 2018		Water	M18-Jl31918												X	

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609672
Phone: 02 8245 0300
Fax:

Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
66	PTP01_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31919					X								
67	PTP01_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31920					X								
68	PTP01_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31921					X								
69	PTP01_2.1-2.2	Jul 26, 2018		Soil	M18-Jl31922					X								
70	PTP02_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31923					X								
71	PTP02_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31924					X								
72	PTP02_1.9-2.0	Jul 26, 2018		Soil	M18-Jl31925					X								
73	PTP03_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31927					X								
74	PTP04_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31928					X								
75	PTP04_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31929					X								
76	PTP08_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31930					X								
77	PTP08_1.1-1.2	Jul 26, 2018		Soil	M18-Jl31931					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
78	PTP06_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31932					X								
79	PTP06_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31933					X								
80	PTP07_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31934					X								
81	PTP07_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31935					X								
82	PTP09_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31936					X								
83	PTP09_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31937					X								
84	PTP10_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31938					X								
85	PTP10_1.5-1.6	Jul 26, 2018		Soil	M18-Jl31939					X								
86	PTP10_1.9-2.0	Jul 26, 2018		Soil	M18-Jl31940					X								
87	PTP12_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31941					X								
88	PTP13_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31942					X								
89	PTP13_1.3-1.4	Jul 26, 2018		Soil	M18-Jl31943					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
90	PTP14_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31944					X								
91	PTP14_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31945					X								
92	PTP14_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31946					X								
93	PTP15_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31947					X								
94	PTP15_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31948					X								
95	QC03	Jul 26, 2018		Soil	M18-Jl31949					X								
96	PTP16_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31950					X								
97	PTP16_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31951					X								
98	PTP17_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31952					X								
99	PTP18_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31953					X								
100	PTP18_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31954					X								
101	PTP19_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31955					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
102	PTP19_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31956					X								
103	PTP20_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31957					X								
104	PTP20_1.8-1.9	Jul 26, 2018		Soil	M18-Jl31958					X								
105	QC05	Jul 26, 2018		Soil	M18-Jl31959					X								
106	QC06	Jul 26, 2018		Soil	M18-Jl31960					X								
107	QC07	Jul 26, 2018		Soil	M18-Jl31961					X								
108	PTP03_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31962					X								
109	PTP05_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31975					X								
110	QC05A	Jul 26, 2018		Soil	M18-Jl35071					X								
111	QC07A	Jul 26, 2018		Soil	M18-Jl35072					X								
112	QC08A	Jul 26, 2018		Soil	M18-Jl35073					X								
Test Counts						3	15	1	21	47	21	2	24	22	61	10	57	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	92			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	%	76			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	92			70-130	Pass	
Ethylbenzene	%	90			70-130	Pass	
m&p-Xylenes	%	90			70-130	Pass	
Xylenes - Total	%	92			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	112			70-130	Pass	
TRH C6-C10	%	93			70-130	Pass	
TRH >C10-C16	%	72			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	71			70-130	Pass	
Acenaphthylene	%	75			70-130	Pass	
Anthracene	%	94			70-130	Pass	
Benz(a)anthracene	%	80			70-130	Pass	
Benzo(a)pyrene	%	108			70-130	Pass	
Benzo(b&j)fluoranthene	%	105			70-130	Pass	
Benzo(g.h.i)perylene	%	114			70-130	Pass	
Benzo(k)fluoranthene	%	126			70-130	Pass	
Chrysene	%	101			70-130	Pass	
Dibenz(a.h)anthracene	%	99			70-130	Pass	
Fluoranthene	%	98			70-130	Pass	
Fluorene	%	81			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	102			70-130	Pass	
Naphthalene	%	71			70-130	Pass	
Phenanthrene	%	89			70-130	Pass	
Pyrene	%	99			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	93			80-120	Pass	
Cadmium	%	94			80-120	Pass	
Chromium	%	93			80-120	Pass	
Copper	%	93			80-120	Pass	
Lead	%	92			80-120	Pass	
Mercury	%	97			75-125	Pass	
Nickel	%	93			80-120	Pass	
Zinc	%	94			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M18-Jl34674	NCP	%	116			70-130	Pass	
TRH C10-C14	M18-Jl32267	NCP	%	78			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Jl34674	NCP	%	112			70-130	Pass	
Toluene	M18-Jl34674	NCP	%	103			70-130	Pass	
Ethylbenzene	M18-Jl34674	NCP	%	109			70-130	Pass	
m&p-Xylenes	M18-Jl34674	NCP	%	111			70-130	Pass	
o-Xylene	M18-Jl34674	NCP	%	113			70-130	Pass	
Xylenes - Total	M18-Jl34674	NCP	%	111			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M18-Jl34674	NCP	%	116			70-130	Pass	
TRH C6-C10	M18-Jl34674	NCP	%	115			70-130	Pass	
TRH >C10-C16	M18-Jl32267	NCP	%	71			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M18-Jl28917	NCP	%	70			70-130	Pass	
Acenaphthylene	M18-Jl28917	NCP	%	78			70-130	Pass	
Anthracene	M18-Jl28917	NCP	%	73			70-130	Pass	
Benz(a)anthracene	M18-Jl28917	NCP	%	91			70-130	Pass	
Benzo(a)pyrene	M18-Jl28917	NCP	%	75			70-130	Pass	
Benzo(b&j)fluoranthene	M18-Jl28917	NCP	%	87			70-130	Pass	
Benzo(g.h.i)perylene	M18-Jl28917	NCP	%	88			70-130	Pass	
Benzo(k)fluoranthene	M18-Jl28917	NCP	%	86			70-130	Pass	
Chrysene	M18-Jl28917	NCP	%	99			70-130	Pass	
Dibenz(a.h)anthracene	M18-Jl28917	NCP	%	71			70-130	Pass	
Fluoranthene	M18-Jl28917	NCP	%	101			70-130	Pass	
Fluorene	M18-Jl28917	NCP	%	81			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl28917	NCP	%	78			70-130	Pass	
Naphthalene	M18-Jl28917	NCP	%	85			70-130	Pass	
Phenanthrene	M18-Jl28917	NCP	%	91			70-130	Pass	
Pyrene	M18-Jl28917	NCP	%	102			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	B18-Jl30240	NCP	%	89			75-125	Pass	
Cadmium	B18-Jl30240	NCP	%	93			75-125	Pass	
Chromium	B18-Jl30240	NCP	%	89			75-125	Pass	
Copper	B18-Jl30240	NCP	%	88			75-125	Pass	
Lead	B18-Jl30240	NCP	%	90			75-125	Pass	
Mercury	B18-Jl30240	NCP	%	95			70-130	Pass	
Nickel	B18-Jl30240	NCP	%	92			75-125	Pass	
Zinc	B18-Jl30240	NCP	%	89			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S18-Jl31105	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	M18-Jl32266	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	M18-Jl32266	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	M18-Jl32266	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S18-Jl31105	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S18-Jl31105	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S18-Jl31105	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S18-Jl31105	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S18-Jl31105	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S18-Jl31105	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S18-Jl31105	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S18-Jl31105	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	M18-Jl32266	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	M18-Jl32266	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	M18-Jl32266	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M18-Jl29885	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	B18-Jl30240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	B18-Jl30240	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	B18-Jl30240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	B18-Jl30240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	B18-Jl30240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	B18-Jl30240	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	B18-Jl30240	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	B18-Jl30240	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Celebrating 30 years Testing and Protecting Human Health

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	John Scott
Report	609672-AID
Project Name	BLACK HILL
Project ID	54892
Received Date	Jul 27, 2018
Date Reported	Aug 03, 2018

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS4964 method for inhomogeneous samples is around 0.1 g/kg (0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis where required, this is considered to be at the nominal reporting limit of 0.01 % (w / w).The examination of large sample sizes(500 mL is recommended) may improve the likelihood of identifying ACM in the > 2mm fraction.The NEPM screening level of 0.001 % (w / w) asbestos in soil for FA(friable asbestos) and AF(asbestos fines) then applies where they are able to be quantified by gravimetric procedures.This quantitative screening is not generally applicable to FF(free fibres) and results of Trace Analysis are referred. *NOTE: NATA News March 2014, p.7, states in relation to AS4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". Accordingly, NATA Accreditation does not cover the performance of this service (indicated with an asterisk).* *This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended) and the Western Australia Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2009, including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil, June 2011.*

Project Name BLACK HILL
Project ID 54892
Date Sampled Jul 26, 2018
Report 609672-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
PTP01_1.4-1.5	18-Jl31854	Jul 26, 2018	Approximate Sample 441g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP02_0.4-0.5	18-Jl31856	Jul 26, 2018	Approximate Sample 420g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP03_0.9-1.0	18-Jl31859	Jul 26, 2018	Approximate Sample 477g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP04_0.4-0.5	18-Jl31860	Jul 26, 2018	Approximate Sample 358g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP05_0.4-0.5	18-Jl31863	Jul 26, 2018	Approximate Sample 458g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP08_0.4-0.5	18-Jl31865	Jul 26, 2018	Approximate Sample 477g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP06_0.4-0.5	18-Jl31866	Jul 26, 2018	Approximate Sample 469g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP07_0.8-0.9	18-Jl31869	Jul 26, 2018	Approximate Sample 218g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
PTP09_0.4-0.5	18-Jl31870	Jul 26, 2018	Approximate Sample 420g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP10_0.9-1.0	18-Jl31873	Jul 26, 2018	Approximate Sample 454g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
PTP11_0.0-0.1	18-Jl31874	Jul 26, 2018	Approximate Sample 244g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
PTP12_0.0-0.1	18-Jl31876	Jul 26, 2018	Approximate Sample 200g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
PTP13_0.0-0.1	18-Jl31878	Jul 26, 2018	Approximate Sample 360g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP14_0.3-0.4	18-Jl31879	Jul 26, 2018	Approximate Sample 453g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP15_0.0-0.1	18-Jl31880	Jul 26, 2018	Approximate Sample 459g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP16_0.3-0.4	18-Jl31887	Jul 26, 2018	Approximate Sample 419g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP17_0.2-0.3	18-Jl31889	Jul 26, 2018	Approximate Sample 445g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
PTP19_0.2-0.3	18-Jl31894	Jul 26, 2018	Approximate Sample 489g Sample consisted of: Brown coarse grain soil	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.
AS01	18-Jl31902	Jul 26, 2018	Approximate Sample 335g / 128x113x12mm Sample consisted of: Grey compressed fibre cement material	Chrysotile asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Aug 03, 2018	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Aug 03, 2018	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Aug 03, 2018	Indefinite

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ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609672
Phone: 02 8245 0300
Fax:

Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
External Laboratory																		
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**													
1	PTP01_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31854		X		X		X		X		X		X	X
2	PTP01_1.9-2	Jul 26, 2018		Soil	M18-Jl31855										X		X	
3	PTP02_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31856		X		X		X		X		X		X	X
4	PTP02_1.5-1.6	Jul 26, 2018		Soil	M18-Jl31857										X		X	
5	PTP03_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31858										X		X	
6	PTP03_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31859		X		X		X		X	X	X		X	
7	PTP04_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31860		X		X		X		X	X	X		X	
8	PTP04_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31861										X		X	
9	PTP05_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31862										X		X	

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ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: BLACK HILL
Project ID: 54892

Order No.:
Report #: 609672
Phone: 02 8245 0300
Fax:

Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
10	PTP05_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31863		X		X		X		X	X	X		X	
11	PTP05_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31864										X		X	
12	PTP08_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31865		X		X		X		X	X	X		X	
13	PTP06_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31866		X		X		X		X	X	X		X	
14	PTP06_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31867										X		X	
15	PTP07_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31868										X		X	
16	PTP07_0.8-0.9	Jul 26, 2018		Soil	M18-Jl31869	X			X		X		X	X	X		X	
17	PTP09_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31870		X		X		X		X	X	X		X	
18	PTP09_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31871										X		X	
19	PTP10_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31872										X		X	
20	PTP10_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31873		X		X		X		X	X	X		X	
21	PTP11_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31874	X			X		X		X	X	X		X	

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ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
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1/21 Smallwood Place
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Phone : +61 7 3902 4600
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2/91 Leach Highway
Kewdale WA 6105
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Site # 23736

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NSW 2000

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Order No.:
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Received: Jul 27, 2018 9:34 AM
Due: Aug 3, 2018
Priority: 5 Day
Contact Name: John Scott

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Asbestos - WA guidelines	Asbestos Absence /Presence	E.coli	HOLD	Thermotolerant Coliforms	TRH C6-C10	Organochlorine Pesticides	Eurofins | mgt Suite B19	Moisture Set	NEPM Screen for Soil Classification	Eurofins | mgt Suite B7	Eurofins | mgt Suite B19A: Total N (TKN, NOx), Total P
Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
22	PTP11_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31875										X		X	
23	PTP12_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31876	X			X		X		X	X	X		X	
24	PTP12_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31877										X		X	
25	PTP13_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31878		X		X		X		X	X	X		X	
26	PTP14_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31879		X		X		X		X	X	X		X	
27	PTP15_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31880		X		X		X		X	X	X		X	
28	PTP15_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31881										X		X	
29	QC01	Jul 26, 2018		Soil	M18-Jl31882								X	X	X		X	
30	QC02	Jul 26, 2018		Soil	M18-Jl31883								X	X	X		X	
31	QC04	Jul 26, 2018		Soil	M18-Jl31884								X	X	X		X	
32	TRIP BLANK	Jul 26, 2018		Soil	M18-Jl31885							X						
33	TRIP SPIKE	Jul 26, 2018		Soil	M18-Jl31886							X						

ABN – 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
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Sydney
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Project ID: 54892

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Fax:

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
34	PTP16_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31887		X		X		X		X	X	X		X	
35	PTP16_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31888										X		X	
36	PTP17_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31889		X		X		X		X	X	X		X	
37	PTP17_1.2-1.3	Jul 26, 2018		Soil	M18-Jl31890										X		X	
38	PTP18_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31891										X		X	
39	PTP18_0.8-0.9	Jul 26, 2018		Soil	M18-Jl31892										X		X	
40	PTP19_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31893										X		X	
41	PTP19_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31894		X		X		X		X	X	X		X	
42	PTP20_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31895										X		X	
43	PTP20_1.1-1.2	Jul 26, 2018		Soil	M18-Jl31896										X		X	
44	SED01_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31897				X		X		X	X	X		X	

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
45	SED01_0.1-0.2	Jul 26, 2018		Soil	M18-Jl31898										X		X	
46	SED02_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31899				X		X		X	X	X		X	
47	SED03_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31900										X		X	
48	SED03_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31901				X		X		X	X	X		X	
49	AS01	Jul 26, 2018		Building Materials	M18-Jl31902			X										
50	QC08	Jul 26, 2018		Soil	M18-Jl31903										X		X	
51	SS01	Jul 26, 2018		Soil	M18-Jl31904										X	X	X	
52	SS02	Jul 26, 2018		Soil	M18-Jl31905										X	X		
53	SS03	Jul 26, 2018		Soil	M18-Jl31906										X	X		

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
54	SS04	Jul 26, 2018		Soil	M18-Jl31907										X	X		
55	SS05	Jul 26, 2018		Soil	M18-Jl31908										X	X	X	
56	SS06	Jul 26, 2018		Soil	M18-Jl31909										X		X	
57	SS07	Jul 26, 2018		Soil	M18-Jl31910										X		X	
58	SS08	Jul 26, 2018		Soil	M18-Jl31911										X	X		
59	SS09	Jul 26, 2018		Soil	M18-Jl31912										X	X	X	
60	SS10	Jul 26, 2018		Soil	M18-Jl31913										X	X	X	
61	SS11	Jul 26, 2018		Soil	M18-Jl31914										X		X	
62	SS12	Jul 26, 2018		Soil	M18-Jl31915										X	X		
63	SS13	Jul 26, 2018		Soil	M18-Jl31916										X		X	
64	SS14	Jul 26, 2018		Soil	M18-Jl31917										X	X	X	
65	FB01	Jul 26, 2018		Water	M18-Jl31918												X	

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
66	PTP01_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31919					X								
67	PTP01_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31920					X								
68	PTP01_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31921					X								
69	PTP01_2.1-2.2	Jul 26, 2018		Soil	M18-Jl31922					X								
70	PTP02_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31923					X								
71	PTP02_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31924					X								
72	PTP02_1.9-2.0	Jul 26, 2018		Soil	M18-Jl31925					X								
73	PTP03_1.6-1.7	Jul 26, 2018		Soil	M18-Jl31927					X								
74	PTP04_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31928					X								
75	PTP04_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31929					X								
76	PTP08_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31930					X								
77	PTP08_1.1-1.2	Jul 26, 2018		Soil	M18-Jl31931					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
78	PTP06_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31932					X								
79	PTP06_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31933					X								
80	PTP07_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31934					X								
81	PTP07_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31935					X								
82	PTP09_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31936					X								
83	PTP09_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31937					X								
84	PTP10_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31938					X								
85	PTP10_1.5-1.6	Jul 26, 2018		Soil	M18-Jl31939					X								
86	PTP10_1.9-2.0	Jul 26, 2018		Soil	M18-Jl31940					X								
87	PTP12_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31941					X								
88	PTP13_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31942					X								
89	PTP13_1.3-1.4	Jul 26, 2018		Soil	M18-Jl31943					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
90	PTP14_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31944					X								
91	PTP14_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31945					X								
92	PTP14_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31946					X								
93	PTP15_0.3-0.4	Jul 26, 2018		Soil	M18-Jl31947					X								
94	PTP15_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31948					X								
95	QC03	Jul 26, 2018		Soil	M18-Jl31949					X								
96	PTP16_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31950					X								
97	PTP16_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31951					X								
98	PTP17_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31952					X								
99	PTP18_0.0-0.1	Jul 26, 2018		Soil	M18-Jl31953					X								
100	PTP18_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31954					X								
101	PTP19_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31955					X								

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Melbourne Laboratory - NATA Site # 1254 & 14271									X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217						X	X	X									X	
Brisbane Laboratory - NATA Site # 20794																X		
Perth Laboratory - NATA Site # 23736																		
102	PTP19_1.4-1.5	Jul 26, 2018		Soil	M18-Jl31956					X								
103	PTP20_0.2-0.3	Jul 26, 2018		Soil	M18-Jl31957					X								
104	PTP20_1.8-1.9	Jul 26, 2018		Soil	M18-Jl31958					X								
105	QC05	Jul 26, 2018		Soil	M18-Jl31959					X								
106	QC06	Jul 26, 2018		Soil	M18-Jl31960					X								
107	QC07	Jul 26, 2018		Soil	M18-Jl31961					X								
108	PTP03_0.4-0.5	Jul 26, 2018		Soil	M18-Jl31962					X								
109	PTP05_0.9-1.0	Jul 26, 2018		Soil	M18-Jl31975					X								
110	QC05A	Jul 26, 2018		Soil	M18-Jl35071					X								
111	QC07A	Jul 26, 2018		Soil	M18-Jl35072					X								
112	QC08A	Jul 26, 2018		Soil	M18-Jl35073					X								
Test Counts						3	15	1	21	47	21	2	24	22	61	10	57	2

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Enviro Sample Vic

From: Nibha Vaidya
Sent: Tuesday, 7 August 2018 4:20 PM
To: Enviro Sample Vic
Cc: Asim Khan
Subject: 1 DAY TAT - FW: Eurofins | mgt Test Results - Report 609429 : Site BLACK HILL (54892)
Attachments: image001.png; image003.jpg

Importance: High

Hi Tony – Additional on 1 day TAT please, suite B7.

Split sample NFTP01 0.5-0.6 (JI29577) to form a duplicate labelled QC9, schedule both NFTP01 0.5-0.6 and QC9 for the analysis.

Hold

Kind Regards,

Nibha Vaidya
Phone : +61 2 9900 8415
Mobile : +61 499 900 805
Email : NibhaVaidya@eurofins.com

From: John Scott [mailto:jscott@jbsg.com.au]
Sent: Tuesday, 7 August 2018 3:49 PM
To: Nibha Vaidya
Subject: RE: Eurofins | mgt Test Results - Report 609429 : Site BLACK HILL (54892)
Importance: High

EXTERNAL EMAIL*

Hi Nibha,

Would you be able to put some urgent analysis on for me for this report (number 609429 Black Hill).

We didn't take a duplicate sample on the first day of field work, so I was wondering if you could split one of the samples we have sitting in the lab and analyse both on **24 hr turnaround**?

Can you please split sample NFTP01 0.5-0.6, with the duplicate sample to be call QC9. The analysis for both samples will be for a B2 Suit and B7 Suite.

If there are any issues with the timing or sample preparation, can you please let me know.

Jaipa Rahi
7/8/18 3:49P
611092

John Scott | Senior Environmental Consultant | JBS&G
Sydney | Melbourne | Adelaide | Perth | **Brisbane** | Canberra | Darwin | Wollongong
Level 3, 32 Turbot Street Brisbane QLD 4000
T: 07 3211 5350 | M: 0404 970 945 | E: jscott@jbsg.com.au | W: www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Auditing and Compliance | Assessments and Approvals | Occupational Hygiene and Monitoring

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are free of viruses and the recipient is responsible for undertaking appropriate virus scanning. Any advice provided in or attached to this email is subject to limitations.

From: NibhaVaidya@eurofins.com <NibhaVaidya@eurofins.com>
Sent: Thursday, 2 August 2018 6:34 PM
To: John Scott <jscott@jbsg.com.au>
Cc: Mikayla Cover <mcover@jbsg.com.au>
Subject: Eurofins | mgt Test Results - Report 609429 : Site BLACK HILL (54892)

Dear John,

Please find attached results for your project in the subject header.

Kind Regards,

Nibha Vaidya
Analytical Services Manager

Eurofins | mgt
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA
Phone: +61 2 9900 8415
Mobile: +61 499 900 805
Email: NibhaVaidya@eurofins.com
Website: environment.eurofins.com.au
EnviroNote 1076 - PFAS Biota
EnviroNote 1077 - Soil Vapour Sampling – NATA Accreditation

Are you on TOP of PFASs? Find out more by reading Eurofins | mgt's Environote by clicking here

EnviroNote 1075 – for Eurofins | mgt Christmas Shutdown Dates, click here

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Jaipur Path
7/8/18 3:44 pm
611092

eurofins | mgt

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: John Scott
Project name: BLACK HILL
Project ID: 54892
COC number: Not provided
Turn around time: 1 Day
Date/Time received: Aug 7, 2018 3:49 PM
Eurofins | mgt reference: **611092**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8415 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to John Scott - jscott@jbsg.com.au.

Note: A copy of these results will also be delivered to the general JBS & G Australia (NSW) P/L email address.

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **John Scott**

Report **611092-S**
Project name BLACK HILL
Project ID 54892
Received Date Aug 07, 2018

Client Sample ID			**NFTP01_0.5-0.6**	**QC9**
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Au07977**	**M18-Au07978**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	78	62
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5

Client Sample ID			NFTP01_0.5-0.6	QC9
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**M18-Au07977**	**M18-Au07978**
Date Sampled			**Jul 24, 2018**	**Jul 24, 2018**
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	112	105
p-Terphenyl-d14 (surr.)	1	%	112	108
Heavy Metals				
Arsenic	2	mg/kg	10.0	7.5
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	35	30
Copper	5	mg/kg	9.0	7.2
Lead	5	mg/kg	33	36
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	15	14
Zinc	5	mg/kg	34	29
% Moisture	1	%	23	23

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B7			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 07, 2018	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Aug 07, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 07, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 07, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 07, 2018	14 Day
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Melbourne	Aug 07, 2018	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Melbourne	Aug 07, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**	
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	611092
		Phone:	02 8245 0300
		Fax:	
Project Name:	BLACK HILL		
Project ID:	54892		

Received:	Aug 7, 2018 3:49 PM	
Due:	Aug 8, 2018	
Priority:	1 Day	
Contact Name:	John Scott	

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Moisture Set	Eurofins | mgt Suite B7
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	NFTP01_0.5-0.6	Jul 24, 2018		Soil	M18-Au07977	X	X
2	QC9	Jul 24, 2018		Soil	M18-Au07978	X	X
Test Counts						2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	111			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	%	120			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	97			70-130	Pass	
Toluene	%	87			70-130	Pass	
Ethylbenzene	%	99			70-130	Pass	
m&p-Xylenes	%	99			70-130	Pass	
Xylenes - Total	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	86			70-130	Pass	
TRH C6-C10	%	108			70-130	Pass	
TRH >C10-C16	%	112			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	85			70-130	Pass	
Acenaphthylene	%	85			70-130	Pass	
Anthracene	%	88			70-130	Pass	
Benz(a)anthracene	%	88			70-130	Pass	
Benzo(a)pyrene	%	79			70-130	Pass	
Benzo(b&j)fluoranthene	%	74			70-130	Pass	
Benzo(g.h.i)perylene	%	105			70-130	Pass	
Benzo(k)fluoranthene	%	76			70-130	Pass	
Chrysene	%	88			70-130	Pass	
Dibenz(a.h)anthracene	%	105			70-130	Pass	
Fluoranthene	%	84			70-130	Pass	
Fluorene	%	86			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	102			70-130	Pass	
Naphthalene	%	82			70-130	Pass	
Phenanthrene	%	84			70-130	Pass	
Pyrene	%	84			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	109			80-120	Pass	
Cadmium	%	94			80-120	Pass	
Chromium	%	119			80-120	Pass	
Copper	%	110			80-120	Pass	
Lead	%	115			80-120	Pass	
Mercury	%	105			75-125	Pass	
Nickel	%	113			80-120	Pass	
Zinc	%	114			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	Z18-Au02096	NCP	%	93			70-130	Pass	
TRH C10-C14	M18-Au03392	NCP	%	70			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	Z18-Au02096	NCP	%	85			70-130	Pass	
Toluene	Z18-Au02096	NCP	%	74			70-130	Pass	
Ethylbenzene	Z18-Au02096	NCP	%	86			70-130	Pass	
m&p-Xylenes	Z18-Au02096	NCP	%	88			70-130	Pass	
o-Xylene	Z18-Au02096	NCP	%	92			70-130	Pass	
Xylenes - Total	Z18-Au02096	NCP	%	89			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	Z18-Au02096	NCP	%	90			70-130	Pass	
TRH C6-C10	Z18-Au02096	NCP	%	90			70-130	Pass	
TRH >C10-C16	M18-Au03392	NCP	%	76			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M18-Au04297	NCP	%	72			70-130	Pass	
Acenaphthylene	M18-Au04297	NCP	%	100			70-130	Pass	
Anthracene	M18-Au04297	NCP	%	104			70-130	Pass	
Benz(a)anthracene	M18-Au04297	NCP	%	119			70-130	Pass	
Benzo(a)pyrene	M18-Au04297	NCP	%	105			70-130	Pass	
Benzo(b&j)fluoranthene	M18-Au04297	NCP	%	129			70-130	Pass	
Benzo(g.h.i)perylene	M18-Au04297	NCP	%	103			70-130	Pass	
Benzo(k)fluoranthene	M18-Au04297	NCP	%	120			70-130	Pass	
Chrysene	M18-Au04297	NCP	%	114			70-130	Pass	
Dibenz(a.h)anthracene	M18-Au04297	NCP	%	87			70-130	Pass	
Fluoranthene	M18-Au04297	NCP	%	126			70-130	Pass	
Fluorene	M18-Au04297	NCP	%	102			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M18-Au04297	NCP	%	77			70-130	Pass	
Naphthalene	M18-Au04297	NCP	%	119			70-130	Pass	
Phenanthrene	M18-Au04297	NCP	%	103			70-130	Pass	
Pyrene	M18-Au04297	NCP	%	118			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	Z18-Au02085	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M18-Au04869	NCP	mg/kg	54	39	33	30%	Fail	Q15
TRH C15-C28	M18-Au04869	NCP	mg/kg	1900	1400	27	30%	Pass	
TRH C29-C36	M18-Au04869	NCP	mg/kg	620	550	13	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	Z18-Au02085	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	Z18-Au02085	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	Z18-Au02085	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	Z18-Au02085	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	Z18-Au02085	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	Z18-Au02085	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	Z18-Au02085	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	Z18-Au02085	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M18-Au04869	NCP	mg/kg	140	100	30	30%	Pass	
TRH >C16-C34	M18-Au04869	NCP	mg/kg	2000	1600	24	30%	Pass	
TRH >C34-C40	M18-Au04869	NCP	mg/kg	250	260	3.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M18-Au04274	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M18-Au04274	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M18-Au04274	NCP	mg/kg	1.1	2.0	59	30%	Fail	Q15
Benz(a)anthracene	M18-Au04274	NCP	mg/kg	1.6	2.3	34	30%	Fail	Q15
Benzo(a)pyrene	M18-Au04274	NCP	mg/kg	2.0	2.7	31	30%	Fail	Q15
Benzo(b&j)fluoranthene	M18-Au04274	NCP	mg/kg	1.4	1.8	24	30%	Pass	
Benzo(g.h.i)perylene	M18-Au04274	NCP	mg/kg	2.2	2.7	20	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(k)fluoranthene	M18-Au04274	NCP	mg/kg	1.5	1.9	21	30%	Pass	
Chrysene	M18-Au04274	NCP	mg/kg	1.8	2.6	33	30%	Fail	Q15
Dibenz(a.h)anthracene	M18-Au04274	NCP	mg/kg	0.7	0.8	12	30%	Pass	
Fluoranthene	M18-Au04274	NCP	mg/kg	4.8	7.1	39	30%	Fail	Q15
Fluorene	M18-Au04274	NCP	mg/kg	< 0.5	0.6	51	30%	Fail	Q15
Indeno(1.2.3-cd)pyrene	M18-Au04274	NCP	mg/kg	1.8	2.3	25	30%	Pass	
Naphthalene	M18-Au04274	NCP	mg/kg	2.6	3.0	16	30%	Pass	
Phenanthrene	M18-Au04274	NCP	mg/kg	3.0	4.8	45	30%	Fail	Q15
Pyrene	M18-Au04274	NCP	mg/kg	4.4	6.4	36	30%	Fail	Q15
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Copper	M18-Au05091	NCP	mg/kg	540	520	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M18-Au08024	NCP	%	5.7	5.9	4.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins | mgt's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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CHAIN OF CUSTODY

JBS&G 2

PROJECT NO.: 54892	LABORATORY BATCH NO.:
PROJECT NAME: BLACK HILL	SAMPLERS: MC / SMW
DATE NEEDED BY:	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JSCOTT@jbsg.com.au; (3) MCOVER@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

FORWARD TO ENVIROLAB WITH SPLIT SAMPLES

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	5 COMBINATION	NITROGEN	PHOSPHATE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
1	QC01A	SOIL	25/7		BAG + JAR + ICE		✓	✓	✓				
2	QC02A	↓	↓		↓		✓	✓	✓				
3	QC03A				JAR + ICE					✓			
4	QC04A				BAG + JAR + ICE		✓	✓	✓				

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 14331

Date Received: 30/7/15

Time Received: 9:30

Received by: CB

Temp: Cool/Ambient

Cooling: Ice/Pack

Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: COLIN DATE: 30/7/15	COOLER SEAL – Yes ✓ No ..... Intact ✓ Broken .....
OF:	TRANSPORT CO	OF: ELS 9:30	COOLER TEMP 7 deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 54892
PROJECT NAME: BLACK HILL
DATE NEEDED BY:
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) JSCOTT@jbsg.com.au; (3) MCOVER@jbsg.com.au

LABORATORY BATCH NO.:
SAMPLERS: SMW / MC
QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

FORWARD TO ENVIROLAB WITH SPLIT SAMPLES

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	COMBUSTION #3	NITROGEN	PHOSPHATE	HOLD	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
5	QC05A	soil	26/7		BAG + JAR + ICE					/			
6	QC06A	↓	↓		JAR + ICE					/			
7	QC07A				BAG + JAR + ICE					/			
8	QC08A				↓		/						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: DATE: OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO Forms013 – Chain of Custody - Generic

Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 14331

Client Details

Client	JBS & G Australia Pty Ltd
Attention	J Scott
Address	1/50 Margaret St, Sydney, NSW, 2000

Sample Details

Your Reference	**54892 - Black Hill**
Number of Samples	8 Soil
Date samples received	30/07/2018
Date completed instructions received	30/07/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	06/08/2018
Date of Issue	06/08/2018

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Results Approved By
Chris De Luca, Senior Chemist

Authorised By

Pamela Adams, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		14331-1	14331-2	14331-4	14331-8
Your Reference	UNITS	QC01A	QC02A	QC04A	QC08A
Date Sampled		25/07/2018	25/07/2018	25/07/2018	26/07/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	31/07/2018	31/07/2018	31/07/2018	31/07/2018
Date analysed	-	31/07/2018	31/07/2018	31/07/2018	01/08/2018
vTRH C_6 - C_9	mg/kg	<25	<25	<25	<25
vTRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25
TRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	87	66	89	87

TRH Soil C10-C40 NEPM					
Our Reference		14331-1	14331-2	14331-4	14331-8
Your Reference	UNITS	QC01A	QC02A	QC04A	QC08A
Date Sampled		25/07/2018	25/07/2018	25/07/2018	26/07/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	31/07/2018	31/07/2018	31/07/2018	31/07/2018
Date analysed	-	31/07/2018	31/07/2018	31/07/2018	31/07/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	100	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	110	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	110	<50	<50
Surrogate o-Terphenyl	%	91	93	94	95

PAHs in Soil					
Our Reference		14331-1	14331-2	14331-4	14331-8
Your Reference	UNITS	QC01A	QC02A	QC04A	QC08A
Date Sampled		25/07/2018	25/07/2018	25/07/2018	26/07/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	30/07/2018	30/07/2018	30/07/2018	30/07/2018
Date analysed	-	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(b,j&k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0	0	0	0
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.1	0.1	0.1	0.1
Benzo(a)pyrene TEQ calc (PQL)	mg/kg	0.2	0.2	0.2	0.2
Surrogate p-Terphenyl-d_{14}	%	96	102	94	96

OCP in Soil				
Our Reference		14331-1	14331-2	14331-4
Your Reference	UNITS	QC01A	QC02A	QC04A
Date Sampled		25/07/2018	25/07/2018	25/07/2018
Type of sample		Soil	Soil	Soil
Date extracted	-	30/07/2018	30/07/2018	30/07/2018
Date analysed	-	01/08/2018	01/08/2018	01/08/2018
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
Hexachlorobenzene	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Total +ve reported DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d_{14}	%	96	102	94

PCBs in Soil				
Our Reference		14331-1	14331-2	14331-4
Your Reference	UNITS	QC01A	QC02A	QC04A
Date Sampled		25/07/2018	25/07/2018	25/07/2018
Type of sample		Soil	Soil	Soil
Date extracted	-	30/07/2018	30/07/2018	30/07/2018
Date analysed	-	01/08/2018	01/08/2018	01/08/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d_{14}	%	96	102	94

Acid Extractable metals in soil					
Our Reference		14331-1	14331-2	14331-4	14331-8
Your Reference	UNITS	QC01A	QC02A	QC04A	QC08A
Date Sampled		25/07/2018	25/07/2018	25/07/2018	26/07/2018
Type of sample		Soil	Soil	Soil	Soil
Date digested	-	31/07/2018	31/07/2018	31/07/2018	31/07/2018
Date analysed	-	31/07/2018	31/07/2018	31/07/2018	31/07/2018
Arsenic	mg/kg	11	7	9	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	17	29	6
Copper	mg/kg	10	90	13	19
Lead	mg/kg	10	24	23	20
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	8	52	19	14
Zinc	mg/kg	22	730	71	150

Nitrogen(TKN,NO2,NO3,OrgN,NH3)				
Our Reference	UNITS	14331-1	14331-2	14331-4
Your Reference		QC01A	QC02A	QC04A
Date Sampled		25/07/2018	25/07/2018	25/07/2018
Type of sample		Soil	Soil	Soil
Date prepared	-	03/08/2018	03/08/2018	03/08/2018
Date analysed	-	06/08/2018	06/08/2018	06/08/2018
TKN as N in soil	mg/kg	1,200	6,100	4,000
Nitrite as N in soil	mg/kg	<0.1	1	1.6
Nitrate as N in soil	mg/kg	<0.5	4.7	1.6
NOx as N in soil	mg/kg	<0.5	5.7	3.2
Ammonia as N in soil	mg/kg	4.0	46	38
Organic Nitrogen as N	mg/kg	1,200	6,100	4,000
Phosphate as P in soil	mg/kg	<0.5	30	5.9

Moisture					
Our Reference		14331-1	14331-2	14331-4	14331-8
Your Reference	UNITS	QC01A	QC02A	QC04A	QC08A
Date Sampled		25/07/2018	25/07/2018	25/07/2018	26/07/2018
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	31/07/2018	31/07/2018	31/07/2018	31/07/2018
Date analysed	-	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Moisture	%	26	44	35	26

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 12 hours.
Inorg-055	Nitrate - determined colourimetrically. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Soils are analysed following a water extraction.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA latest edition 4500-NH3 F, Soils are analysed following a KCl extraction.
Inorg-060	Phosphate determined colourimetrically based on EPA365.1 and APHA latest edition 4500 P E. Soils are analysed following a water extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Note, For OCs the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-012	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD or GC-MS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	14331-8
Date extracted	-			31/07/2018	1	31/07/2018	31/07/2018		31/07/2018	31/07/2018
Date analysed	-			31/07/2018	1	31/07/2018	31/07/2018		31/07/2018	01/08/2018
vTRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	96	91
vTRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	96	91
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	93	91
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	103	92
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	97	93
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	93	90
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	95	114
Naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	97	1	87	89	2	104	85

QUALITY CONTROL: TRH Soil C10-C40 NEPM						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	14331-8
Date extracted	-			31/07/2018	1	31/07/2018	31/07/2018		31/07/2018	31/07/2018
Date analysed	-			31/07/2018	1	31/07/2018	31/07/2018		31/07/2018	31/07/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	79	81
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	75	81
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	80	72
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	79	81
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	75	81
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	80	72
Surrogate o-Terphenyl	%		Org-003	87	1	91	91	0	85	97

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	14331-4
Date extracted	-			30/07/2018	1	30/07/2018	30/07/2018		30/07/2018	30/07/2018
Date analysed	-			01/08/2018	1	01/08/2018	01/08/2018		01/08/2018	01/08/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	72	71
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	64	67
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	68	63
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	60	67
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	64	67
Pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	68	67
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	96	71
Benzo(b,j&k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	<0.05	<0.05	0	76	76
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d_{14}	%		Org-012	92	1	96	94	2	68	84

QUALITY CONTROL: OCP in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	14331-4
Date extracted	-			30/07/2018	1	30/07/2018	30/07/2018		30/07/2018	30/07/2018
Date analysed	-			01/08/2018	1	01/08/2018	01/08/2018		01/08/2018	01/08/2018
alpha-BHC	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	72	71
Hexachlorobenzene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	72	67
gamma-BHC	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	64	112
delta-BHC	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	68	71
Heptachlor Epoxide	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	76	79
gamma-Chlordane	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	72	76
alpha-chlordane	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	64	71
Dieldrin	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	68	76
Endrin	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	104	135
Endosulfan II	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	72	88
Endrin Aldehyde	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	60	67
Methoxychlor	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d_{14}	%		Org-012	92	1	96	94	2	68	84

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	14331-4
Date extracted	-			30/07/2018	1	30/07/2018	30/07/2018		30/07/2018	30/07/2018
Date analysed	-			01/08/2018	1	01/08/2018	01/08/2018		01/08/2018	01/08/2018
Aroclor 1016	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	82	76
Aroclor 1260	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d_{14}	%		Org-012	92	1	96	94	2	68	84

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			31/07/2018	[NT]	[NT]	[NT]	[NT]	31/07/2018	[NT]
Date analysed	-			31/07/2018	[NT]	[NT]	[NT]	[NT]	31/07/2018	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	105	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	110	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: Nitrogen(TKN,NO2,NO3,OrgN,NH3)					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			03/08/2018	[NT]	[NT]	[NT]	[NT]	03/08/2018	[NT]
Date analysed	-			06/08/2018	[NT]	[NT]	[NT]	[NT]	06/08/2018	[NT]
TKN as N in soil	mg/kg	10	Inorg-062	<10	[NT]	[NT]	[NT]	[NT]	89	[NT]
Nitrite as N in soil	mg/kg	0.1	Inorg-055	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
NOx as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	[NT]	[NT]	114	[NT]
Ammonia as N in soil	mg/kg	0.5	Inorg-057	<0.5	[NT]	[NT]	[NT]	[NT]	102	[NT]
Organic Nitrogen as N	mg/kg	10	Inorg-062	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phosphate as P in soil	mg/kg	0.5	Inorg-060	<0.5	[NT]	[NT]	[NT]	[NT]	77	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

TKN analysed by Envirolab Sydney. Report number 197426.

Appendix M Data Quality Assessment

DATA USABILITY ASSESSMENT					
Aspect	**DQI**	**Requirement**	**2018 Data Gap Analysis (JBS&G)**	**2017 Due Diligence (JBS&G)**	**2013 SCI (NAA)**
Precision	Intra-Laboratory Duplicates (blind)	Collected at a rate of 1/20 primary samples for each sampling batch. Analysed for primary contaminants of concern at a minimum, with analysis for secondary contaminants of concern to be based on professional judgement. RPDs less than 30% should be considered as indicative of acceptable precision. RPDs above 30% should be discussed (i.e. likely cause, consequences for data interpretation).	DQI requirement generally met: • Nine blind duplicate samples were collected for 155 primary soil samples collected. • Five blind duplicate samples were analysed for 67 primary soil samples analysed. Based on the above, soil blind duplicates were collected at a rate greater than 1/20 per batch. RPDs for the soil duplicate samples indicate generally acceptable precision, with the following RPD exceedances: • General metal exceedances within most blind duplicate samples, with isolated nitrogen derivatives, TRH fractions, phosphorous and potassium within some blind duplicates. Based on heterogeneity in the soil samples, and the fact that none of the recorded results (primary or blind duplicate) exceeded the adopted criteria, these elevated RPDs are not considered to affect the validity or quality of the sampling program.	DQI requirement not met. No duplicates were collected due to the limited scope and focus of the investigation (i.e. pre-purchase due diligence). This is not considered to represent a critical issue considering that the majority of the data obtained pertains to the visual evidence of asbestos contamination, with relatively minor analysis for other contaminants. The limited data collected for other contaminants is considered to be consistent with what may reasonably be expected based upon NAA (2013) and this assessment. As such, the lack of duplicates is not considered to represent a critical issue.	DQI requirement generally met: • Six QA/QC samples for soil were collected for 60 soil samples collected. All QA/QC and primary samples were analysed. • One QA/QC sample for water was collected for 11 primary water samples. All QA/QC and primary samples were analysed. Based on the above, soil and water blind duplicates were collected at a rate greater than 1/20 per batch. RPDs for the soil and groundwater blind duplicate samples indicate generally acceptable precision, with the exception of one (190% for phosphorous in one soil sample. Based on heterogeneity in the soil sample, the elevated RPDs are not considered to affect the validity or quality of the sampling program.
	Inter-laboratory duplicates (split)	Collected at a rate of 1/20 primary samples for each sampling batch. Analysed for primary contaminants of concern at a minimum, with analysis for secondary contaminants of concern to be based on professional judgement. RPDs less than 30% should be considered as indicative of acceptable precision. RPDs above 30% should be discussed (i.e. likely	DQI requirement generally met: • Eight split duplicate samples were collected for 155 primary soil samples collected. • Four split duplicate samples were analysed for 67 primary soil samples analysed. Based on the above, soil blind duplicates were collected at a rate greater than 1/20 per batch.	DQI requirement not met. No duplicates were collected due to the limited scope and focus of the investigation (i.e. pre-purchase due diligence). This not considered to be critical due to the factors stated in the row above.	DQI requirement not met as inter-laboratory duplicates did not appear to have been collected or analysed. This is not considered to be critical on the basis of the blind duplicate results and internal laboratory QA/QC. The data collected is also considered to be broadly consistent with the findings of

		cause, consequences for data interpretation).	RPDs for the soil duplicate samples indicate generally acceptable precision, with the following RPD exceedances: • General metal exceedances within most duplicate samples, with isolated nitrogen derivatives and TRH fractions split duplicates. Based on heterogeneity in the soil samples, and the fact that none of the recorded results (primary or duplicate) exceeded the adopted health-based criteria, these elevated RPDs are not considered to affect the validity or quality of the sampling program.		investigations conducted by JBS&G during 2018 with respect to the nature and extent of contamination.
	Laboratory duplicates	Laboratory duplicates to be performed as required by NATA accreditation. RPDs to be <30%. RPDs above 30% should be discussed (i.e. likely cause, consequences for data interpretation).	DQI requirement generally met. RPDs were within acceptable limits, with the exception of: • Arsenic and TRH C29-C36 duplicates in lab report 609672-S. These exceedances were found to be within the Eurofins acceptance criteria, or were found to be caused by heterogeneity within the material tested. • TRH C10-C14, Anthracene, Benz(a)anthracene, Benzo(a)pyrene, Chrysene, Fluoranthene, Fluorene, Phenanthrene, and Pyrene duplicates in lab report 611092-S. These exceedances were found to be within the Eurofins acceptance criteria.	DQI requirement met. RPDs were within acceptable limits.	DQI requirement generally met. RPDs were within acceptable limits, with the exception of: • Arsenic, Cadmium, Chromium duplicates in lab report 382041-S. These exceedances were found to be within the Eurofins acceptance criteria.
Accuracy	Field rinsate blanks	Collected at a rate of 1 per piece of decontaminated sampling equipment per day of sampling.	DQI requirement generally met. Sample equipment requiring decontamination was not used	DQI requirement generally met. Sample equipment requiring decontamination was not used	Rinsate samples were not known to have been collected during the investigation. Although plant was

		Analysed for primary contaminants of concern at a minimum, with analysis for secondary contaminants of concern to be based on professional judgement. Laboratory results below laboratory reporting limits should be considered to be indicative of adequate decontamination procedures. Detections above laboratory reporting limits should be discussed (i.e. likely cause, consequences for data interpretation).	during the investigation. Care was taken to collect samples which had not been in contact with plant bucket.	during the investigation. Care was taken to collect samples which had not been in contact with plant bucket.	used to collect samples, which does not require decontamination if sampling conducted appropriately, hand sampling equipment was also used which would have required decontaminating between sample locations.
	Field trip blanks	Collected at a rate of 1 per day of sampling where primary contaminants of concern include volatiles. Analysed for volatiles of concern. Laboratory results below laboratory reporting limits should be considered to be indicative of no significant cross contamination during sample transport. Detections above laboratory reporting limits should be discussed (i.e. likely cause, consequences for data interpretation).	DQI requirement met. A representative trip blank was analysed from the investigation which identified all COPC below the laboratory limit of detection.	DQI requirement met. Trip blanks were not submitted during this investigation. This is considered to be acceptable based upon the focus of the investigation (i.e. asbestos), noting no evidence of volatile contamination was detected and field quality assurance controls to minimise volatile loss were implemented.	DQI requirement met. Trip blanks were not submitted during this investigation. T This is considered to be acceptable based upon the focus of the investigation (i.e. asbestos), noting no evidence of volatile contamination was detected and field quality assurance controls to minimise volatile loss were implemented.
	Field trip spikes	Collected at a rate of 1 per batch where primary contaminants of concern include volatiles. Analysed for volatiles of concern. Laboratory results within =/-30% of the spike concentration should be considered to be indicative of no significant volatile loss during sample transport. Recoveries outside =/-30% should be discussed (i.e. likely cause, consequences for data interpretation).	DQI requirement met. A representative trip spike was analysed from the investigation and the result was within 30% of the spike concentration.	DQI requirement met. Trip spikes were not submitted during this investigation. This is considered to be acceptable based upon the focus of the investigation (i.e. asbestos), noting no evidence of volatile contamination was detected and field quality assurance controls to minimise volatile loss were implemented.	DQI requirement met. This is considered to be acceptable based upon the focus of the investigation (i.e. asbestos), noting no evidence of volatile contamination was detected and field quality assurance controls to minimise volatile loss were implemented.
	Laboratory surrogate spikes	Surrogate spikes to be performed as required by NATA accreditation. Recoveries to be within 70-130%, or 30%-130% (phenols only). Recoveries outside these ranges should be discussed (i.e. likely	Surrogate spikes were not performed for this analysis. Based on the analytes of concern this is deemed acceptable and does not pose a risk to the quality of the analysis.	Surrogate spikes were not performed for this analysis. Based on the analytes of concern this is deemed acceptable and does not pose a risk to the quality of the analysis.	Surrogate spikes were not performed for this analysis. Based on the analytes of concern this is deemed acceptable and does not pose a risk to the quality of the analysis.

		cause, consequences for data interpretation).			
	Laboratory method blanks	Laboratory method blanks to be performed as required by NATA accreditation. Method blank results to be below laboratory reporting limits. Detections above laboratory reporting limits should be discussed (i.e. likely cause, consequences for data interpretation).	DQI requirement met. Method blank results were below laboratory reporting limits.	DQI requirement met. Method blank results were below laboratory reporting limits.	DQI requirement met. Method blank results were below laboratory reporting limits.
	Laboratory control samples	Laboratory control samples to be performed as required by NATA accreditation. Recoveries to be within 70-130%, or 30%-130% (phenols only). Recoveries outside these ranges should be discussed (i.e. likely cause, consequences for data interpretation).	DQI requirement met. No potentially significant recovery issues were identified.	DQI requirement met. No potentially significant recovery issues were identified.	DQI requirement met. No potentially significant recovery issues were identified.
	Laboratory matrix spikes	Matrix spikes to be performed as required by NATA accreditation. Recoveries to be within 70-130%, or 30%-130% (phenols only). Recoveries outside these ranges should be discussed (i.e. likely cause, consequences for data interpretation).	DQI generally requirement met. All matrix spike recoveries were within the acceptable range, with the exception of chromium (127%) (in report 609429-S), chromium (132%) and zinc (179%) (in report 609672-S. As these samples met the LCS requirement, it was attributed to matrix interference, and does not pose a risk to the quality of the analysis.	DQI requirement met. No potentially significant recovery issues were identified.	DQI requirement met. No potentially significant recovery issues were identified.
	Data transcription	Esdat system to be used in order to minimise risk of data transcription errors.	DQI requirement met.	DQI requirement met.	It is unknown if Esdat was used to compile tables. A cross check of the results tables and the laboratory reports indicate the data is accurate.
Representativeness	Soil sampling locations	Soil samples are to be based within AEC which were being targeted as part of the investigation.	DQI requirement met. As this was a staged approach, with the allowance of additional investigations, the number and position of sample locations was considered appropriate to meet the objective.	DQI requirement met. Soil sample locations were located in areas previously identified as AEC, or new AECs based on field observations.	DQI requirement met. Soil sample locations were located in areas previously identified as AEC, or new AECs based on field observations.

	Soil sampling depths	Soil sampling locations are to be extended to an appropriate depth to characterise the AEC being targeted. This may include just surface sampling or progressing sample locations to natural soils.	DQI requirement met. Soil sample locations were advanced to natural within Farm 19 and the Ponds, with the exception of three locations in Farm 19 which were surface locations only. It is understood this occurred due to time constrains. The surface sampling was considered appropriate for the AECs and COCPs targeted.	DQI requirement met. Sample locations generally advanced into natural soils.	DQI requirement met. Sample locations generally advanced into natural soils.
	Soil Sampling Methodology	Soil samples to be collected using methodology which was appropriate for the contaminants of concern.	DQI requirement met.	DQI requirement met.	DQI requirement met.
	Soil sampling containers	Soil samples to be collected into laboratory supplied, clean and unpreserved jars.	DQI requirement met.	DQI requirement met.	DQI requirement met.
	Soil sample headspace	Soil samples to be collected with zero headspace, unless volatiles are of no concern.	DQI requirement met.	DQI requirement met.	DQI requirement met.
	Soil sampling equipment decontamination	Soil samples to be collected using a clean pair of disposable gloves at each location. Non-disposable equipment is to be decontaminated between locations using phosphate free detergent, rinsed with deionised water and dried with lint free paper towel.	DQI requirement met.	Although this is not clearly stated in the report JBS&G can confirm this DQI requirement was met..	The report does not specify that equipment decontamination occurred and a rinsate sample is not noted to have been collected. This is not considered to represent a critical issue based on nature and extent of contamination identified (i.e. limited evidence of contamination, which limits significant of potential cross contamination).
	Soil sample collection intervals	Soil samples to be collected at regular intervals based upon stratigraphy and EA requirements.	DQI requirement met.	DQI requirement met.	Sampling within test pits was not conducted at regular intervals. Soil samples were collected based on a field and lithological observations.
	Sample storage	Samples to be placed in an insulated container and chilled using ice.	DQI requirement met.	DQI requirement met.	DQI requirement met. Report does not indicate specifically that samples were chilled, however, considered likely.

	Sample transport from field to laboratory	Samples to be transported to laboratory under chain of custody conditions.	DQI requirement met.	DQI requirement met.	DQI requirement met. Report does not indicate specifically that samples were transported with COC, however, considered likely.
	Holding times	Samples to be extracted and analysed within recommended holding times.	DQI requirement met, with the exception of some microbiological testing which was outside holding time by between 2 days.	DQI requirement met, with the exception of microbiological testing which was outside holding time by between 2-5 days.	DQI requirement met.
	Analytical method	Samples to be analysed using a NATA accredited methodology.	DQI requirement met.	DQI requirement met.	DQI requirement met.
Completeness	Field documentation	All relevant field documentation to be collated, including sampling logs and decontamination records.	DQI requirement met.	DQI requirement met.	DQI requirement met.
	Laboratory documentation	All relevant laboratory documentation to be collated, including chain of custody records, sample receipt advice and analytical reports.	DQI requirement met.	DQI requirement met, with the exception of the provision of COC and sample receipt documentation.	DQI requirement met, with the exception of the provision of COC and sample receipt documentation.
	Critical sample validity	All critical sample data to be deemed valid.	DQI requirement met.	DQI requirement met.	DQI requirement met.
	Sampling, analysis and quality approach	Adequately comparable sampling, analysis and quality approach to be used throughout project.	DQI requirement met.	DQI requirement met.	DQI requirement met.
Comparability	Sampler	Samplers used throughout project to have sufficient experience.	DQI requirement met.	DQI requirement met.	DQI requirement met.
	Climatic conditions	Samples to be collected during similar climatic conditions.	DQI requirement met.	DQI requirement met.	DQI requirement met.
SUMMARY	-	-	The soil data is considered to be adequately usable and reliable for the purposes of the assessment.	The soil data is considered to be adequately usable and reliable for the purposes of the assessment.	The soil data is considered to be adequately usable and reliable for the purposes of the assessment.

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Document Status

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		Name	Name	Signature	Date
A	Scott Burrows	Kane Mitchell	Draft - client review	Draft - client review	5 June 2018
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D	John Scott	Kane Mitchell	Draft – client review	Draft – client review	9 August 2018
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