Premise

MR AND MRS SAM AND JACQUI MARTEL

Preliminary Contamination Investigation

20L ROCKY ROAD (PORTION), DUBBO, NSW

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1. INTRODUCTION

1.1 Background

Premise was engaged by Mr and Mrs Sam and Jacqui Martel to conduct a Preliminary Contamination Investigation (PCI) for the site in support of a Planning Proposal to amend the Dubbo Regional Local Environmental Plan 2022 (LEP) in respect of the eastern portion of land at Lot 13 in DP 258406, 20L Rocky Road, Dubbo (the site) as shown on **Figure 1**.

The subject site comprises of approximately 50 ha of R5 Large Lot Residential zoned land. The site is located approximately 10 km south of the Dubbo CBD via Old Dubbo Road. The Macquarie River forms the western border of the land title and is approximately 260 m from the western boundary of the investigation site.

The Planning Proposal seeks to reduce the minimum lot size provision from 20 ha to 8 ha on the subject site. The area to which the proposed lot size reduction applies is currently zoned as R5 Large Lot Residential pursuant to the provisions of the LEP. The intent of the Planning Proposal is to facilitate the appropriate development of the subject site by creating provision for the subdivision of this land (under development application) to meet the objectives of the R5 zone.

Clause 4.6 of the Resilience and Hazards State Environmental Planning Policy (R&H SEPP) requires that a consent authority must consider contamination and remediation in determining a development application and must not grant consent unless:

> *(a) it has considered whether the land is contaminated, and*
>
> *(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
>
> *(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

This PCI is recommended by the *Managing Land Contamination – Planning Guidelines* (Department of Urban Affairs and Planning 1998) under the NSW *State Environmental Planning Policy (Resilience and Hazards) 2021* (R&H SEPP).

This PCI is based on a desktop review of available information, a site walkover reconnaissance, analysis of targeted soil samples and a search of historical records.

1.2 Objectives

This PCI has been prepared in general accordance with the NSW EPA publication *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Land* (EPA, April 2020). The overall objective is to identify the potential for land contamination at the site. Where land is not considered to be suitable for proposed land uses, recommendations for management and/or remediation to minimise risk to the environment, future occupants and contractors would be included.

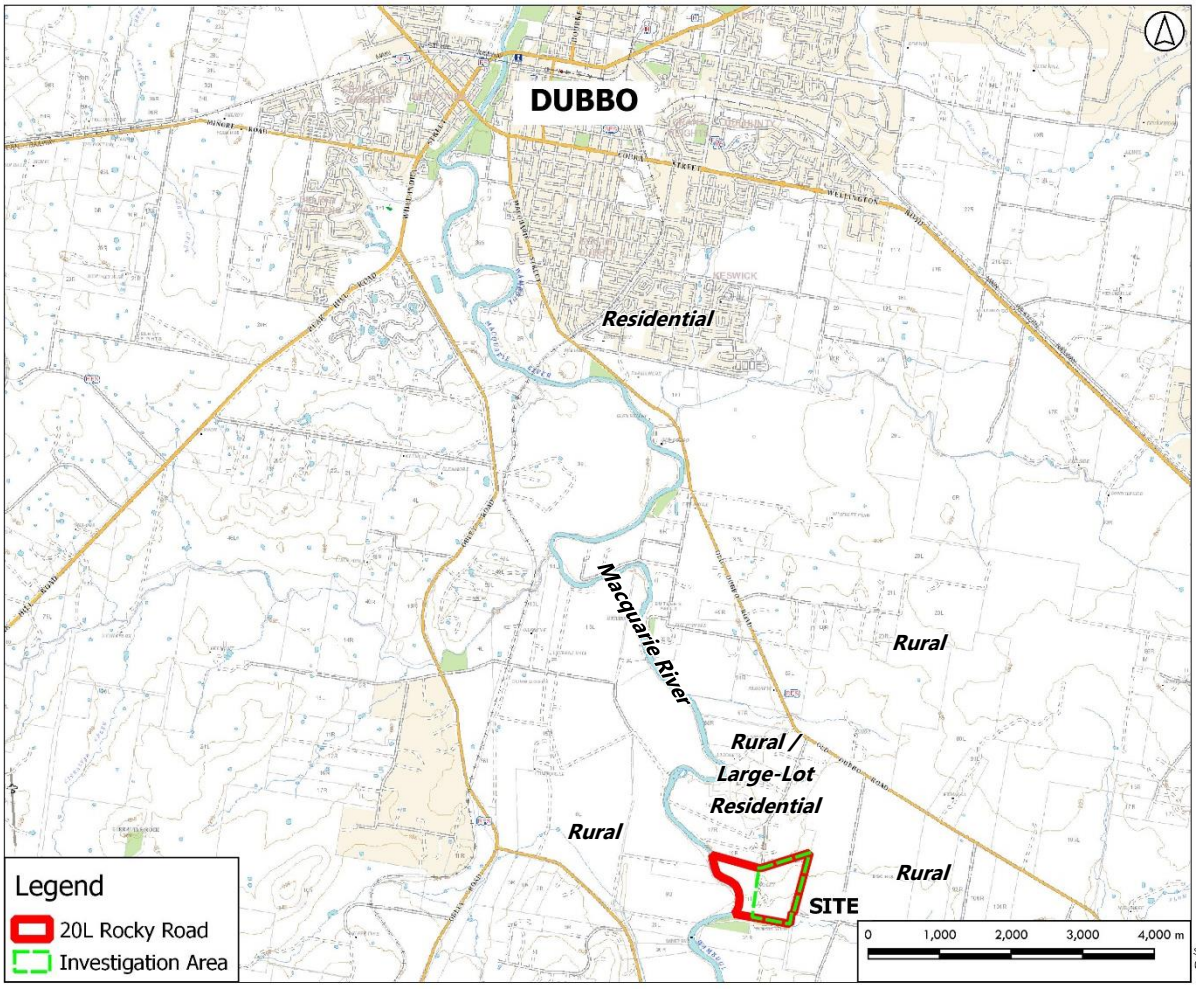
The specific objective of the PCI was to assess the extent of potential soil contamination at the site to have resulted from historic operations at or in proximity to the site. Findings of this investigation are intended to

assist the consent authority in assessing risks associated with a change of land use. The data collected is also intended to identify potential contaminant sources and to evaluate remediation or mitigation options.

This PCI provides data relating to the type, extent and level of contamination in the investigation area, by assessing:

- known site history and operations;
- contaminant distribution in surface soil;
- the adequacy and completeness of all information available to be used in making decisions on remediation to further characterise potential impacts to areas of the site;
- the scope of any further investigation required; and
- any interim management measures required to limit exposure.

Figure 1 – Site Locality



1.3 Investigation Area

The investigation area is shown on **Figure 2**.

The potential for chemicals of potential concern (COPC) to be present in the soil of the area comprising the proposed dwelling requires assessment. Elevated COPC may be representative of a contamination risk to human health and environmental receptors.

Figure 2 – Site Investigation Area

1.4 Scope of Work

The scope of work for this assessment consisted of the following components:

- Review of the following third party documents:
  - Published topographical, geological and soil maps of the area;
  - Details of groundwater bores located within 500 m of the site and registered on the groundwater bore database, maintained by the NSW Office of Water (https://realtimedata.waternsw.com.au/water.stm);
  - The public register managed by the NSW EPA for information on scheduled activities and penalty notices issued under the Protection of the Environment Operations Act;
  - The database managed by the NSW Environment Protection Authority (EPA) for information on notices issued under the Contaminated Land Management Act 1997;

  - Aerial photographs – selected historical aerial photographs of the site available for review to provide evidence of the history of development of the site and indications of potential sources of contamination;
  - Historic title information and charting maps.
- Site inspection – A site inspection by Premise personnel of the site and surrounding areas was undertaken to provide further information, via visual inspection, of potential sources and areas of significant environmental liability. The site inspection focused on the following:
  - Areas where operational processes may have occurred, including waste management, water management, site structures, surfaces and infrastructure.
  - Areas of potential landfilling.
  - Potential impacts of neighbouring land uses.
  - Sensitivity of the receiving environment.
- Collection of samples from surface soil at the site, and laboratory analysis for chemicals of potential concern (COPC) to establish potential for residual chemical impacts.
- Preparation of this factual report detailing the assessment findings in accordance with the NSW EPA publication *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Land* (EPA, 2020).

An overview of the neighbouring area was also conducted to identify the presence and proximity of sensitive receptors which could be significantly impacted upon by the site, and off-site operations which could have a significant impact on land contamination at the site.

2. SITE DESCRIPTION

2.1 Site Definition

Table 2.1 – Summary of Property Description Details

Feature	Details
Site Address[1]	20L Rocky Road, Dubbo NSW (Portion)
Title Identification Details[1]	Lot 13 in DP 258406 (Portion)
Current Ownership	Velo Holdings Pty Ltd
Current Site Use and Zoning[2]	Land Use: Rural Zoning: Large Lot Residential (R5 zoning)
Future Site Use	Large Lot Residential (Subdivision and additional dwellings)
Previous Environmental Reports	Nil
Site Area[1]	50 ha (approximately)
Sources: 1: Partial survey, partial compilation of deposited plans, partial SIX Maps Website developed by NSW Government, Land and Property Information. https://maps.six.nsw.gov.au/ (accessed September 2023). 2: Dubbo Regional Local Environmental Plan, 2013, under the Environmental Planning and Assessment Act 1979.	

2.2 Site Setting

2.2.1 REGIONAL SETTING

The site is located entirely within 20L Rocky Road in Dubbo, approximately 10 km south of the Dubbo central business district. The site is in a generally rural area, however semi-rural lands are located to the immediate north of the site (towards Old Dubbo Rd). Rural land borders the site to the east and south, and the remainder of Lot 13 borders to the west.

A drainage gully aligned and flowing north-to-south is present in the east of the site, which forms an unnamed tributary of the Macquarie River, (approximately 260 m west of the site).

The following sensitive receptors are located within the vicinity of the site:

- Watercourses, including contributory drainage features, discharging to Macquarie River. Such drainage pathways are considered to be sensitive receptors insofar as their connectivity with off-site waterways.
- Current users of the site, and future workers / occupants of the site.
- Residents of dwellings in proximity to the site.
- Groundwater present in aquifer(s) underlying the site.

2.2.2 LOCAL SETTING

The farm homestead and shed structures exist within the investigation area. Other sheds are located on the property title west of the investigation area. The site itself consists of groundcover vegetation (grass) and unsealed access roads, and trees are present predominantly in the southern portion.

Land uses adjacent to the site were obtained from the site inspection conducted by Premise personnel in August 2023. The local area surrounding the site is displayed in **Figure 1**. Identified adjacent land uses are summarised in **Table 2.2**:

Table 2.2 – Adjacent Properties Descriptions

Direction from Site	Site Use (Nature of Activity)
North	Large lot residential
South	Unnamed creek, Rural land with dwelling
East	Rural land
West	Rural land

2.3 Topography and Surface Water

Topographical site information was obtained from the:

- Dubbo SI55-04, 1:250,000 Scale, Topographic Map, Third Edition (Commonwealth of Australia – Geoscience Australia, 2004); and
- Site visit in June 2023

The site of the investigation area consists of a generally undulating landscape with a discernible overall slope downward to the south and west. The elevation at the site ranges from approximately 300 m Australian Height Datum (mAHD) in the north-east, to a high of approximately 310 mAHD at the peak of a hillock in the site's north, to a low of approximately 270 mAHD in the south-west.

Whilst a defined drainage pathway exists in the east of the site, the majority of overland surface flow is presumed to be absorbed into the site. The catchment of surface water flow at the site would include areas to the east of the site, including from other properties.

2.4 Regional and Site Geology

Mapped soil landscapes around the site are shown on **Figure 3**. The northern portion of the site lies on the 'Wongarbon' soil landscape and the southern portion of the site lies on the 'Eulomogo' soil landscape. During the site inspection the soils were identified to be 'euchrozems' in the site's north, tending to 'red earths' in the site's south.

Euchrozems of the Wongarbon soil landscape consists of *"dark reddish-brown clay loam to light clay"* overlying *"dark reddish-brown light to medium clay, changing at 40 cm to reddish-brown to dark red light to medium clay".*

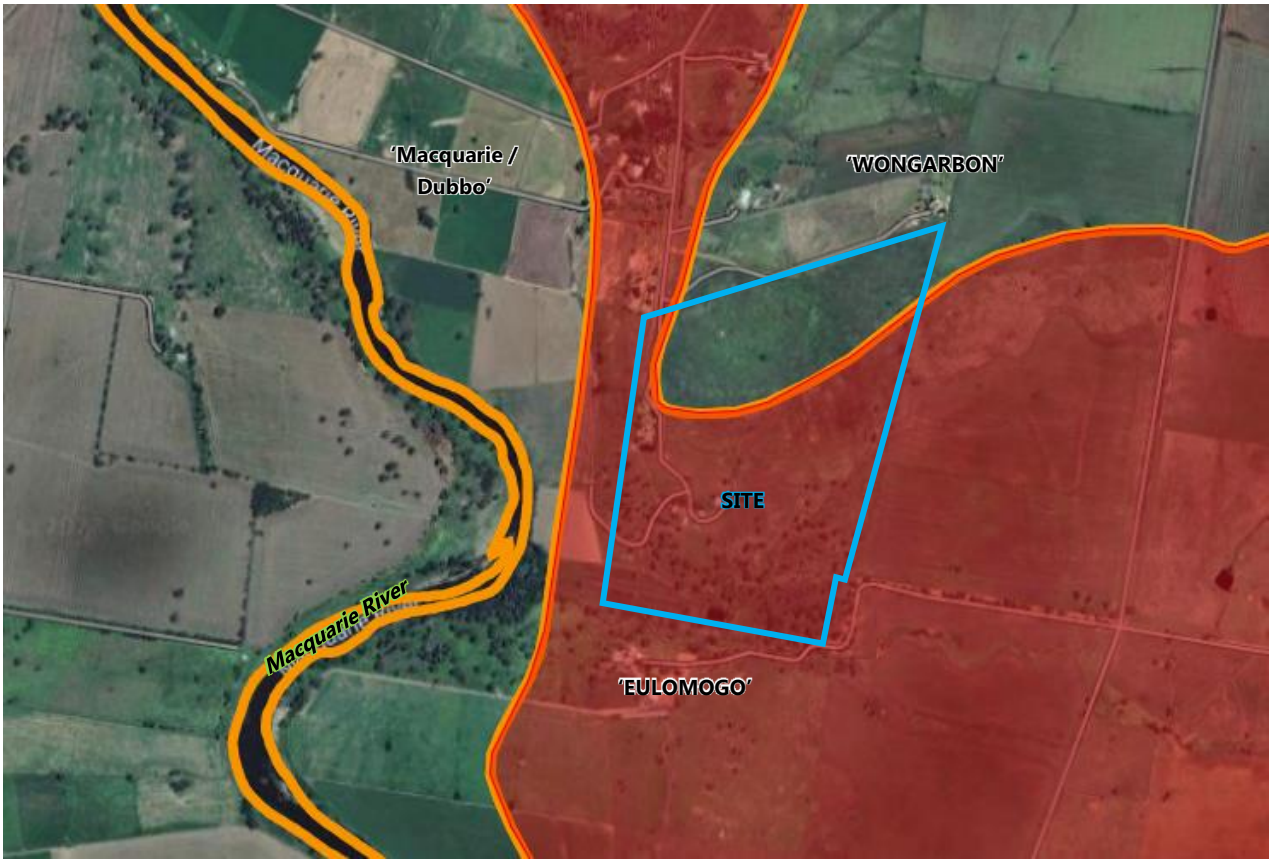
Red earth soil of the Eulomogo soil landscape consists of *"Dark reddish-brown to light reddish-brown sandy loam"* overlying *"dark reddish-brown to light reddish-brown, fine sandy clay loam"*.

The Dubbo 8633 Geological 1 : 100,000 Series Sheet (First Edition, Geological Survey of NSW, 2000) indicates the majority of underlying geology comprises Quaternary era alluvial silt, clay and sand, with variable humic content. Geology may be influenced by the Napperby Formation in the site's north-east, where siltstone, sandstone minor conglomerate may be encountered.

The Australian Soil Resource Information System (ASRIS) on-line database, maintained by CSIRO Land and Water, indicates there is a low probability of occurrence of acid sulphate soils in the area of the site (compiled 2010, accessed September 2023).

The NSW Heads of Asbestos Coordination Authorities (HACA) Mapping of Naturally Occurring Asbestos in NSW (2015) has assessed the geology surrounding the site (i.e., the volcanic sandstone and conglomerate) as having negligible potential for naturally occurring asbestos (NOA) to be found within 10 m of the ground surface. The site is located approximately 20 km north-east of a geological unit with potential for NOA.

Figure 3 – Extent of Soil Landscape Groups



2.5 Regional Hydrogeology

A search for registered groundwater users located proximal to the site was undertaken using the WaterNSW on-line database (https://realtimedata.waternsw.com.au/water.stm), in August 2023. The results indicated that there are no groundwater bores registered at the site and two (2) bores are registered within 500 m of the site. Details of the closest bores to the site are provided in **Table 2.3**.

Table 2.3 – Groundwater Bores within 500 m of Site

Licence Reference and Registered Use	Location (relative to closest portion of site)	Depth	Uppermost Water Bearing Zone
GW802644, Stock / Domestic	115 m west	30.0 mBGL	12.0 mBGL to 20.0 mBGL
GW008211, Stock / Domestic	120 m west	19.8 mBGL	8.5 mBGL
Source: NSW Office of Water on-line database (https://realtimedata.waternsw.com.au/water.stm)			

Registration details of the above groundwater bore are included in **Appendix A**.

Premise has considered the surrounding land uses (refer **Section 3**) and notes the potential for unregistered bores for irrigation, stock and/or domestic purposes proximal to the site.

3. SITE HISTORICAL REVIEW

A review of the site history was undertaken to assess historical use of the site, and in particular to identify activities with the potential to contaminate soil and/or groundwater at the site.

3.1 NSW EPA Records

3.1.1 SCHEDULED ACTIVITIES AND/OR ENVIRONMENTAL NOTICES

A search of the NSW EPA on-line register (https://www.epa.nsw.gov.au/prpoeoapp/) was undertaken in September 2023 for environment protection licenses (EPLs) and/or penalty notices issued under the Protection of the Environment Operations Act (POEO) 1997. No properties located within 500 m of the site are currently licensed under the POEO Act.

No clean-up notices relating to the site or surrounding properties have been issued by the NSW EPA.

3.1.2 CONTAMINATED SITES REGISTER

A search of the NSW EPA on-line register (https://app.epa.nsw.gov.au/prclmapp/searchregister.aspx) and 'List of Notified Sites' was undertaken in September 2023 for contaminated land notices issued or regulated under the Contaminated Land Management (CLM) Act 1997. The search indicated that the NSW EPA holds no contaminated land notices relating to the site or properties within 500 m of the site. No properties were recorded as having been notified to the NSW EPA as potentially contaminated.

3.1 Previous Title Information

Historic title information was sought for titles comprising the site. Previous title ownership for this title is attached in **Appendix B** and summarised in **Table 3.1**:

Table 3.1 – Title History, Lot 21, DP 848167

Date Range	Ownership
20.12.1913 (1913 to 1935)	**Volume 2422 Folio 187** Thomas Draper Palmer (Farmer & Grazier)
02.04.1935 (1935 to 1944)	**Volume 2422 Folio 187** Florence Elizabeth Palmer (Widow) George Thomas Bryan Palmer (Farmer & Grazier)
20.12.1944 (1944 to 1949)	**Volume 2422 Folio 187** John Mankin Mackay (Grazier)
01.12.1949 (1949 to 1952)	**Volume 5484 Folio 231** Thomas Theyre Weigall (Grazier)
28.02.1952 (1952 to 1952)	**Volume 5484 Folio 231** Dorothy Clare Weigall (Widow)
18.04.1952 (1952 to 1958)	**Volume 5484 Folio 231** Sydney Denson Wye (Grazier)

Date Range	Ownership
11.07.1958 (1958 to 2022)	**Volume 13008 Folio 101 / Volume 13974 Folio 179** Howard Sydney Wye (Farmer & Grazier)
06.07.2022 (2022 to date)	**Lot 13 DP 258406** Velo Holdings Pty Ltd

3.2 Historic Aerial Photography

An historical aerial photography survey was undertaken for the site, with a total of eight (8) photographs identified and reviewed. The historical aerial photographs that were reviewed spanned a period of approximately 69 years, with the most recent from 2023, to the earliest in 1964. Aerial photographs, as attached in **Appendix C**, were reviewed to track changes in use of the site and surrounding properties over time. Key observations made during the review of aerial photos are summarised in **Table 3.1** as follows:

Table 3.1 – Summary of Aerial Photo Information

Date	Site Activity	Surrounding Land Use
1964	The farm sheds are present within the investigation area. The site appears to be utilised for grazing.	The area exists as rurally used land to the south of Dubbo. Sheds are present to the west of the site and a homestead with associated structures is present to the south.
1980	The homestead (and ancillary structures) is now present in the west of the site. The area encompassing the remainder of the site is generally unchanged.	Land uses of the surrounding area do not appear to have been significantly altered.
1991	The area encompassing the site is generally unchanged.	Land uses of the surrounding area do not appear to have been significantly altered.
1995	The area encompassing the site is generally unchanged.	Structures are now present to the immediate north-east of the site. Other land uses of the surrounding area do not appear to have been significantly altered.
2006	The area encompassing the site is generally unchanged.	Dwellings are now present in rural blocks to the north of the site. Other land uses of the surrounding area do not appear to have been significantly altered.
2016	The area encompassing the site is generally unchanged.	An expansion of a farm shed to the south of the site has occurred. Other land uses of the surrounding area do not appear to have been significantly altered.
2023	The area encompassing the site is generally unchanged.	Land uses of the surrounding area do not appear to have been significantly altered.

3.3 Summary of Site History Information

The site of the investigation area appears to contain farm shed structures present since prior to 1964, and a homestead dwelling with associated ancillary structures present since prior to 1980. The majority of the site largely has not been actively utilised beyond grazing or other low-intensity agricultural uses.

No evidence of landfilling was apparent from the historic aerial photography, and no evidence of significant 'cut' and/or 'fill' occurring exists.

The following chemicals are potential contaminants at areas of the site based on known historic uses:

- Machinery Use / Storage
  - Heavy metals
  - Petroleum Hydrocarbons and related compounds
- Chemical storage and/or use
  - Heavy metals
  - Total Recoverable Hydrocarbons (TRH) / Total Petroleum Hydrocarbons (TPH)
  - Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN Analytes)
  - Polynuclear Aromatic Hydrocarbons (PAHs)
  - Phenolic compounds
  - Organochlorine pesticides (OCPs)
  - Organophosphorus pesticides (OPPs)
  - Phenoxyacid Herbicides

4. SITE RECONNAISSANCE

Observations from the site inspection are summarised below.

4.1 Waste Management / Landfilling

Evidence of wastes having been disposed on the site by burial / landfilling was identified at portions of the site, as shown on **Figure 4**. In other areas the ground surface was observed to be generally even and no areas of potential subsidence were apparent.

Stressed vegetation, which may be indicative of soil and/or groundwater contamination, was not apparent during the site inspection.

Stockpiled material of uncertain origin was identified in areas of the site, as shown on **Figure 4**.

Based on observations there is little potential for 'cut-and-fill' civil works of significance to have occurred at the site.

4.2 Stormwater

The majority of site stormwater would be infiltrated, however sheet flow may be generated and discharge to the south and west of the site.

4.3 Chemical and Fuel Storage / Spills

Evidence of stored fuels or oils chemicals was observed at the site within the farm sheds.

No findings of the historic aerial photography review (refer to **Section 3.4**) indicate the presence (historic or otherwise) of bulk chemical storage infrastructure at the site.

No sheep dips or cattle dips were observed at the site or anecdotally known to have been installed.

4.4 Asbestos

Premise did not conduct a comprehensive asbestos survey of the structures at the site during the inspection. Potential exists for site structures to have incorporated fibrous cement in cladding, roofing, insulation, piping, etc.

5. ENVIRONMENTAL INVESTIGATION

5.1 Potential Contamination Issues

5.1.1 POTENTIAL SOURCES

Based on the historic and predominantly agricultural uses of the site, activities that are considered to have the potential to adversely impact the soil environment are limited to those associated with application / storage of agricultural chemicals.

5.1.2 CHEMICALS OF POTENTIAL CONCERN (COPC)

COPC associated with previous uses of the site and considered to have the potential to adversely impact the underlying soil and groundwater environments include:

- Heavy metals
  - Arsenic (As)
  - Cadmium (Cd)
  - Chromium (Cr)
  - Copper (Cu)
  - Lead (Pb)
  - Mercury (Hg)
  - Nickel (Ni)
  - Zinc (Zn)
- Total Recoverable Hydrocarbons (TRH) / Total Petroleum Hydrocarbons (TPH)
- Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN Analytes)
- Polynuclear Aromatic Hydrocarbons (PAHs)
- Phenolic compounds
- Organochlorine pesticides (OCPs)
- Organophosphorus pesticides (OPPs)
- Phenoxyacid Herbicides

5.2 Data Quality Objectives

The Data Quality Objectives (DQOs) process is used to define the type, quantity and quality of data needed to support decisions relating to the environmental condition of a site.

A summary of the site-specific DQO process to be adopted in this investigation is provided in the following sections, in the context of the seven step iterative planning approach provided in the 'Amended ASC NEPM' (NEPC, 2013), and the United States Environment Protection Agency (US EPA) documents *Guidance on Systematic Planning Using the Data Quality Objectives Process* (2006) and *Data Quality Objectives Process for Hazardous Waste Site Investigations* (2000).

5.2.1 STEP 1 – STATE THE PROBLEM

The primary objective is to assess for the presence and extent of contamination in soil at the site in the context of the proposed future land use scenarios i.e., residential land use.

The main problems are:

- At present there is limited data and existing data gaps on the contamination status of the site.
- Contamination remaining at the site may present an unacceptable risk to human health and/or ecological receptors.

The investigation area is illustrated on **Figure 2**.

5.2.2 STEP 2 – IDENTIFY THE DECISION

The principal study question that arises from Step 1 is:

What scope of work is required to assess the potential risks posed by contamination and obtain sufficient data to enable conclusive statements to be made on land use suitability; or allow the development of strategies to remediate and/or manage the contamination to an end land use that is suitable for the proposed redevelopment?

Project decisions include:

- Does the environmental media at the site contain concentrations of chemicals of potential concern (COPC) above the investigation criteria for the current and proposed land use?
- Do current concentrations of contaminants pose a human health or ecological risk to the receptors of concern?
- What are the pathways of exposure for human and ecological receptors?
- Is there sufficient data to develop the scope for further investigation or remedial strategies?
- Is there sufficient data to establish whether portions of the site are currently suitable for the intended land uses?
- Can the site be made suitable for the proposed future land use?

5.2.3 STEP 3 – IDENTIFY THE INPUTS TO THE DECISION

The primary inputs required include:

- Relevant background data provided and any relevant data obtained from previous investigations.
- New data collected and observations made during field works, which may include information on potential contaminant migration pathways (e.g. stormwater drainage and groundwater flow directions).
- Results of chemical analyses of samples for the identified COPC.
- Assessment of the suitability of new and old data for the purposes of environmental assessment through application of data quality indicators (DQIs), namely precision, accuracy, representativeness, completeness and comparability (PARCC) parameters.
- Assessment of the data in the context of the adopted investigation criteria.

5.2.4 STEP 4 – DEFINE THE STUDY BOUNDARIES

The spatial boundaries are limited to:

- Lateral – as defined by the areas illustrated on **Figure 2**.

- Vertical – from the existing ground level to the depth necessary to collect soil data to delineate the vertical extent of impact.

Temporal boundaries are not considered to be necessary in the context of this investigation.

5.2.5 STEP 5 – DEVELOP A DECISION RULE

The decision rules will be:

- If the concentrations of contaminants in the new data exceed investigation criteria; then assess the need to further investigate the extent of impacts on-site and off-site.
- If it is assessed that contamination at the site poses an unacceptable risk to human health and/or the environment; then make recommendations for potential management options necessary to remove/reduce the risk.
- If aesthetic issues (i.e. visible waste material) identified during field observations pose potential concerns for the future development, then consider similar recommendations for potential management options necessary to remove/reduce the concern.

Decision criteria for QA/QC measures are defined below. A decision on the acceptance of the analytical data will be made on the basis of the Data Quality Indicators (DQI) in the context of the 'PARCC' parameters as follows.

- Precision: A quantitative measure of the variability (or reproducibility) of data.
- Accuracy: A quantitative measure of the closeness of reported data to the "true" value.
- Representativeness: The confidence (expressed qualitatively) that data are representative of each media present on Site.
- Completeness: A measure of the amount of useable data from a data collection activity.
- Comparability: The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event.

The quantitative and qualitative measures/criteria employed to enable application of these parameters are described as follows:

Precision

Suitable criteria and/or performance indicators for assessment of precision include:

- Performance of laboratory duplicate sample sets through calculation of relative percentage differences (RPD).
- The RPDs will be assessed as acceptable if less than 30%. RPDs that exceed this range may be considered where:
  - Results are less than 10 times the limit of reporting (LOR) – RPDs values of 100% or less would be acceptable in consideration of all other DQI data
  - Results are less than 20 times the LOR and the RPD value is less than 50%
  - Elevated organic compounds are detected, where field observations indicated organic matter or volatile compounds to be present, and the RPD is less than 50%
  - Heterogeneous materials and variations in soil types and compositions are encountered.

Accuracy (Bias)

The closeness of the reported data to the 'true' value is assessed through review of performance of:

- Method blanks, which are analysed for the analytes targeted in the primary samples.
- Matrix spike and matrix spike duplicate sample sets (to be specifically requested to be performed by the primary laboratory, for each sample batch submitted).
- Laboratory control samples.
- Surrogates.

Representativeness

To ensure the data produced by the laboratory is representative of conditions encountered in the field, the following steps are taken by the laboratory and subsequently reviewed:

- Blank samples will be run in parallel with field samples to confirm there are no unacceptable instances of laboratory cross-contamination.
- Review of relative percentage differences (RPD) values for field and laboratory duplicates to provide an indication that the samples are generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities.
- The appropriateness of collection methodologies, handling, storage and preservation techniques will be assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (e.g., volatile loss during transport due to incorrect preservation / transport methods).

A review of the methodology used to collect all samples (soil, groundwater, surface water, sediment) will also ensure the representativeness of the data.

Completeness

In validating the degree of completeness of the analytical data sets acquired during the program the following is considered:

- Whether standard operating procedures (SOPs) for sampling protocols have been adhered to.
- Copies of all COC documentation are reviewed and presented.
- Have sufficient soil samples have been collected and analysed.

It can therefore be considered whether the proportion of 'useable data' generated in the data collection activities is sufficient for the purposes of the land use assessment.

Comparability

Given that the reported data set can comprise several data sets from separate sampling events, issues of comparability between data sets are reduced through adherence to Standard Operating Procedures (SOPs) and regulator endorsed or made guidelines and standards on each data gathering activity.

In addition the data will be collected by experienced field staff and NATA accredited laboratory methodologies will be engaged in all laboratory operations.

5.2.6 STEP 6 – SPECIFY LIMITS ON DECISION ERRORS

Specific limits for this project are in accordance with the appropriate guidance made or endorsed by the NSW EPA, appropriate indicators of data quality, and standard procedures for field sampling and handling.

This step also examines the certainty of conclusive statements based on the available site data collected to quantify the allowable errors in decision making. This should include the following points to quantify tolerable limits:

1. A decision can be made based on whether the calculated 95% Upper Confidence Limit of the arithmetic mean concentration of a chemical in soil, within a specified soil data set, will satisfy the given site criteria. Therefore a limit on the decision error will be 5% that a conclusive statement regarding a specified soil data set may be incorrect.
2. For the 95% Upper Confidence Limit of the arithmetic mean concentration of a chemical in soil to be considered, the standard deviation of the results should be less than 50% of the relevant investigation or screening level, and no single value should exceed 250% of the relevant investigation or screening level.

5.2.7 STEP 7 – OPTIMISE THE DESIGN

The investigation program presented for the area identified on **Figure 2** is aimed at obtaining the necessary data to allow the identified decisions in Step 2 to be made.

The sampling design is presented in detail in **Sections 5.4** of this document. A comprehensive Sampling and Analysis Quality Plan (SAQP), identified in *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Land* (EPA, April 2020) as a requirement of a S1 PSI where sampling is undertaken, has not been prepared as a component of this investigation. Premise notes this as a deviation from the guidelines, however considers a SAQP to not be warranted based on the relatively low-risk historic uses of the site as identified in the desktop portion of this investigation.

5.3 Soil Investigation Criteria for Residential Land-Uses

5.3.1 HUMAN HEALTH

The soil investigation levels utilised for this investigation are consistent with those described within the National Environment Protection Council (NEPC), *Amended National Environment Protection (Assessment of Site Contamination) Measure 1999* (Amended ASC NEPM) 2013. Based on future uses at the site including residential, corresponding investigation levels have been adopted, as follows.

- Health Investigation Levels (HIL) A – includes residential with garden / accessible soil (no poultry), also includes childcare centres, preschools and primary schools.
- Aesthetic issues generally relate to the presence of materials with a negligible risk or non-hazardous inert foreign material in soil or fill resulting from human activity. In particular, soils on site should not exhibit discolouration (staining), a malodorous nature (odours) or abnormal consistency (rubble and asbestos).

5.3.2 ECOLOGICAL

The Amended ASC NEPM (2013) is also applicable for assessing risk to ecological receptors by providing ecological investigation levels (EILs) for heavy metals.

- The Amended ASC NEPM (NEPC, 2013) provides EILs for selected metals and organic substances, applicable for assessing risk to terrestrial ecosystems. EILs can be dependent on specific soil physicochemical properties. It is noted that the EILs generally apply to the top two metres of soil and are based impacts present in soil for at least 2 years.
- Based on the current land use and zoning for the site and identified COPC, the EILs utilised to assess the potential risks to ecological receptors are 'added contaminant limits' (ACLs) for zinc, copper, chromium, nickel and lead, and as such are considered to be conservative. The generic EIL for arsenic has been adopted.

- Concentrations of contaminants in the soil are to be compared against the urban residential / public open space land use EILs.
- For the purposes of this investigation and based on field observations during sampling, conservative soil physicochemical properties have been assumed, as follows:
  - pH of 5.0
  - Cation exchange capacity (CEC) of 10 $cmol^{(+)}/kg$
  - Clay content 1%

5.4 Sampling and Analysis Strategy

5.4.1 METHODOLOGY

The following table outlines the scope and method of the assessment.

Table 5.1 – Assessment Methodology Summary

Activity / Item	Details
Date of Field Activities	24 August 2023
Samples Collected	Sample locations are shown on **Figure 4** 22 soil sampling locations were identified in a combined systematic / judgemental sampling pattern from across the site. It is recognised that the sampling density for assessing the nominated site zones was fewer than minimum requirements of the Australian Standard AS4482.1-2005, Guide to the investigation and sampling of sites with potentially contaminated soil for land areas of certain sizes. The broad coverage of the sampling locations is considered to have provided a representative indication of potential soil contamination at the site and achieved the overlying objectives of the project. The registered locations of groundwater bores, between the site and Macquarie River, were inspected for potential sampling, however any previously installed groundwater extraction infrastructure was no longer present.
Sample Depth	Shallow soil samples were collected at each of the 22 locations, at a depth corresponding to soil most likely to have been impacted by off-site COPC sources (i.e., in the upper 15 cm and within the root zone). Sample locations were extended to a depth of 0.4 m below ground level (mBGL) to visually assess for the presence of fill or buried waste, and additional samples collected as considered necessary.
Methodology	Soil samples were collected directly by hand auger or trowel. All samples were placed in clean, laboratory-supplied acid washed solvent rinsed glass jars with Teflon® lids.
Sample Preservation	Samples were stored on ice in a chilled container whilst on-site and in transit to the laboratory.
Decontamination	Re-usable equipment was decontaminated before each use using decontamination solution, then rinsed in potable water.

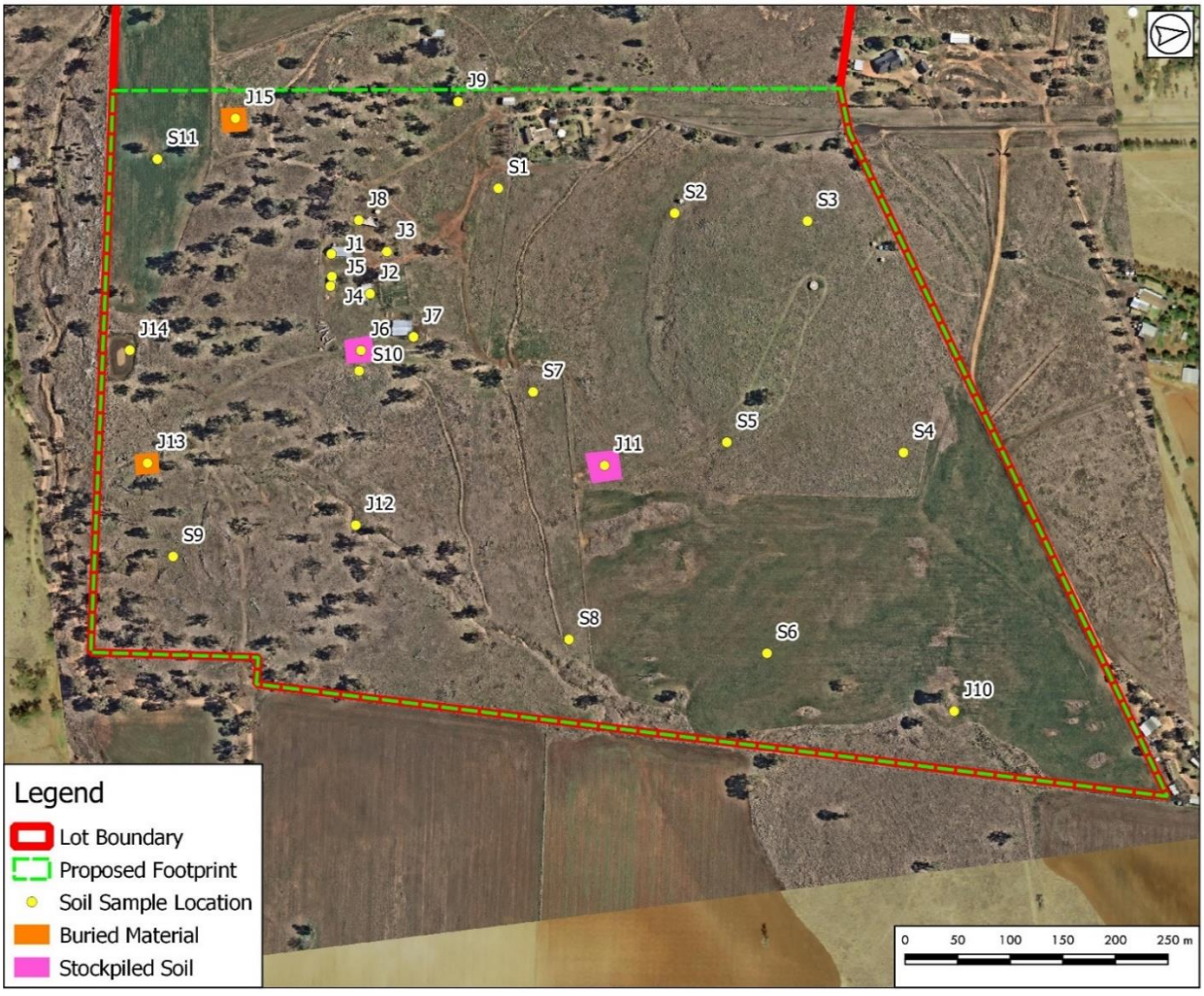
Activity / Item	Details
	Dedicated single-use items were not decontaminated, but were disposed following use. Nitrile gloves used for sampling were changed between each sample.

5.4.2 SAMPLE ANALYSIS

23 samples of soil where potential for COPC impacts to be present were submitted to ALS Laboratories (ALS) for analysis. ALS is NATA (National Association of Testing Authorities) certified for the analyses performed.

Soil samples were analysed COPC described in **Section 5.1.2**, as appropriate.

Figure 4 – Investigation Sampling Locations



5.5 Soil Analytical Results

Soil descriptions were logged as a dark red to dark brown clay loam (firm) of low/medium plasticity. Evidence of buried waste was apparent during collection of soil samples at locations J13 and J15. Stockpiled material was present at locations J6 and J11, and potential chemical staining of soil was observed at location J5.

Soil analytical results are presented in the laboratory certificates in **Appendix D** and summarised in **Table 1** (attached). Results were compared to human health and ecological criteria adopted from the Amended ASC NEPM (NEPC, 2013), as detailed in **Section 5.3**.

Findings of the soil investigation indicated no exceedances of residential HSL/HIL criteria. Exceedances of EIL/ESL criteria were recorded as follows:

- A copper concentration was recorded at above the EIL of 60 mg/kg at sample location J11 (62 mg/kg).
- Zinc concentrations were recorded at above the EIL of 180 mg/kg at sample locations J1, J2, J5 and J9, at concentrations ranging from 276 mg/kg (J2) to 1610 mg/kg (J5).
- Chromium concentrations were recorded at above the EIL of 190 mg/kg at sample locations J5 (254 mg/kg) and J11 (238 mg/kg).

Premise notes the conservative nature of the adopted EILs, which correspond to the *'added contaminant limit'* (ACL), i.e., the concentration above background which may warrant further investigation.

5.6 Quality of Analytical Data

5.6.1 OUTLINE

Analytical data validation is the process of assessing whether data are in compliance with method requirements and project specifications. The primary objectives of this process are to ensure that data of known quality are reported, and to identify if the data can be used to fulfil the overall project objectives.

The adopted data validation process is based on guidance documents published by the United States Environmental Protection Agency (USEPA) and the National Environment Protection Council. These include the following guidelines:

- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 540-R-2017-001, dated January 2017);
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (EPA 540-R-2017-002, dated January 2017); and
- NEPC (2013), National Environment Protection (Assessment of Site Contamination) Measure, 1999, Guideline on Investigation Levels for Soil and Groundwater.

The process involves the checking of analytical procedure compliance and the assessment of the accuracy and precision of analytical data from a range of quality control measurements, generated from both field sampling and analytical programs.

5.6.2 QA/QC ASSESSMENT

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

- Preservation and storage of samples upon collection and during transport to the laboratory;
- Holding times;
- Use of appropriate analytical procedures;
- Required limit of reporting (LOR);
- Frequency of conducting quality control measurements;
- Laboratory blanks;
- Laboratory duplicates;

- Matrix spike / matrix spike duplicates (MS/MSDs);
- Surrogates (or System Monitoring Compounds); and
- The occurrence of apparently unusual or anomalous results, e.g. laboratory results that appear to be inconsistent with field observations or measurements.

Laboratory chain of custody (COC) documentation and analytical QA/QC reports are included in **Appendix E**.

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

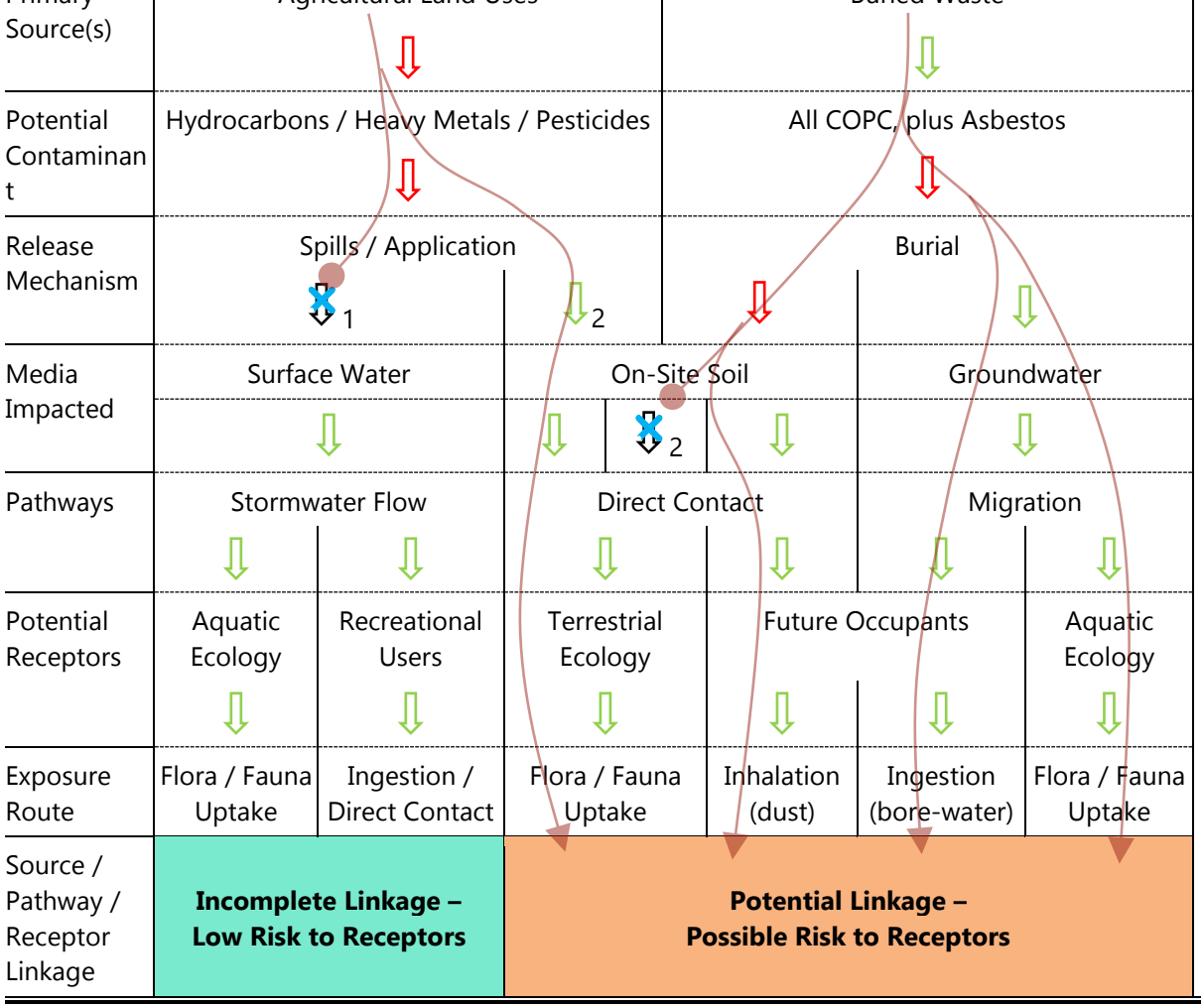
5.7 Discussion

5.7.1 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) for the site has been prepared to identify contamination sources and transport mechanisms, and exposure pathways to receptors. An 'incomplete' linkage between the source and the receptor (indicated by a '  ') indicates the risk to that receptor is considered to be negligible. Based on the current investigation findings, linkages in the CSM between sources and receptors are illustrated below.

Figure 5 – Conceptual Site Model

CSM Aspect	Comments
Primary Source(s)	Agricultural Land Uses; Buried Waste
Potential Contaminant	Hydrocarbons / Heavy Metals / Pesticides; All COPC, plus Asbestos
Release Mechanism	Spills / Application; Burial
Media Impacted	Surface Water; On-Site Soil; Groundwater
Pathways	Stormwater Flow; Direct Contact; Migration
Potential Receptors	Aquatic Ecology; Recreational Users; Terrestrial Ecology; Future Occupants; Aquatic Ecology
Exposure Route	Flora / Fauna Uptake; Ingestion / Direct Contact; Flora / Fauna Uptake; Inhalation (dust); Ingestion (bore-water); Flora / Fauna Uptake
Source / Pathway / Receptor Linkage	**Incomplete Linkage – Low Risk to Receptors**; **Potential Linkage – Possible Risk to Receptors**



Incomplete source / pathway / Receptor linkages identified in the CSM are explained below:

1 – Contaminant concentrations in soil at the site were not identified to be elevated. A risk of mobilisation to downgradient aquatic ecology or surface water bodies used for recreation is not considered to be present.

2 – Contaminant concentrations in soil at locations of buried waste were not identified to be elevated. A risk to the resident soil ecology from direct contact to buried waste is not considered to be present.

5.7.2 CHARACTERISATION OF RESIDUAL RISKS

Potentially complete linkages in the CSM are summarised below:

- Elevated concentrations of heavy metals in soil may present a localised risk to the resident soil ecology.
- Burial of waste material has been identified at two locations at the site. Potential exists for asbestos-containing material (ACM) to be present, which may present a risk to future site occupants encountering this material.
- Buried waste material has potential to generate leachate which can migrate to other receptors.
  - Future site occupants may construct groundwater bore(s) to supplement domestic water supply, presenting a potential risk to human health.
  - Depending on hydrogeological conditions, impacted groundwater may migrate and present a potential risk to ecological receptors.

5.7.3 SUMMARY

Concentrations of COPC above the adopted ecological criteria are not necessarily inferred to be associated with historic activities at the site, and may, in contrast, be indicative of background or baseline conditions.

Potential risks to human health may be present in the investigation area based on the identified presence of buried waste (locations J13 and J15). The site inspection could not delineate the depth of impact, however based on other examples of burying waste in rural settings, impacts deeper than 1 m are generally not common. Buried waste may contain ACM, potentially in the form of fragments or respirable fibres.

Within the investigation area, the potential risk to ecology posed by copper, chromium and zinc impacted soil is considered to be limited to the resident soil ecology. Due to the disturbed nature of the site, and the absence of stressed vegetation, the potential for impact from this identified risk is considered to be low.

The coverage provided by the systematic / judgemental sampling pattern from across the site is considered to have sufficiently delineated lateral impacts.

6. CONCLUSIONS

6.1 Summary

Premise make the following conclusions regarding the potential for land contamination at the site, based on a desktop review of available information, a review of historical records, site walkover reconnaissance, and analytical results of collected samples.

- The area comprising the site, consisting of a portion of Lot 13 in DP 258406 (**Figure 2**) appears to have predominantly been historically utilised for grazing or other low-intensity agricultural uses. Farm homestead and shed structures exist within the investigation area.
- Based on analytical results of samples collected from the soil investigation and consideration of routes of exposure by receptors (current or future) to potential contamination sources (refer to CSM, **Figure 5**), potential exists for risks to human health and/or ecology within the investigation area.
- Potentially complete linkages in the CSM (source – pathway – receptor) have been identified. The following items were considered to be of significance in the context of this investigation:
  - Elevated concentrations of heavy metals in soil may present a localised risk to the resident soil ecology.
  - Burial of waste material has been identified at two locations at the site. Potential exists for asbestos-containing material (ACM) to be present, which may present a risk to future site occupants encountering this material.
  - Buried waste material has potential to generate leachate which can migrate to other receptors. This may include future site occupants (constructing and operating groundwater bores) or ecological receptors exhibiting hydrogeological connectivity to the site.
- With the exceptions of potential soil impacts from buried waste, there is little evidence of historic land uses to have caused impacts within the investigation area that may present a risk to human health.
- Based on the nature and extent of COPC being identified within the investigation area, Premise considers that the site can be made suitable for future residential land use with appropriate management of impacted soil material prior to future additional residential occupation of the site.

6.2 Recommendations

As a result of potentially complete source-pathway-receptor linkages in the CSM, the following works are recommended as measures to further characterise and mitigate the identified risks to human health and/or the environment:

- In the short-term, characterise areas of historic waste burial, to establish the extent and nature of filling.
- Consider necessity and options for management of areas where buried waste has been identified (J13 and J15), in conjunction with areas of heavy metal impacted soil (J5). Management options may include containment within a dedicated waste cell, or off-site disposal to an appropriately licensed waste facility.
- If asbestos impacts in soil are identified for removal from the site, the process is to be managed (handling, transport and disposal) by either a class A for friable or class B for bonded licensed removalist. SafeWork NSW and other relevant authorities will need to be notified as appropriate throughout the removal and disposal process. Prior to removal, material will require classification in accordance with the NSW Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA, 2014)

- An appropriately licenced or suitably experienced person is required to complete a clearance inspection at the conclusion of asbestos removal works, if necessary.
- Given the disturbed nature of the site, any subsequent construction works are to be conducted with adherence to an 'unexpected finds protocol' (UFP), prepared as a component of a construction environmental management plan (CEMP). The UFP would identify triggers for indicators of potential contamination and specify actions to be taken in the event of such indicators being encountered during construction works.

DATA TABLES

CERTIFICATE OF ANALYSIS

Work Order	: **ES2329175**	Page	: 1 of 26
Client	: **PREMISE NSW Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: B STUART	Contact	: Customer Services ES
Address	: 154 Peisley St, Orange 2800	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 123050 RRD	Date Samples Received	: 29-Aug-2023 09:30
Order number	: ----	Date Analysis Commenced	: 31-Aug-2023
C-O-C number	: ----	Issue Date	: 06-Sep-2023 09:50
Sampler	: B. Searl		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 30		
No. of samples analysed	: 23		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Evie Sidarta	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP202 :Particular samples required dilution due to sample matrix. LOR values have been adjusted accordingly.
- EP202: Poor matrix spike recovery has been detected due to sample matrix interferences.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	S1 Sample ID: SS_1	S3 Sample ID: SS_3	S5 Sample ID: SS_5	S8 Sample ID: SS_8	S9 Sample ID: SS_9
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-001	ES2329175-003	ES2329175-005	ES2329175-008	ES2329175-009
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**13.9**	**24.8**	**7.9**	**13.2**	**6.7**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	----	----	<5	----	----
Barium	7440-39-3	10	mg/kg	----	----	**220**	----	----
Beryllium	7440-41-7	1	mg/kg	----	----	<1	----	----
Boron	7440-42-8	50	mg/kg	----	----	<50	----	----
Cadmium	7440-43-9	1	mg/kg	----	----	<1	----	----
Chromium	7440-47-3	2	mg/kg	----	----	**122**	----	----
Cobalt	7440-48-4	2	mg/kg	----	----	**34**	----	----
Copper	7440-50-8	5	mg/kg	----	----	**41**	----	----
Lead	7439-92-1	5	mg/kg	----	----	**6**	----	----
Manganese	7439-96-5	5	mg/kg	----	----	**1120**	----	----
Nickel	7440-02-0	2	mg/kg	----	----	**100**	----	----
Selenium	7782-49-2	5	mg/kg	----	----	<5	----	----
Vanadium	7440-62-2	5	mg/kg	----	----	**122**	----	----
Zinc	7440-66-6	5	mg/kg	----	----	**59**	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S1 Sample ID: SS_1	S3 Sample ID: SS_3	S5 Sample ID: SS_5	S8 Sample ID: SS_8	S9 Sample ID: SS_9
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-001	ES2329175-003	ES2329175-005	ES2329175-008	ES2329175-009
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4-DB	94-82-6	0.02	mg/kg		----	<0.02	<0.04	<0.02	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S1 Sample ID: SS_1	S3 Sample ID: SS_3	S5 Sample ID: SS_5	S8 Sample ID: SS_8	S9 Sample ID: SS_9
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-001	ES2329175-003	ES2329175-005	ES2329175-008	ES2329175-009
					Result	Result	Result	Result	Result
EP202A: Phenoxyacetic Acid Herbicides by LCMS - Continued									
Dicamba	1918-00-9	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Mecoprop	93-65-2	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
MCPA	94-74-6	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4-DP	120-36-5	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4-D	94-75-7	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Triclopyr	55335-06-3	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4.5-T	93-76-5	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
MCPB	94-81-5	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Picloram	1918-02-1	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Clopyralid	1702-17-6	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Fluroxypyr	69377-81-7	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**77.4**	**75.9**	**84.0**	**94.2**	**104**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**73.2**	**74.5**	**86.9**	**106**	**104**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		----	**53.3**	**66.9**	**65.6**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**8.0**	**9.8**	**17.9**	**12.4**	**10.2**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	----	----	<5	<5	<5
Barium	7440-39-3	10	mg/kg	----	----	**90**	**90**	**120**
Beryllium	7440-41-7	1	mg/kg	----	----	**1**	<1	<1
Boron	7440-42-8	50	mg/kg	----	----	<50	<50	<50
Cadmium	7440-43-9	1	mg/kg	----	----	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	----	----	**86**	**173**	**76**
Cobalt	7440-48-4	2	mg/kg	----	----	**31**	**23**	**30**
Copper	7440-50-8	5	mg/kg	----	----	**28**	**25**	**29**
Lead	7439-92-1	5	mg/kg	----	----	**11**	**12**	**13**
Manganese	7439-96-5	5	mg/kg	----	----	**335**	**537**	**1040**
Nickel	7440-02-0	2	mg/kg	----	----	**52**	**52**	**40**
Selenium	7782-49-2	5	mg/kg	----	----	<5	<5	<5
Vanadium	7440-62-2	5	mg/kg	----	----	**91**	**122**	**81**
Zinc	7440-66-6	5	mg/kg	----	----	**288**	**276**	**63**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	----	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		----	----	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		----	----	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		----	----	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		----	----	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		----	----	<50	<50	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		----	----	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		----	----	<0.2	<0.2	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		----	----	<1	<1	<1
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.02	<0.02	----	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.02	<0.02	----	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.02	<0.02	----	----	----
MCPA	94-74-6	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.02	<0.02	----	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.02	<0.02	----	----	----
MCPB	94-81-5	0.02	mg/kg		<0.02	<0.02	----	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.02	<0.02	----	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.02	<0.02	----	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.02	<0.02	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**104**	**76.3**	**89.4**	**113**	**109**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**108**	**78.6**	**85.0**	**119**	**108**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	**83.9**	**86.4**	**87.3**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	**90.1**	**96.3**	**87.5**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	**69.1**	**54.7**	**51.8**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	**95.2**	**102**	**94.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%		**----**	**----**	**98.7**	**92.8**	**90.6**
4-Terphenyl-d14	1718-51-0	0.5	%		**----**	**----**	**105**	**101**	**100**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**----**	**----**	**85.1**	**92.8**	**79.1**
Toluene-D8	2037-26-5	0.2	%		**----**	**----**	**91.8**	**92.7**	**78.8**
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**----**	**73.0**	**101**	**84.0**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		**74.1**	**57.9**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**8.8**	**14.0**	**9.2**	**15.2**	**9.9**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	**29**	<5
Barium	7440-39-3	10	mg/kg	**340**	**310**	**80**	**70**	**80**
Beryllium	7440-41-7	1	mg/kg	<1	**2**	<1	<1	<1
Boron	7440-42-8	50	mg/kg	<50	<50	<50	<50	<50
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	**115**	**294**	**114**	**163**	**26**
Cobalt	7440-48-4	2	mg/kg	**64**	**70**	**18**	**25**	**10**
Copper	7440-50-8	5	mg/kg	**29**	**41**	**16**	**31**	**9**
Lead	7439-92-1	5	mg/kg	**15**	**29**	**8**	**10**	**6**
Manganese	7439-96-5	5	mg/kg	**1520**	**1440**	**451**	**370**	**405**
Nickel	7440-02-0	2	mg/kg	**69**	**89**	**35**	**63**	**15**
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Vanadium	7440-62-2	5	mg/kg	**103**	**137**	**66**	**135**	**28**
Zinc	7440-66-6	5	mg/kg	**62**	**1610**	**100**	**94**	**84**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Endosulfan (sum)**	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	<50	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.04	----	<0.02	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.04	----	<0.02	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.04	----	<0.02	----	----
MCPA	94-74-6	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.04	----	<0.02	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.04	----	<0.02	----	----
MCPB	94-81-5	0.02	mg/kg		<0.04	----	<0.02	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.04	----	<0.02	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.04	----	<0.02	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.04	----	<0.02	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**91.4**	**81.0**	**79.0**	**107**	**92.9**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**75.3**	**71.8**	**80.7**	**107**	**91.1**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**82.7**	**95.0**	**84.7**	**89.8**	**96.7**
2-Chlorophenol-D4	93951-73-6	0.5	%		**89.2**	**80.6**	**93.2**	**90.5**	**88.4**
2.4.6-Tribromophenol	118-79-6	0.5	%		**52.6**	**52.5**	**50.2**	**50.2**	**50.1**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**94.9**	**101**	**98.2**	**98.1**	**99.9**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%		**95.8**	**96.1**	**93.7**	**92.9**	**88.3**
4-Terphenyl-d14	1718-51-0	0.5	%		**105**	**104**	**102**	**102**	**100**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**78.3**	**72.0**	**89.8**	**84.5**	**90.5**
Toluene-D8	2037-26-5	0.2	%		**75.3**	**69.7**	**87.9**	**75.1**	**88.9**
4-Bromofluorobenzene	460-00-4	0.2	%		**82.0**	**76.4**	**93.4**	**86.4**	**93.8**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		**66.6**	**----**	**71.7**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	13.3	19.7	13.7	8.5	18.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Barium	7440-39-3	10	mg/kg	250	350	80	270	230
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Boron	7440-42-8	50	mg/kg	<50	<50	<50	<50	<50
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	2	<1
Chromium	7440-47-3	2	mg/kg	72	108	238	131	92
Cobalt	7440-48-4	2	mg/kg	26	50	20	48	32
Copper	7440-50-8	5	mg/kg	33	48	62	42	47
Lead	7439-92-1	5	mg/kg	13	<5	<5	6	13
Manganese	7439-96-5	5	mg/kg	1220	1670	380	1640	904
Nickel	7440-02-0	2	mg/kg	47	129	120	112	87
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Vanadium	7440-62-2	5	mg/kg	68	156	194	131	102
Zinc	7440-66-6	5	mg/kg	473	70	43	76	98
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		**100**	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		**100**	<50	<50	<50	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	<50	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		----	----	<0.02	----	----
2.4-DB	94-82-6	0.02	mg/kg		----	----	<0.02	----	----
Dicamba	1918-00-9	0.02	mg/kg		----	----	<0.02	----	----
Mecoprop	93-65-2	0.02	mg/kg		----	----	<0.02	----	----
MCPA	94-74-6	0.02	mg/kg		----	----	<0.02	----	----
2.4-DP	120-36-5	0.02	mg/kg		----	----	<0.02	----	----
2.4-D	94-75-7	0.02	mg/kg		----	----	<0.02	----	----
Triclopyr	55335-06-3	0.02	mg/kg		----	----	<0.02	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		----	----	<0.02	----	----
2.4.5-T	93-76-5	0.02	mg/kg		----	----	<0.02	----	----
MCPB	94-81-5	0.02	mg/kg		----	----	<0.02	----	----
Picloram	1918-02-1	0.02	mg/kg		----	----	<0.02	----	----
Clopyralid	1702-17-6	0.02	mg/kg		----	----	<0.02	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		----	----	<0.02	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**103**	**93.0**	**92.9**	**109**	**102**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**99.6**	**88.6**	**90.0**	**98.8**	**102**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**102**	**94.7**	**83.9**	**98.5**	**91.1**
2-Chlorophenol-D4	93951-73-6	0.5	%		**98.1**	**103**	**90.8**	**91.8**	**91.2**
2.4.6-Tribromophenol	118-79-6	0.5	%		**53.9**	**50.0**	**48.1**	**50.4**	**50.6**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**96.2**	**99.8**	**101**	**99.1**	**102**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%		**93.6**	**90.9**	**93.8**	**91.1**	**93.3**
4-Terphenyl-d14	1718-51-0	0.5	%		**104**	**104**	**106**	**104**	**106**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**83.4**	**79.4**	**76.3**	**71.1**	**75.1**
Toluene-D8	2037-26-5	0.2	%		**83.8**	**78.9**	**75.9**	**68.2**	**75.4**
4-Bromofluorobenzene	460-00-4	0.2	%		**89.2**	**83.5**	**83.8**	**80.3**	**84.0**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		**----**	**----**	**58.9**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**27.4**	**7.8**	**13.4**	**----**	**----**
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	**9**	**----**	**----**
Barium	7440-39-3	10	mg/kg		**260**	**30**	**40**	**----**	**----**
Beryllium	7440-41-7	1	mg/kg		**1**	<1	<1	**----**	**----**
Boron	7440-42-8	50	mg/kg		<50	<50	<50	**----**	**----**
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	**----**	**----**
Chromium	7440-47-3	2	mg/kg		**106**	**24**	**155**	**----**	**----**
Cobalt	7440-48-4	2	mg/kg		**29**	**10**	**3**	**----**	**----**
Copper	7440-50-8	5	mg/kg		**59**	**10**	**42**	**----**	**----**
Lead	7439-92-1	5	mg/kg		**10**	**7**	<5	**----**	**----**
Manganese	7439-96-5	5	mg/kg		**591**	**73**	**41**	**----**	**----**
Nickel	7440-02-0	2	mg/kg		**97**	**16**	**43**	**----**	**----**
Selenium	7782-49-2	5	mg/kg		<5	<5	<5	**----**	**----**
Vanadium	7440-62-2	5	mg/kg		**116**	**32**	**152**	**----**	**----**
Zinc	7440-66-6	5	mg/kg		**100**	**17**	**12**	**----**	**----**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	**----**	**----**
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	----	----	----
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.04	<0.02	----	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.04	<0.02	----	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.04	<0.02	----	----	----
MCPA	94-74-6	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.04	<0.02	----	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.04	<0.02	----	----	----
MCPB	94-81-5	0.02	mg/kg		<0.04	<0.02	----	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.04	<0.02	----	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.04	<0.02	----	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.04	<0.02	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**128**	**82.8**	**111**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**123**	**79.1**	**105**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**92.1**	**83.8**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**99.6**	**89.0**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**50.7**	**54.5**	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**104**	**93.8**	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**89.7**	**94.1**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit	ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
				Result	Result	Result	----	----
EP075(SIM)T: PAH Surrogates - Continued								
4-Terphenyl-d14	1718-51-0	0.5	%	**103**	**109**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**78.5**	**81.7**	----	----	----
Toluene-D8	2037-26-5	0.2	%	**77.5**	**79.2**	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	**78.7**	**84.6**	----	----	----
EP202S: Phenoxyacetic Acid Herbicide Surrogate								
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%	**98.7**	**68.2**	----	----	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131
EP202S: Phenoxyacetic Acid Herbicide Surrogate			
2.4-Dichlorophenyl Acetic Acid	19719-28-9	45	139

QUALITY CONTROL REPORT

Work Order	: **ES2329175**	Page	: 1 of 17
Client	: **PREMISE NSW Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: B STUART	Contact	: Customer Services ES
Address	: 154 Peisley St, Orange 2800	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 123050 RRD	Date Samples Received	: 29-Aug-2023
Order number	: ----	Date Analysis Commenced	: 31-Aug-2023
C-O-C number	: ----	Issue Date	: 06-Sep-2023
Sampler	: B. Searl		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 30		
No. of samples analysed	: 23		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Evie Sidarta	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5273219)									
ES2329150-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	20	30	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	8	14	49.1	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	5	5	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	15	126	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	7	9	33.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	10	22	76.5	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	58	58	0.0	0% - 50%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	17	19	13.2	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	11	16	38.5	No Limit
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
ES2329175-018	J7 Sample ID: JS_7	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	70	60	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	163	163	0.0	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	25	19	26.5	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	63	71	11.8	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	29	15	63.3	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	31	33	5.4	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	10	8	15.7	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	370	322	13.9	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5273219) - continued									
ES2329175-018	J7 Sample ID: JS_7	EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	135	122	9.9	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	94	90	5.3	0% - 50%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 5274223)									
EP2311633-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	50	50	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	47	48	0.0	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	26	27	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	12	12	0.0	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	44	43	2.4	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	18	18	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	101	106	4.5	0% - 20%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
ES2329175-005	S5 Sample ID: SS_5	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	220	210	0.0	0% - 20%
		EG005T: Chromium	7440-47-3	2	mg/kg	122	118	3.2	0% - 20%
		EG005T: Cobalt	7440-48-4	2	mg/kg	34	32	5.8	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	100	87	13.5	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	41	37	8.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	6	6	0.0	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	1120	1040	7.3	0% - 20%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	122	117	4.0	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	59	57	3.5	0% - 50%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5273223)									
ES2329150-004	Anonymous	EA055: Moisture Content	----	0.1	%	9.0	8.5	6.2	No Limit
ES2329175-021	J10 Sample ID: JS_10	EA055: Moisture Content	----	0.1	%	19.7	16.9	15.3	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5274226)									
EP2311633-003	Anonymous	EA055: Moisture Content	----	0.1	%	16.4	13.6	18.9	0% - 50%
ES2329237-003	Anonymous	EA055: Moisture Content	----	0.1	%	9.2	9.0	2.8	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5275263)									
ES2328907-024	Anonymous	EA055: Moisture Content	----	0.1	%	15.0	15.0	0.0	0% - 20%
ES2329206-026	Anonymous	EA055: Moisture Content	----	0.1	%	16.7	17.1	2.4	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5273220)									
ES2329150-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2329175-018	J7 Sample ID: JS_7	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 5274222)									
EP2311633-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
ES2329175-005	S5 Sample ID: SS_5	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5269105)									
ES2329175-018	J7 Sample ID: JS_7	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2329175-012	J1 Sample ID: JS_1	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5269105) - continued									
ES2329175-012	J1 Sample ID: JS_1	EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 5270501)									
ES2329264-001	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5269105)									
ES2329175-018	J7 Sample ID: JS_7	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5269105) - continued									
ES2329175-018	J7 Sample ID: JS_7	EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES2329175-012	J1 Sample ID: JS_1	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5270501)									
ES2329264-001	Anonymous	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 5270501) - continued									
ES2329264-001	Anonymous	EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5269107)									
ES2329175-018	J7 Sample ID: JS_7	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES2329175-012	J1 Sample ID: JS_1	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 5269107) - continued									
ES2329175-012	J1 Sample ID: JS_1	EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5269106)									
ES2329175-018	J7 Sample ID: JS_7	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2329175-012	J1 Sample ID: JS_1	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 5270054)									
ES2329175-012	J1 Sample ID: JS_1	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES2329175-022	J11 Sample ID: JS_11	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5269106)									
ES2329175-018	J7 Sample ID: JS_7	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES2329175-012	J1 Sample ID: JS_1	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 5270054)									
ES2329175-012	J1 Sample ID: JS_1	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
ES2329175-022	J11 Sample ID: JS_11	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080: BTEXN (QC Lot: 5270054)									
ES2329175-012	J1 Sample ID: JS_1	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080: BTEXN (QC Lot: 5270054) - continued									
ES2329175-012	J1 Sample ID: JS_1	EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
ES2329175-022	J11 Sample ID: JS_11	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QC Lot: 5269784)									
EM2315418-001	Anonymous	EP202: 4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-DB	94-82-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Dicamba	1918-00-9	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Mecoprop	93-65-2	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: MCPA	94-74-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-DP	120-36-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-D	94-75-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Triclopyr	55335-06-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4.5-T	93-76-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: MCPB	94-81-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Picloram	1918-02-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Clopyralid	1702-17-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Fluroxypyr	69377-81-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
ES2329175-015	J4 Sample ID: JS_4	EP202: 4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: 2.4-DB	94-82-6	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: Dicamba	1918-00-9	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: Mecoprop	93-65-2	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: MCPA	94-74-6	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: 2.4-DP	120-36-5	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: 2.4-D	94-75-7	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: Triclopyr	55335-06-3	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: 2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: 2.4.5-T	93-76-5	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: MCPB	94-81-5	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: Picloram	1918-02-1	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: Clopyralid	1702-17-6	0.02	mg/kg	<0.04	<0.04	0.0	No Limit
		EP202: Fluroxypyr	69377-81-7	0.02	mg/kg	<0.04	<0.04	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5273219)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	111	88.0	113
EG005T: Barium	7440-39-3	10	mg/kg	<10	90.5 mg/kg	114	65.0	136
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	0.5 mg/kg	130	70.0	130
EG005T: Boron	7440-42-8	50	mg/kg	<50	----	----	----	----
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	130	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	124	68.0	132
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	10.4 mg/kg	102	83.0	117
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	111	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	102	82.0	119
EG005T: Manganese	7439-96-5	5	mg/kg	<5	534 mg/kg	112	83.0	117
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	90.2	80.0	120
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	58.6 mg/kg	122	75.0	125
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	102	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5274223)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	121.1 mg/kg	107	88.0	113
EG005T: Barium	7440-39-3	10	mg/kg	<10	90.5 mg/kg	117	65.0	136
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	0.5 mg/kg	130	70.0	130
EG005T: Boron	7440-42-8	50	mg/kg	<50	----	----	----	----
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	0.74 mg/kg	115	70.0	130
EG005T: Chromium	7440-47-3	2	mg/kg	<2	19.6 mg/kg	120	68.0	132
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	10.4 mg/kg	104	83.0	117
EG005T: Copper	7440-50-8	5	mg/kg	<5	52.9 mg/kg	111	89.0	111
EG005T: Lead	7439-92-1	5	mg/kg	<5	60.8 mg/kg	119	82.0	119
EG005T: Manganese	7439-96-5	5	mg/kg	<5	534 mg/kg	114	83.0	117
EG005T: Nickel	7440-02-0	2	mg/kg	<2	15.3 mg/kg	106	80.0	120
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	58.6 mg/kg	121	75.0	125
EG005T: Zinc	7440-66-6	5	mg/kg	<5	139.3 mg/kg	106	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5273220)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5273220) - continued								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	124	70.0	125
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5274222)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.087 mg/kg	104	70.0	125
EP068A: Organochlorine Pesticides (OC) (QCLot: 5269105)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	81.5	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	82.8	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	87.5	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	86.7	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.9	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	86.7	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	91.0	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	86.9	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.4	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.0	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	84.9	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	83.9	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	85.8	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.4	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	82.5	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	95.3	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	102	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	107	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5270501)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.8	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	93.2	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	85.6	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	78.0	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	77.7	62.0	118

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 5270501) - continued								
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	78.3	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	77.9	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	88.0	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.6	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	92.4	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.3	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	80.4	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.7	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	84.0	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	80.7	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	76.8	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5269105)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	94.4	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	100	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	98.3	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	97.4	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	93.1	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	94.7	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	85.3	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	96.7	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.2	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	92.1	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	83.8	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	96.0	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	92.7	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.7	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	88.0	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	88.6	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	89.4	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5270501)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5270501) - continued								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	70.9	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	72.4	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	98.0	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	91.3	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	87.0	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	73.5	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	81.8	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	77.9	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	78.2	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	74.6	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	86.6	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	78.8	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.0	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	81.7	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	93.3	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	91.0	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	82.4	41.0	123
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5269107)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	91.6	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	92.5	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	101	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	91.8	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	107	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	103	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	100	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	101	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	106	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	100	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	101	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	103	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	99.3	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	105	61.0	121

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5269107) - continued								
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	101	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	102	63.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5269106)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	93.9	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	86.9	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	84.1	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5270054)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	92.0	72.2	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5269106)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	94.4	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	82.7	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	82.9	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5270054)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	86.6	72.4	133
EP080: BTEXN (QCLot: 5270054)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	85.9	76.0	124
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	84.7	78.5	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	85.4	77.4	121
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	85.0	78.2	121
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	86.7	81.3	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	84.4	78.8	122
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QCLot: 5269784)								
EP202: 4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg	<0.02	0.1 mg/kg	63.5	54.4	128
EP202: 2.4-DB	94-82-6	0.02	mg/kg	<0.02	0.1 mg/kg	64.4	45.5	130
EP202: Dicamba	1918-00-9	0.02	mg/kg	<0.02	0.1 mg/kg	75.9	51.7	135
EP202: Mecoprop	93-65-2	0.02	mg/kg	<0.02	0.1 mg/kg	64.7	60.0	130
EP202: MCPA	94-74-6	0.02	mg/kg	<0.02	0.1 mg/kg	65.4	56.8	131
EP202: 2.4-DP	120-36-5	0.02	mg/kg	<0.02	0.1 mg/kg	68.5	50.0	141
EP202: 2.4-D	94-75-7	0.02	mg/kg	<0.02	0.1 mg/kg	84.8	68.5	131
EP202: Triclopyr	55335-06-3	0.02	mg/kg	<0.02	0.1 mg/kg	64.8	50.8	141
EP202: 2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg	<0.02	0.1 mg/kg	61.8	40.8	126
EP202: 2.4.5-T	93-76-5	0.02	mg/kg	<0.02	0.1 mg/kg	72.4	57.4	139
EP202: MCPB	94-81-5	0.02	mg/kg	<0.02	0.1 mg/kg	64.4	38.9	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QCLot: 5269784) - continued								
EP202: Picloram	1918-02-1	0.02	mg/kg	<0.02	0.1 mg/kg	60.9	48.7	129
EP202: Clopyralid	1702-17-6	0.02	mg/kg	<0.02	0.1 mg/kg	55.6	49.4	106
EP202: Fluroxypyr	69377-81-7	0.02	mg/kg	<0.02	0.1 mg/kg	64.1	53.2	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5273219)							
ES2329150-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	104	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	100.0	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	106	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	96.2	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	105	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	107	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	106	66.0	133
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 5274223)							
EP2311633-001	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	102	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	101	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	107	68.0	132
		EG005T: Copper	7440-50-8	250 mg/kg	95.8	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	99.6	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	101	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	102	66.0	133
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5273220)							
ES2329150-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	88.5	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 5274222)							
EP2311633-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	95.3	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5269105)							
ES2329175-012	J1 Sample ID: JS_1	EP068: gamma-BHC	58-89-9	0.5 mg/kg	94.0	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	74.4	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	88.7	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	109	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	80.6	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 5269105) - continued							
ES2329175-012	J1 Sample ID: JS_1	EP068: 4.4`-DDT	50-29-3	2 mg/kg	89.2	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 5270501)							
ES2329264-001	Anonymous	EP068: gamma-BHC	58-89-9	0.5 mg/kg	93.6	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	82.9	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	93.6	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	91.1	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	96.2	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	81.0	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5269105)							
ES2329175-012	J1 Sample ID: JS_1	EP068: Diazinon	333-41-5	0.5 mg/kg	88.5	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	79.2	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	81.6	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	84.9	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	72.2	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 5270501)							
ES2329264-001	Anonymous	EP068: Diazinon	333-41-5	0.5 mg/kg	100	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	83.0	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	84.0	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	110	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	84.1	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 5269107)							
ES2329175-012	J1 Sample ID: JS_1	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	96.9	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	99.7	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5269106)							
ES2329175-012	J1 Sample ID: JS_1	EP071: C10 - C14 Fraction	----	480 mg/kg	112	73.0	137
		EP071: C15 - C28 Fraction	----	3100 mg/kg	117	53.0	131
		EP071: C29 - C36 Fraction	----	2060 mg/kg	# 135	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 5270054)							
ES2329175-012	J1 Sample ID: JS_1	EP080: C6 - C9 Fraction	----	32.5 mg/kg	76.1	60.4	142
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5269106)							
ES2329175-012	J1 Sample ID: JS_1	EP071: >C10 - C16 Fraction	----	860 mg/kg	113	73.0	137
		EP071: >C16 - C34 Fraction	----	4320 mg/kg	123	53.0	131
		EP071: >C34 - C40 Fraction	----	890 mg/kg	130	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 5270054)							
ES2329175-012	J1 Sample ID: JS_1	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	70.2	61.1	142
EP080: BTEXN (QCLot: 5270054)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080: BTEXN (QCLot: 5270054) - continued							
ES2329175-012	J1 Sample ID: JS_1	EP080: Benzene	71-43-2	2.5 mg/kg	73.1	62.1	122
		EP080: Toluene	108-88-3	2.5 mg/kg	74.6	66.6	119
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	75.7	67.4	123
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	73.4	66.4	121
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	78.5	70.7	121
		EP080: Naphthalene	91-20-3	2.5 mg/kg	69.5	61.1	115
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QCLot: 5269784)							
EM2315418-001	Anonymous	EP202: Mecoprop	93-65-2	0.1 mg/kg	# 53.8	60.0	140
		EP202: MCPA	94-74-6	0.1 mg/kg	# 51.6	57.0	143
		EP202: 2.4-D	94-75-7	0.1 mg/kg	# 49.8	68.0	139
		EP202: Triclopyr	55335-06-3	0.1 mg/kg	52.2	51.0	145
		EP202: 2.4.5-T	93-76-5	0.1 mg/kg	# 42.7	57.0	142
		EP202: Picloram	1918-02-1	0.1 mg/kg	80.5	49.0	138
		EP202: Clopyralid	1702-17-6	0.1 mg/kg	# 27.0	49.0	149

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2329175**	Page	: 1 of 9
Client	: **PREMISE NSW Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: B STUART	Telephone	: +61-2-8784 8555
Project	: 123050 RRD	Date Samples Received	: 29-Aug-2023
Site	: ----	Issue Date	: 06-Sep-2023
Sampler	: B. Searl	No. of samples received	: 30
Order number	: ----	No. of samples analysed	: 23

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP080/071: Total Petroleum Hydrocarbons	ES2329175--012	J1 Sample ID: JS_1	**C29 - C36 Fraction**	----	135 %	52.0-132%	**Recovery greater than upper data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**Mecoprop**	93-65-2	53.8 %	60.0-140%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**MCPA**	94-74-6	51.6 %	57.0-143%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**2.4-D**	94-75-7	49.8 %	68.0-139%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**2.4.5-T**	93-76-5	42.7 %	57.0-142%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**Clopyralid**	1702-17-6	27.0 %	49.0-149%	**Recovery less than lower data quality objective**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
J1 - Sample ID: JS_1,	J2 - Sample ID: JS_2,	**24-Aug-2023**	**----**	----	----	**01-Sep-2023**	07-Sep-2023	✓
J3 - Sample ID: JS_3,	J4 - Sample ID: JS_4,							
J5 - Sample ID: JS_5,	J6 - Sample ID: JS_6,							
J7 - Sample ID: JS_7,	J8 - Sample ID: JS_8,							
J9 - Sample ID: JS_9,	J10 - Sample ID: JS_10,							
J11 - Sample ID: JS_11,	J12 - Sample ID: JS_12,							
J13 - Sample ID: JS_13,	J14 - Sample ID: JS_14,							
J15 - Sample ID: JS_15,	J11_B - Sample ID: JS_11_B							
Soil Glass Jar - Unpreserved (EA055)								
S1 - Sample ID: SS_1,	S3 - Sample ID: SS_3,	**24-Aug-2023**	**----**	----	----	**04-Sep-2023**	07-Sep-2023	✓
S5 - Sample ID: SS_5,	S8 - Sample ID: SS_8,							
S9 - Sample ID: SS_9,	S10 - Sample ID: SS_10,							
S11 - Sample ID: SS_11								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**01-Sep-2023**	20-Feb-2024	✓	**04-Sep-2023**	20-Feb-2024	✓
Soil Glass Jar - Unpreserved (EG005T)							
S5 - Sample ID: SS_5	**24-Aug-2023**	**04-Sep-2023**	20-Feb-2024	✓	**04-Sep-2023**	20-Feb-2024	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**01-Sep-2023**	21-Sep-2023	✓	**05-Sep-2023**	21-Sep-2023	✓
Soil Glass Jar - Unpreserved (EG035T)							
S5 - Sample ID: SS_5	**24-Aug-2023**	**04-Sep-2023**	21-Sep-2023	✓	**05-Sep-2023**	21-Sep-2023	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
S1 - Sample ID: SS_1, S3 - Sample ID: SS_3, S8 - Sample ID: SS_8, S9 - Sample ID: SS_9, S10 - Sample ID: SS_10, S11 - Sample ID: SS_11, J1 - Sample ID: JS_1, J2 - Sample ID: JS_2	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP068)							
S5 - Sample ID: SS_5, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**05-Sep-2023**	12-Oct-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068) S1 - Sample ID: SS_1, S3 - Sample ID: SS_3, S8 - Sample ID: SS_8, S9 - Sample ID: SS_9, S10 - Sample ID: SS_10, S11 - Sample ID: SS_11, J1 - Sample ID: JS_1, J2 - Sample ID: JS_2	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP068) S5 - Sample ID: SS_5, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**05-Sep-2023**	12-Oct-2023	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM)) J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP071) J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP080) J7 - Sample ID: JS_7, J15 - Sample ID: JS_15	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**02-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**04-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J1 - Sample ID: JS_1	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**05-Sep-2023**	07-Sep-2023	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP071) J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP080) J7 - Sample ID: JS_7, J15 - Sample ID: JS_15	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**02-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**04-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J1 - Sample ID: JS_1	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**05-Sep-2023**	07-Sep-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
J7 - Sample ID: JS_7, J15 - Sample ID: JS_15	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**02-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**04-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
J1 - Sample ID: JS_1	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**05-Sep-2023**	07-Sep-2023	✓
EP202A: Phenoxyacetic Acid Herbicides by LCMS							
Soil Glass Jar - Unpreserved (EP202)							
S3 - Sample ID: SS_3, S5 - Sample ID: SS_5, S8 - Sample ID: SS_8, S10 - Sample ID: SS_10, S11 - Sample ID: SS_11, J4 - Sample ID: JS_4, J6 - Sample ID: JS_6, J11 - Sample ID: JS_11, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**01-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	11-Oct-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	6	59	**10.17**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	30	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	SOIL	In house: LCMS (Electrospray in negative mode). Residues of acid herbicides are extracted from soil samples under the alkaline condition. An aliquot of the alkaline aqueous phase is taken and acidified before a SPE cleanup. After eluting off from the SPE cartridge, residues of acid herbicides are dissolved in HPLC mobile phase prior to instrument analysis.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Extraction for Phenoxy Acid Herbicides in Soils.	EP202-PR	SOIL	In-House: Alkaline extract followed by SPE clean up of acidified portion of the sample extract.
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.

Preparation Methods	*Method*	*Matrix*	*Method Descriptions*
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

APPENDIX A

REGISTERED GROUNDWATER BORE RECORDS

CHAIN OF CUSTODY

ALS Environmental

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com
☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5/585 Maitland Rd Mayfield West NSW 2304 Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com
☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townsville.environmental@alsglobal.com
☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: Premise Australia	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g.. Ultra Trace Organics)	☑ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Orange NSW		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 123050 RRD	ALS QUOTE NO.: EN/222/21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER:		COC: ① 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: B. Stuart	CONTACT PH: 0418 607 830	OF: 1 2 ③ 4 5 6 7	Other comment:

SAMPLER: B. Searl	SAMPLER MOBILE:	RELINQUISHED BY: PREMISE	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 28/8/2023, 14:00	DATE/TIME: 29/8/23 11:50	DATE/TIME:	DATE/TIME:
Email Reports to (will default to PM if no other addresses are listed):					
Email Invoice to (will default to PM if no other addresses are listed):					

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	S-12	S-3	EP202	S-7	EA200				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	S1	24/08/2023	S	JAR	1	X								
2	S2	24/08/2023	S	JAR	1									HOLD
3	S3	24/08/2023	S	JAR	1	X		X						
4	S4	24/08/2023	S	JAR	1									HOLD
5	S5	24/08/2023	S	JAR	1	X	X	X						
6	S6	24/08/2023	S	JAR	1									HOLD
7	S7	24/08/2023	S	JAR	1									HOLD
8	S8	24/08/2023	S	JAR	1	X		X						
9	S9	24/08/2023	S	JAR	1	X								
10	S10	24/08/2023	S	JAR	1	X		X						
11	S11	24/08/2023	S	JAR	1	X		X						
12	J1	24/08/2023	S	JAR	1	X	X		X					
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Pre Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

Environmental Division Sydney
Work Order Reference
ES2329175

Telephone : + 61-2-8784 8555

CHAIN OF CUSTODY

ALS Environmental

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
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☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: Premise Australia	TURNAROUND REQUIREMENTS : ☑ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE: Orange NSW	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes No N/A
PROJECT: 123050 RRD	ALS QUOTE NO.: EN/222/21	Free ice / frozen ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER:	COC SEQUENCE NUMBER (Circle) COC: 1 ② 3 4 5 6 7	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER: B. Stuart	CONTACT PH: 0418 607 830 OF: 1 2 ③ 4 5 6 7	Other comment:	
SAMPLER: B. Searl	SAMPLER MOBILE:	RELINQUISHED BY: PREMISE	RECEIVED BY: [signature]
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 28/8/2023, 14:00	DATE/TIME: 29/8/23 11:50
Email Reports to (will default to PM if no other addresses are listed):		RELINQUISHED BY:	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed):		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	S-12	S-3	EP202	S-7	EA200				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
13	J2	24/08/2023	S	JAR	1	X	X		X	X				
14	J3	24/08/2023	S	JAR	1	X	X		X					
15	J4	24/08/2023	S	JAR	1	X	X	X	X					
16	J5	24/08/2023	S	JAR	1	X	X		X					
17	J6	24/08/2023	S	JAR	1	X	X	X	X	X				
18	J7	24/08/2023	S	JAR	1	X	X		X					
19	J8	24/08/2023	S	JAR	1	X	X		X	X				
20	J9	24/08/2023	S	JAR	1	X	X		X	X				
4	J10	24/08/2023	S	JAR	1	X	X		X					
12	J11	24/08/2023	S	JAR	1	X	X	X	X	X				
23	J12	24/08/2023	S	JAR	1	X	X		X					
24	J13	24/08/2023	S	JAR	1	X	X		X	X				
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY

ALS Environmental

ALS Laboratory: please tick →

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☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
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☐NEWCASTLE 5/585 Maitland Rd Mayfield West NSW 2304 Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com
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☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: Premise Australia	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☑ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Orange NSW		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 123050 RRD	ALS QUOTE NO.: EN/222/21	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER:		COC: 1 2 ③ 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: B. Stuart	CONTACT PH: 0418 607 830	OF: 1 2 ③ 4 5 6 7	Other comment:
SAMPLER: B. Searl	SAMPLER MOBILE:	RELINQUISHED BY: PREMISE	RECEIVED BY: FAST
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default):	DATE/TIME: 28/8/2023, 14:00	DATE/TIME: 29/8/23 11:50
Email Reports to (will default to PM if no other addresses are listed):		RELINQUISHED BY:	RECEIVED BY:
Email Invoice to (will default to PM if no other addresses are listed):		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED Including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	S-12	S-3	EP202	S-7	EA200				Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
25	J14	24/08/2023	S	JAR	1	X	X	X	X					
26	J15	24/08/2023	S	JAR	1	X	X	X	X	X				
27	J8_B	24/08/2023	S	JAR	1									HOLD
28	J5_B	24/08/2023	S	JAR	1									HOLD
29	J7_B	24/08/2023	S	JAR	1									HOLD
30	J11_B	24/08/2023	S	JAR	1	X	X							
				TOTAL		23	17	10	15	7				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

WaterNSW
Work Summary

GW008211

Licence: 80WA718899 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Abandoned
Construct.Method: Cable Tool
Owner Type: Private

Commenced Date:
Completion Date: 01/12/1950

Final Depth: 19.80 m
Drilled Depth: 19.80 m

Contractor Name: (None)
Driller:
Assistant Driller:

Property: ROCKY NSW
GWMA: -
GW Zone: -

Standing Water Level (m):
Salinity Description: 0-500 ppm
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	LINCOLN	WARRIE	9
Licensed:	LINCOLN	WARRIE	Whole Lot //

Region: 80 - Macquarie-Western
River Basin: 421 - MACQUARIE RIVER
Area/District:

CMA Map: 8633-3N
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6419671.000
Easting: 654071.000

Latitude: 32°20'57.4"S
Longitude: 148°38'14.2"E

GS Map: -

MGA Zone: 55

Coordinate Source: GD.,ACC.MAP

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	1	Casing	Threaded Steel	-0.50	18.00	152			
1	1	Opening	Screen	18.00	19.80	127		1	Copper Alloy, A: 1.65mm

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)
8.50	8.50	0.00	Unconsolidated	7.00		4.55			

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	8.53	8.53	Clay	Clay	
8.53	19.81	11.28	Gravel Water Supply	Gravel	

Remarks

10/02/2006: Nat Carling, 10-Feb-2006: Marked works as abandoned, due to GW802644 being drilled to replace this bore.

***** End of GW008211 *****

WaterNSW
Work Summary

GW802644

Licence: **Licence Status:**

Authorised Purpose(s):
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Replacement
Construct.Method: Rotary Mud
Owner Type: Private

Commenced Date: **Final Depth:** 20.00 m
Completion Date: 17/12/2005 **Drilled Depth:** 30.00 m

Contractor Name: Ross Robert SMITH
Driller: Ross Robert Smith
Assistant Driller:

Property: **Standing Water Level (m):** 9.970
GWMA: **Salinity Description:**
GW Zone: **Yield (L/s):** 2.500

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	LINCOLN	WARRIE	13//258406
Licensed:			

Region: 80 - Macquarie-Western **CMA Map:** 8633-3N
River Basin: 421 - MACQUARIE RIVER **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6419664.000 **Latitude:** 32°20'57.6"S
Elevation Source: Unknown **Easting:** 654083.000 **Longitude:** 148°38'14.7"E

GS Map: - **MGA Zone:** 55 **Coordinate Source:** GIS - Geogra

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	20.00	200			Rotary Mud
1		Hole	Hole	20.00	30.00	127			Rotary Mud
1		Annulus	Waterworn/Rounded	0.00	20.00	200	168		Graded
1	1	Casing	Pvc Class 9	0.00	18.00	168	156		Seated on Bottom, Glued
1	1	Opening	Slots - Horizontal	12.00	18.00	168		0	Mechanically Slotted, PVC Class 9, Glued, SL: 50.0mm, A: 1.00mm
1	1	Opening	Screen - Wedge Wire	18.00	20.00	168		0	Stainless Steel 304, Packer, A: 0.80mm

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)
12.00	20.00	8.00	Unknown	9.97	10.60	2.50		06:00:00	

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.00	1.00	Topsoil	Topsoil	
1.00	8.50	7.50	Clay, brown	Clay	
8.50	12.00	3.50	Gravel, dry	Gravel	
12.00	15.00	3.00	Gravel, clean	Gravel	
15.00	18.00	3.00	Sand, fine & Gravel	Sand	
18.00	20.00	2.00	Gravel	Gravel	
20.00	30.00	10.00	Shale, grey	Shale	

Remarks

17/12/2005: Form A Remarks:
Nat Carling, 10-Feb-2006: Coordinates based on location map provided by driller.

***** End of GW802644 *****

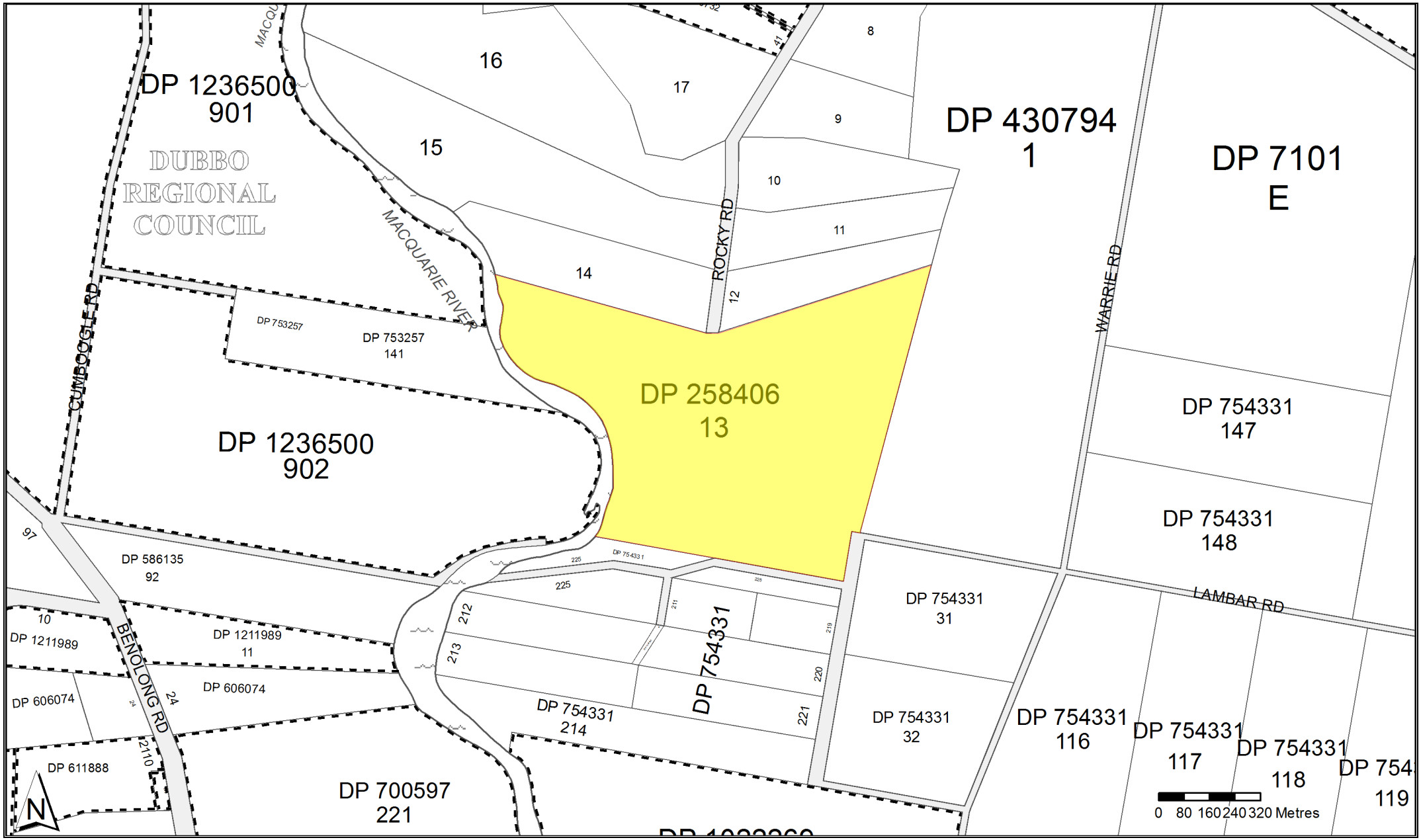
APPENDIX B

TITLE RECORDS

Cadastral Records Enquiry Report : Lot 13 DP 258406

Ref : 20L ROCKY RD DUBBO 2830

Locality : DUBBO
Parish : WARRIE
LGA : DUBBO REGIONAL
County : LINCOLN



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

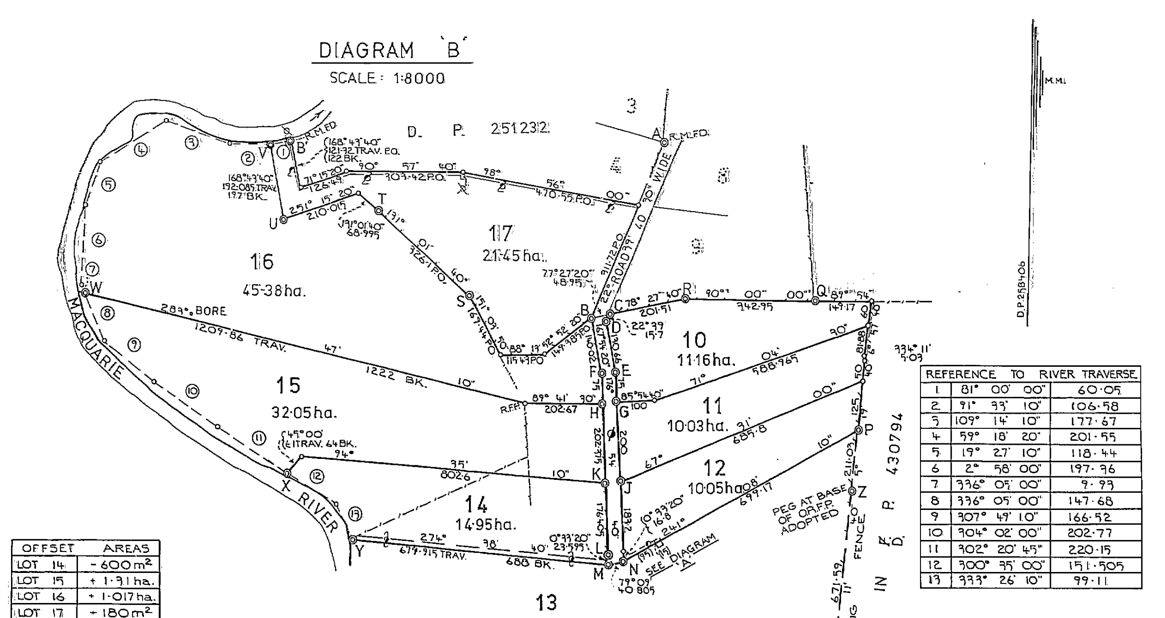
PLAN FORM 2 — Plan Drawing only to appear in this space — OFFICE USE ONLY

Signatures and seals only.

DIRECTOR … R. M. Sellars SECRETARY

Witnessed at Sydney this 1st day of June 1978 … PLAN OF SUBDIVISION … K. B. Alliston

DIAGRAM 'B'
SCALE: 1:8000



OFFSET	AREAS
LOT 14	− 600m²
LOT 15	+ 1·31ha.
LOT 16	+ 1·017ha.
LOT 17	+ 180m²

REFERENCE TO RIVER TRAVERSE		
1	81° 00' 00"	60·05
2	91° 33' 10"	106·58
3	109° 14' 10"	177·67
4	59° 18' 20"	201·55
5	19° 27' 10"	118·44
6	2° 58' 00"	197·96
7	336° 05' 00"	9·93
8	336° 05' 00"	147·68
9	307° 49' 10"	166·52
10	304° 02' 00"	202·77
11	302° 20' 45"	220·15
12	300° 35' 00"	151·505
13	333° 26' 10"	99·11

REFERENCE		MARK	SCHEDULE		
A	287° 03' 00"	G. I. ROD	1·005	(FD.)	D.P.251232
B	232° 52' 00"	G. I. ROD	1·99	(FD.)	D.P.251232
C	22° 39' 00"	G. I. ROD	1	(FD.)	D.P.251232
D	93° 54' 00"	G. I. ROD	0·93		
E	82° 25' 00"	G. I. ROD	1		
F	262° 25' 00"	G. I. ROD	1·015		
G	85° 55' 00"	G. I. ROD	1		
H	269° 41' 00"	G. I. ROD	1		
J	67° 31' 00"	G. I. ROD	1		
K	266° 55' 00"	G. I. ROD	1·05		
L	268° 44' 00"	G. I. ROD	1·005		
M	270° 33' 00"	G. I. ROD	1		
N	61° 08' 00"	G. I. ROD	1		
P	241° 08' 00"	G. I. ROD	1		
Q	319° 12' 00"	G. I. ROD	1·04	(FD)	
R	83° 07' 00"	G. I. ROD	1·42	(FD.)	
S	249° 48' 00"	G. I. ROD	0·76	(FD.)	
T	221° 57' 00"	G. I. ROD	0·67	(FD.)	
U	348° 44' 00"	IRON BOLT	1		
V	348° 44' 00"	IRON BOLT	1		
W	283° 47' 00"	G. I. ROD	1		
X	225° 00' 00"	G. I. ROD	1		
Y	274° 39' 00"	G. I. ROD	1		
Z	95° 08' 00"	G. I. ROD	1		
A'	97° 26' 00"	G. I. ROD	1·205		
B'	298° 25' 00"	G. I. ROD	0·97	(FD.)	D.P.251232

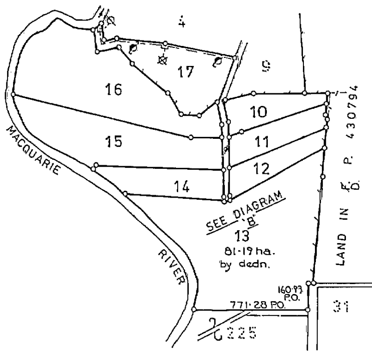
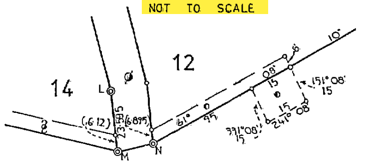


DIAGRAM 'A'
NOT TO SCALE



EASEMENT FOR WATER SUPPLY 4 WIDE
EASEMENT FOR WATER SUPPLY 8 WIDE
EASEMENT FOR WATER SUPPLY 15 WIDE

SEE DEALINGS Q58461, Q70455, Q147626, Q176024, Q187333, Q268763, Q564639, Q726214 & Q834879

EASEMENT FOR WATER SUPPLY 6·1 WIDE
EASEMENTS FOR WATER SUPPLY 6 AND 15 WIDE
ROAD 40 WIDE

Council Clerk's Certificate

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 section 34B of the †Metropolitan Water, Sewerage and Drainage Act, 1924, as amended. †Hunter District Water, Sewerage and Drainage Act, 1938, as amended
have been complied with by the applicant in relation to the proposed SUBDIVISION
(Insert "new road", "subdivision" or "consolidated lot") set out herein
Subdivision No. 459
Date 23 SEPT 1977
(Signature) …
Council Clerk
*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
†Delete if inapplicable.

D. P. 258406
Registered: 10-7-1979
C.A.: Nº 459 of 23-9-1977
Title System: TORRENS
Purpose: SUBDIVISION
Ref. Map: PARISH
Last Plan: D.P. 251232

PLAN OF SUBDIVISION OF LOTS 5 & 10 IN D. P. 251232

Reduction Ratio 1: 20000
Lengths are in metres.

Mun./Shire City: TALBRAGAR
Locality: DUBBO
Parish: WARRIE
County: LINCOLN

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

I, RICHARD ROSS LANGFORD of DUBBO N.S.W. a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan BY LINES OTHER THAN THOSE SHOWN is accurate and has been made *(1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on † 19 · 8 · 77
Signature …
Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth: 'A' 'B'
*Strike out either (1) or (2). †Insert date of survey.

Panel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

IT IS INTENDED TO DEDICATE THE ROAD 40 WIDE AS PUBLIC ROAD

TO CREATE, PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919:-
1. EASEMENT FOR WATER SUPPLY 6·1 WIDE.
2. EASEMENT FOR WATER SUPPLY 6 WIDE
3. EASEMENT FOR WATER SUPPLY 15 WIDE
4. RESTRICTIONS AS TO USER.

M.P.D. K.K.

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

SURVEYOR'S REFERENCE: 75/105B

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 28th day of September, 1979

D.P. 258406

CERTIFICATE OF TITLE

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

TORRENS TITLE
Register

Vol. 13008 Fol. 101

Appln. No.13970 (part)

Prior Title Vol.5484 Fol.231

CANCELLED

See new edition

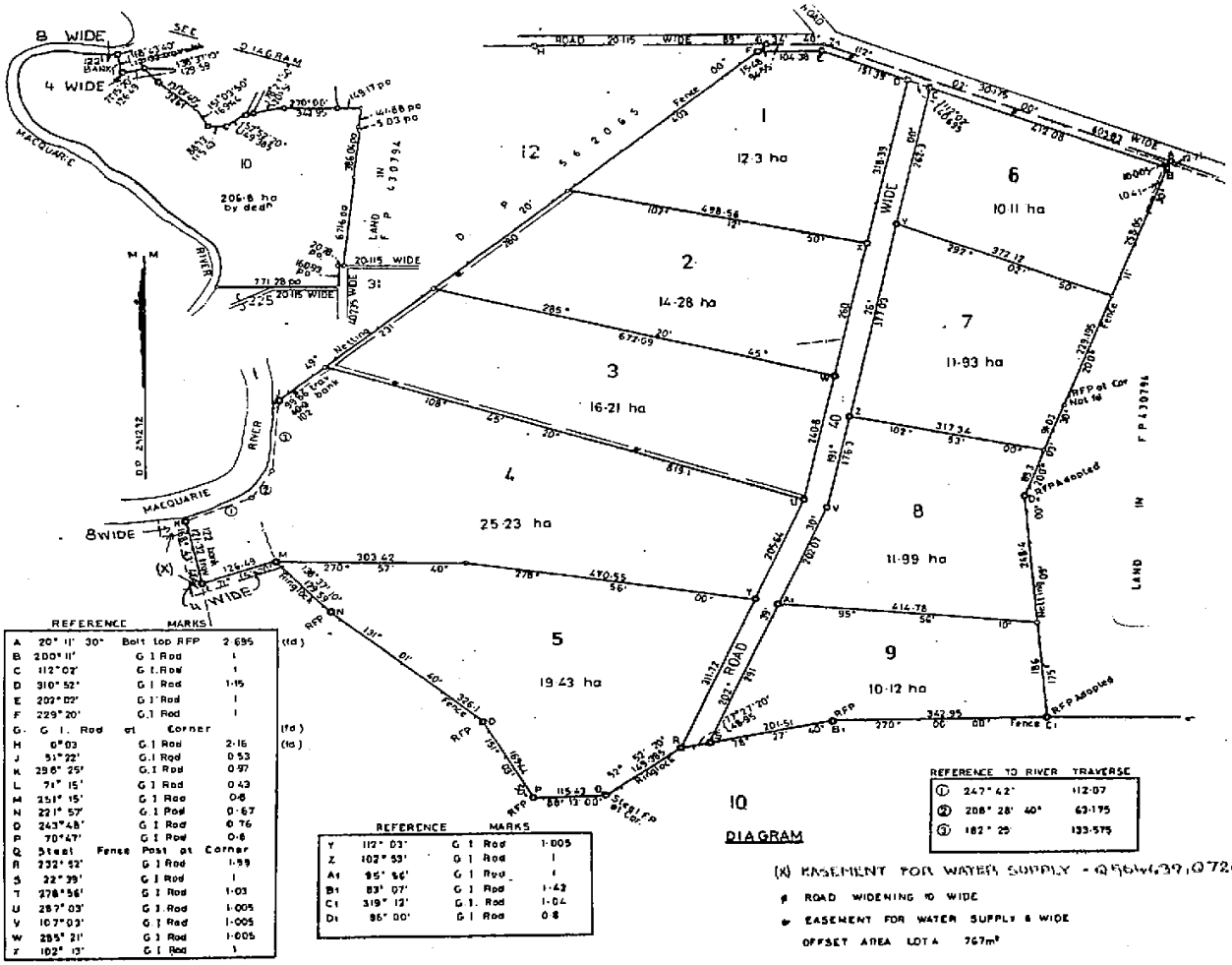
EDITION ISSUED
15 3 1976

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

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



REFERENCE MARKS			
A	20° 11' 30"	Bolt top RFP	2·695
B	200° 11'	G I Rod	1
C	112° 03'	G I Rod	1
D	310° 52'	G I Rod	1·15
E	202° 02'	G I Rod	1
F	229° 20'	G I Rod	1
G	G I Rod at Corner		
H	0° 03'	G I Rod	2·16
J	51° 22'	G I Rod	0·53
K	296° 25'	G I Rod	0·97
L	71° 15'	G I Rod	0·43
M	251° 15'	G I Rod	0·8
N	221° 57'	G I Rod	0·67
O	243° 48'	G I Rod	0·76
P	70° 47'	G I Rod	0·8
Q	Steel Fence Post at Corner		
R	232° 52'	G I Rod	1·99
S	22° 39'	G I Rod	1
T	278° 56'	G I Rod	1·03
U	287° 03'	G I Rod	1·005
V	107° 03'	G I Rod	1·005
W	285° 21'	G I Rod	1·005
Z	102° 13'	G I Rod	1

REFERENCE MARKS			
Y	112° 03'	G I Rod	1·005
Z	102° 53'	G I Rod	1
A1	95° 56'	G I Rod	1
B1	83° 07'	G I Rod	1·42
C1	319° 12'	G I. Rod	1·04
D1	95° 00'	G I Rod	0·8

REFERENCE TO RIVER TRAVERSE		
①	247° 42'	112·07
②	208° 28' 40"	63·175
③	182° 25'	133·575

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 10 in Deposited Plan 251232 at Dubbo in the Shire of Talbragar Parish of Warrie and County of Lincoln being part of Portion 95 granted to Edward Brooking Cornish on 14-11-1861, part of Portion 9 granted by Crown Grant Volume 426 Folio 19, part of Portion 56 granted by Crown Grant Volume 939 Folio 73 and Portions 210 and 218 granted by Crown Grants Volume 1001 Folios 105 and 106 respectively. EXCEPTING THEREOUT the minerals reserved by Crown Grants Volume 939 Folio 73 and Volume 1001 Folios 105 and 106.

FIRST SCHEDULE

HOWARD SYDNEY WYE of Dubbo, Farmer and Grazier.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Easement for Water Supply appurtenant to the land above described created by the registration of Deposited Plan 251232. See P548411.

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

Vol. 13008 Fol. 101

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
CANCELLED See new edition issued 13-11-1978 Vol 13008 Fol 101 vide Q838250. REGISTRAR GENERAL					

Q582461 Tr
Q704555 Tr
Q
CT 18.+.7
Q187333 Tr
Q176024 Tr
Q 26 8 76
CT 22-11-77
Q564639 Tr
Q726214 Tr
Q838250 D6

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Transfer	Q582461		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol. 13008 Fol 97 affecting that part of the land within described shown as 8 wide and 8 wide on the plan thereon	14-9-1977 ~~26-5-1977~~		
Transfer	Q704555		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol. 13008 Fol 94 affecting that part of the land within described shown as 4 wide and 8 wide on the plan thereon	14-9-1977 ~~26-5-1977~~		
Transfer	Q147626		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 98 affecting that part of the land within described shown as 4 wide and 8 wide on the plan thereon	14-9-1977		
Transfer	Q176024		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 92 affecting that part of the land within described shown as 4 wide and 8 wide in the plan thereon	14-9-1977		
Transfer	Q187333		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 100 affecting that part of the land within described shown as 4 wide and 8 wide on the plan thereon	14-9-1977		
Transfer	Q268763		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 99 affecting that part of the land within described shown as 4 wide and 8 wide in the plan thereon	14-9-1977		
Transfer Covenant	Q564639		Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 96 affecting that part of the land within described shown so burdened on the plan hereon	3-7-1978		

(Page 2 of 2 pages)

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

13008101

NEW SOUTH WALES

CERTIFICATE OF TITLE

PROPERTY ACT, 1900

Vol. 13008 Fol. 101

Appln No 13970 (part)

Prior Title Vol. 5484 Fol. 231

EDITION ISSUED

14 11 1978

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

Registrar General.

(Page 1) Vol. 13008 Fol. 101

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 10 in Deposited Plan 251232 at Dubbo in the Shire of Talbragar Parish of Warrie and County of Lincoln being part of Portion 95 granted to Edward Brooking Cornish on 14-11-1861 part of Portion 9 granted by Crown Grant Volume 426 Folio 19 part of Portion 56 granted by Crown Grant Volume 939 Folio 73 and Portions 210 and 218 granted by Crown Grants Volume 1001 Folios 105 and 106 respectively. EXCEPTING THEREOUT the minerals reserved by Crown Grants Volume 939 Folio 73 and Volume 1001 Folios 105 and 106.

FIRST SCHEDULE

HOWARD SYDNEY WYE of Dubbo, Farmer and Grazier.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. DP251232 Easement for water supply appurtenant to the land above described affecting the land shown so burdened in the plan hereon (see P548411).
3. ~~Q58461) Easements for water supply affecting the land shown so burdened in the plan hereon.~~
   ~~Q70455)~~
   ~~Q147626)~~
   ~~Q176024)~~
   ~~Q187333)~~
   ~~Q268763)~~
   ~~Q564639) Release lodged~~

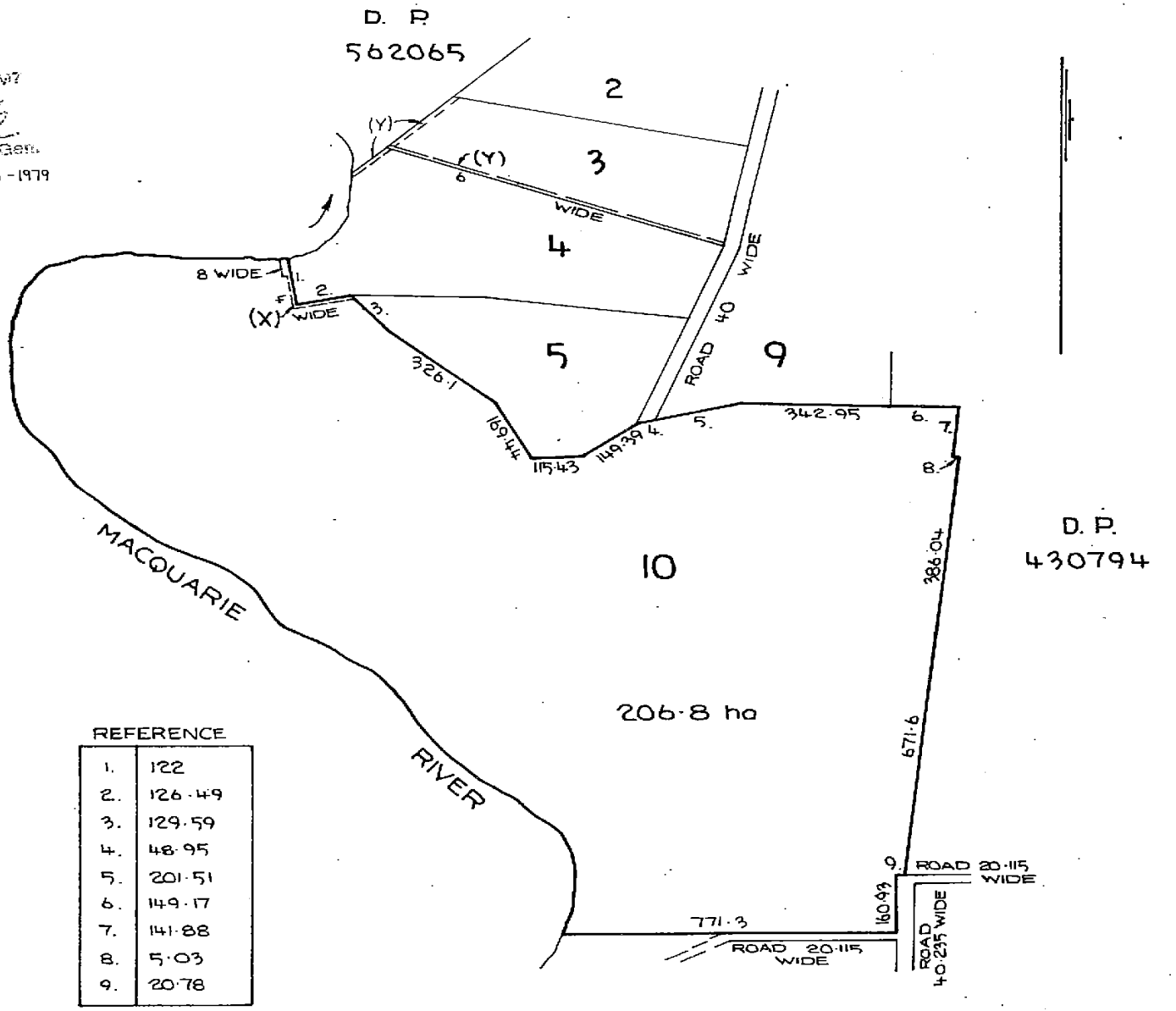
3. Q58461 Easements for water supply affecting the land shown so burdened in the plan hereon.
   Q70455
   Q147626
   Q176024
   Q187333
   Q268763
   ~~Q564639~~ Released Q714505.

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

Vol. 13008 Fol. 101

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



REFERENCE	
1.	122
2.	126·49
3.	129·59
4.	48·95
5.	201·51
6.	149·17
7.	141·88
8.	5·03
9.	20·78

1979M7
Reg. Gen.
8-8-1979

(X) EASEMENT FOR WATER SUPPLY
Q 58461
Q 70455
Q 147626
Q 176024
Q 187333
Q 268763
Q 564639
Q 726214

(Y) EASEMENT FOR WATER SUPPLY D.P. 251232 ~~D.P. 251231~~ (P548411)

1979M7
Reg. Gen.
8-8-1979

Q838250

REDUCTION RATIO 1:12500

Q726214

R293595 App

DP 258406.

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General

deed is cancelled as to Whole Ex Road

New Certificates of Title have issued on 16-10-1979

for lots in Deposited Plan No. 258406 as follows:-

Lots 10 to 17 Vol. 13974 Fol. 176 to 183 respectively.

REGISTRAR GENERAL

The residue of land in [illegible] comprises road.

NEW CERTIFICATE(S) OF TITLE ISSUING ON DP258406

NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO SURVEY DRAFTING BRANCH

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION
Transfer	Q726214	Easement for Water Supply [illegible] the said instrument affecting the land contained in Certificate of Title Volume 13008 Folio 93 affecting that part of the land within described shown so burdened in the plan hereon	21.3.1979	[signature]	
		Interests created pursuant to Section 88B Conveyancing Act, 1919. by the registration of Deposited Plan 258406	16.7.1979	[signature]	
		The interest of the Council of the Shire of Talbragar in the new road shown on DP258406.	16.7.1979	[signature]	

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

Vol. 13008 Fol. 101

Vol. 13008 Fol. 101

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		REGISTERED	Signature of Registrar General
	NATURE	NUMBER		

SECOND SCHEDULE (continued)

INSTRUMENT		PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
NATURE	NUMBER					

(Page 4 of 4 pages)

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

[redacted]ICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

13974179

Appln. No.13970 (part)

Prior Title Vol.13008 Fol.101

Vol. 13974 Fol. 179

EDITION ISSUED

22 10 1979

13974 Fol. 179

(Page 1) Vol. .....

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

Registrar General.

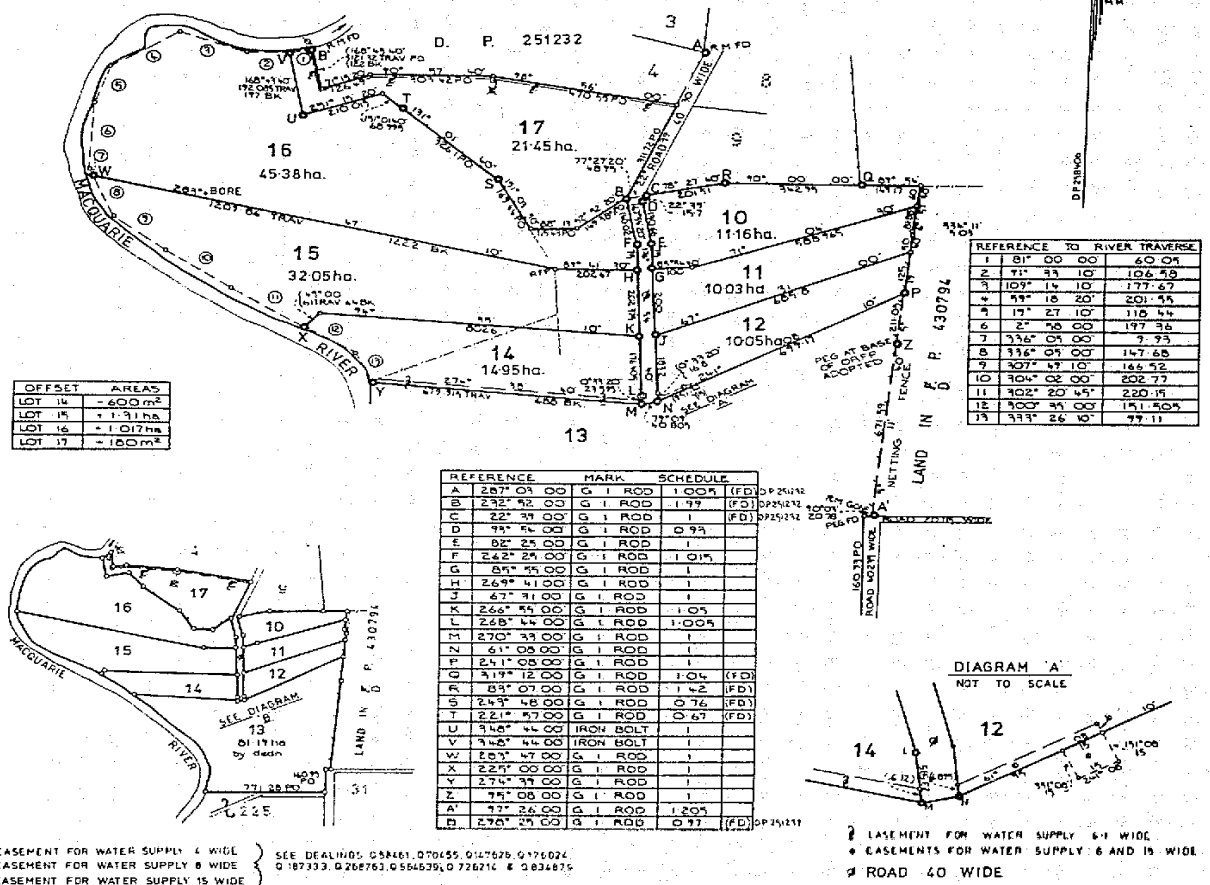
CANCELLED

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES

DIAGRAM 'B'

SEE AUTO FOLIO



OFFSET	AREAS
LOT 14	~600m²
LOT 15	~1·31ha
LOT 16	~1·017ha
LOT 17	~180m²

REFERENCE TO RIVER TRAVERSE			
1	81° 00 00	60·09
2	91° 33 10	106·58
3	109° 14 10	177·67
4	99° 18 20	201·55
5	17° 27 10	118·44
6	2° 58 00	197·36
7	336° 09 00	9·93
8	336° 09 00	147·68
9	307° 49 10	166·52
10	304° 02 00	202·77
11	302° 20 45	220·19
12	300° 33 00	151·505
13	333° 26 10	99·11

REFERENCE		MARK	SCHEDULE		
A	287° 09 00	G 1 ROD	1·005	(FD)	DP 251232
B	232° 52 00	G 1 ROD	1·99	(FD)	DP251232
C	22° 33 00	G 1 ROD	1	(FD)	DP251232
D	99° 54 00	G 1 ROD	0·99		
E	82° 25 00	G 1 ROD	1		
F	262° 25 00	G 1 ROD	1·015		
G	89° 55 00	G 1 ROD	1		
H	269° 41 00	G 1 ROD	1		
J	67° 31 00	G 1 ROD	1		
K	266° 55 00	G 1 ROD	1·05		
L	268° 44 00	G 1 ROD	1·005		
M	270° 33 00	G 1 ROD	1		
N	61° 08 00	G 1 ROD	1		
P	241° 08 00	G 1 ROD	1		
Q	319° 12 00	G 1 ROD	1·04	(FD)	
R	89° 07 00	G 1 ROD	1·42	(FD)	
S	249° 48 00	G 1 ROD	0·76	(FD)	
T	221° 57 00	G 1 ROD	0·67	(FD)	
U	346° 44 00	IRON BOLT	1		
V	346° 44 00	IRON BOLT	1		
W	69° 47 00	G 1 ROD	1		
X	225° 00 00	G 1 ROD	1		
Y	274° 39 00	G 1 ROD	1		
Z	75° 08 00	G 1 ROD	1		
A'	77° 26 00	G 1 ROD	1·205		
B	298° 29 00	G 1 ROD	0·97	(FD)	DP 251232

DIAGRAM 'A'
NOT TO SCALE

EASEMENT FOR WATER SUPPLY 4 WIDE
EASEMENT FOR WATER SUPPLY 8 WIDE
EASEMENT FOR WATER SUPPLY 15 WIDE
SEE DEALINGS Q58461, Q70655, Q127628, Q175024, Q187333, Q268763, Q564539, Q726214 & Q834875

EASEMENT FOR WATER SUPPLY 6·1 WIDE
EASEMENTS FOR WATER SUPPLY 8 AND 15 WIDE
ROAD 40 WIDE

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 13 in Deposited Plan 258406 at Dubbo in the Shire of Talbragar Parish of Warrie and County of Lincoln being part of Portion 95 granted to Edward Brooking Cornish on 14-11-1861, part of Portion 9 granted by Crown Grant Volume 416 Folio 19, part of Portion 56 granted by Crown Grant Volume 939 Folio 73, part of Portions 210 and 218 granted by Crown Grants Volume 1001 Folios 105 and 106. EXCEPTING THEREOUT the minerals reserved by the Crown Grants Volume 939 Folio 73, Volume 1001 Folios 105 and 106.

FIRST SCHEDULE

HOWARD SYDNEY WYE of Dubbo, Farmer and Grazier.

SECOND SCHEDULE

GRY EF2 1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. DP251232 Easement for water supply appurtenant to the land above described affecting the piece of land shown so burdened in Deposited Plan 251232 - (see P548411).
EF(S8) 3. DP258406 Easement for water supply affecting the part of the land above described shown so burdened in Deposited Plan 258406.
RU 4. DP258406 Restrictions as to user.

RG 2/62

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

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		REGISTERED	Signature of Registrar General
	NATURE	NUMBER		

SECOND SCHEDULE (continued)

INSTRUMENT		PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
NATURE	NUMBER					

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

LAND REGISTRY SERVICES Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
15/9/2023 2:08PM

FOLIO: 13/258406

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 13974 FOL 179

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
25/9/1987		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
6/7/2022	AS282039	TRANSFER	
6/7/2022	AS282040	MORTGAGE	EDITION 1

*** END OF SEARCH ***

20L ROCKY RD DUBBO 2830 PRINTED ON 15/9/2023

Received: 15/09/2023 14:08:02

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 13/258406

SEARCH DATE	TIME	EDITION NO	DATE
15/9/2023	2:05 PM	1	6/7/2022

LAND

LOT 13 IN DEPOSITED PLAN 258406
AT DUBBO
LOCAL GOVERNMENT AREA DUBBO REGIONAL
PARISH OF WARRIE COUNTY OF LINCOLN
TITLE DIAGRAM DP258406

FIRST SCHEDULE

VELO HOLDINGS PTY LTD (T AS282039)

SECOND SCHEDULE (6 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP251232 EASEMENT FOR WATER SUPPLY APPURTENANT TO THE LAND ABOVE DESCRIBED
3 DP258406 EASEMENT FOR WATER SUPPLY AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 DP258406 RESTRICTION(S) ON THE USE OF LAND
5 LAND EXCLUDES MINERALS BY THE CROWN GRANTS VOL.939 FOL.73,VOL.1001 FOLS 105 & 106
6 AS282040 MORTGAGE TO SUNCORP-METWAY LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

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

Summary of Owners Report

Re: - 20L Rocky Road, Dubbo

Description: - Lot 13 D.P. 258406

.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
20.12.1913 (1913 to 1935)	Thomas Draper Palmer (Farmer & Grazier)	Volume 2422 Folio 187
02.04.1935 (1935 to 1944)	Florence Elizabeth Palmer (Widow) George Thomas Bryan Palmer (Farmer & Grazier) (Transmission Application not investigated)	Volume 2422 Folio 187
20.12.1944 (1944 to 1949)	John Mankin Mackay (Grazier)	Volume 2422 Folio 187 Now Volume 5484 Folio 231
01.12.1949 (1949 to 1952)	Thomas Theyre Weigall (Grazier)	Volume 5484 Folio 231
28.02.1952 (1952 to 1952)	Dorothy Clare Weigall (Widow) (Transmission Application not investigated)	Volume 5484 Folio 231
18.04.1952 (1952 to 1958)	Sydney Denson Wye (Grazier)	Volume 5484 Folio 231
11.07.1958 (1958 to 2022)	Howard Sydney Wye (Farmer & Grazier)	Volume 5484 Folio 231 Then Volume 13008 Folio 101 Volume 13974 Folio 179 Now 13/258406
06.07.2022 (2022 to date)	# Velo Holdings Pty Ltd	13/258406

 # Denotes current registered proprietor

Leases: - NIL

Easements: -

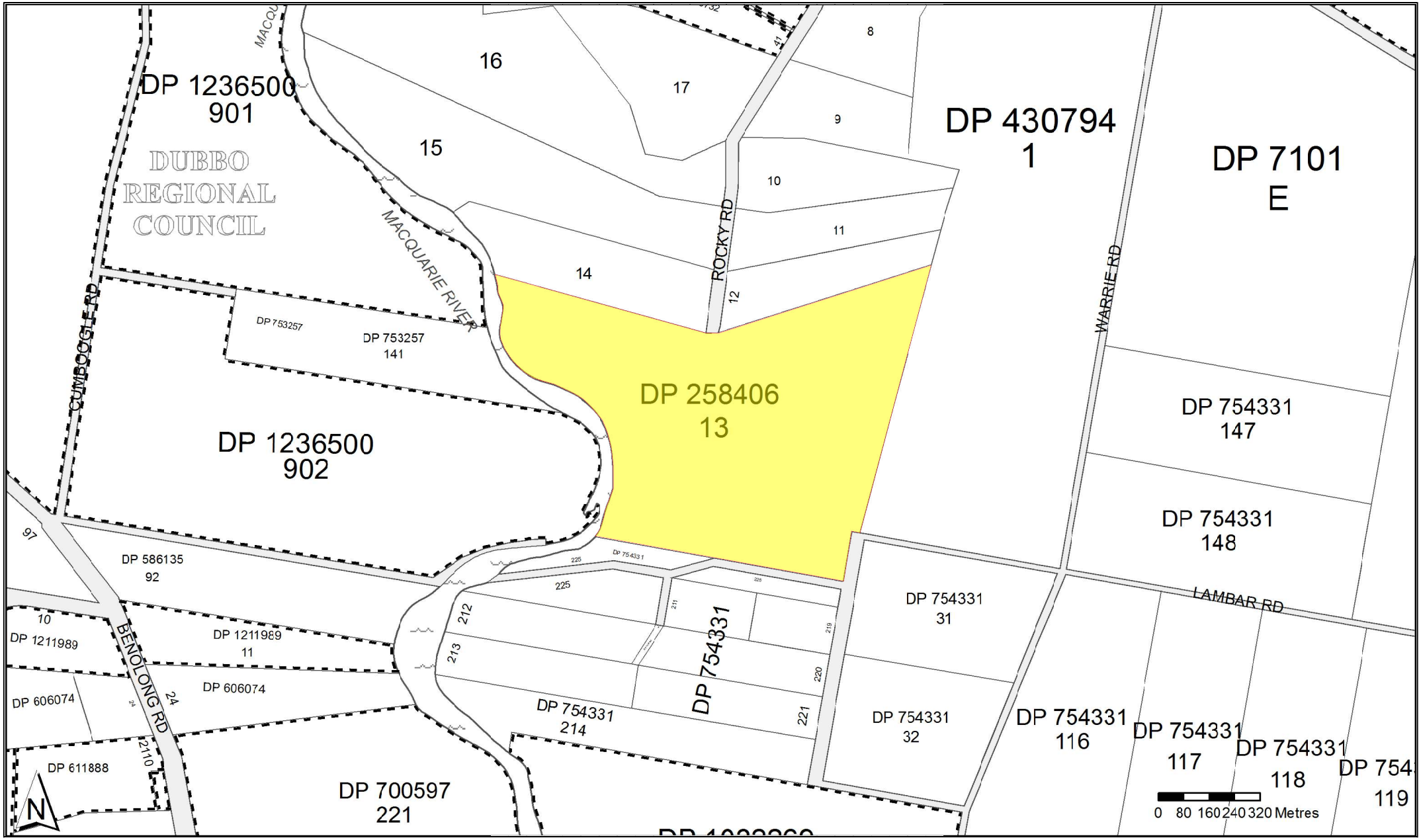
- 16.07.1979 (D.P. 258406) Easement for Water Supply.

Yours Sincerely
Mark Groll
16 September 2023

Cadastral Records Enquiry Report : Lot 13 DP 258406

Ref : 20L ROCKY RD DUBBO 2830

Locality : DUBBO
Parish : WARRIE
LGA : DUBBO REGIONAL
County : LINCOLN



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

PLAN FORM 2

OFFICE USE ONLY

D. P. 258406

Registered: [stamp] 6-7-1979

C.A.: Nº 459 of 23-9-1977

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: PARISH

Last Plan: D.P.251232#

PLAN OF SUBDIVISION OF LOTS 5 & 10 IN D. P. 251232

Reduction Ratio 1: 20000
Lengths are in metres.

Mun./Shire City: TALBRAGAR

Locality: DUBBO

Parish: WARRIE

County: LINCOLN

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

I, RICHARD ROSS LANGFORD of DUBBO N.S.W. a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan BY LINES OTHER THAN THOSE SHOWN is accurate and has been made *(1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on † 19 · 8 · 77

Signature [signature]

Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth: 'A' 'B'
*Strike out either (1) or (2). †Insert date of survey.

Panel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

IT IS INTENDED TO DEDICATE THE ROAD 40 WIDE AS PUBLIC ROAD

TO CREATE, PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919:-

1. EASEMENT FOR WATER SUPPLY 6·1 WIDE.
2. EASEMENT FOR WATER SUPPLY 6 WIDE
3. EASEMENT FOR WATER SUPPLY 15 WIDE
4. RESTRICTIONS AS TO USER.

Signatures and seals only.

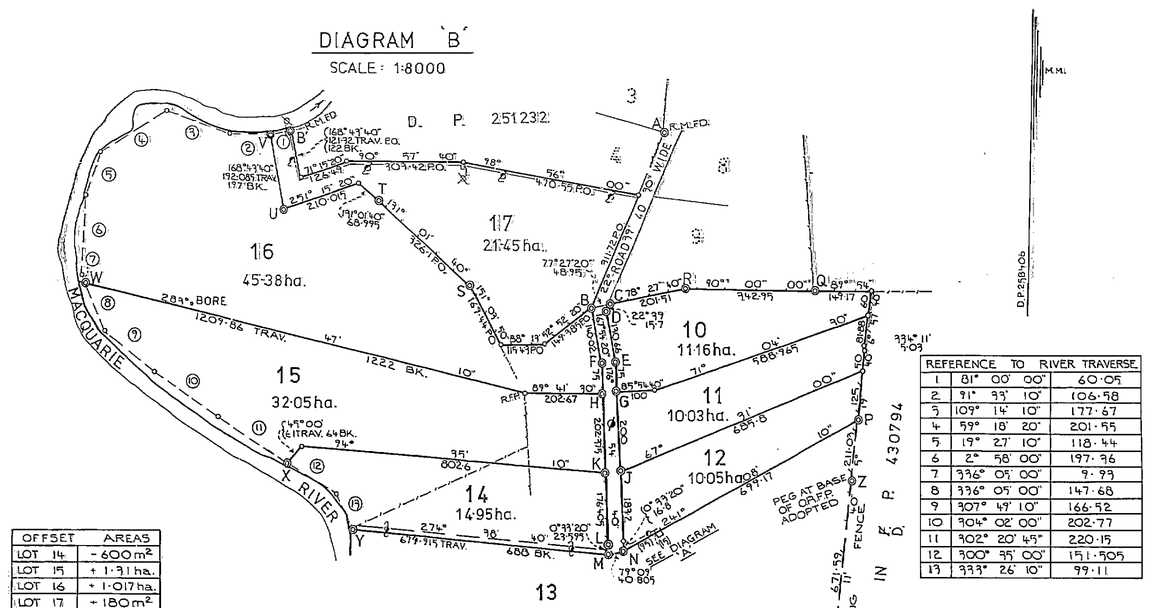
[signatures and seal]

SEALED AT SYDNEY THIS 1ST DAY OF JUNE 1978 ... PLAN OF SUBDIVISION

K. B. Allerton

DIAGRAM 'B'

SCALE: 1:8000



OFFSET	AREAS
LOT 14	− 600 m²
LOT 15	+ 1·31 ha.
LOT 16	+ 1·017 ha.
LOT 17	+ 180 m²

REFERENCE TO RIVER TRAVERSE		
1	81° 00' 00"	60·05
2	91° 33' 10"	106·58
3	109° 14' 10"	177·67
4	59° 18' 20"	201·55
5	19° 27' 10"	118·44
6	2° 58' 00"	197·36
7	336° 05' 00"	9·93
8	336° 05' 00"	147·68
9	307° 49' 10"	166·52
10	304° 02' 00"	202·77
11	302° 20' 45"	220·15
12	300° 35' 00"	151·505
13	333° 26' 10"	99·11

REFERENCE		MARK	SCHEDULE		
A	287° 03' 00"	G. I. ROD	1·005	(FD)	DP251232
B	232° 52' 00"	G. I. ROD	1·99	(FD)	DP251232
C	22° 39' 00"	G. I. ROD	1	(FD)	DP251232
D	93° 54' 00"	G. I. ROD	0·93		
E	82° 25' 00"	G. I. ROD	1		
F	262° 25' 00"	G. I. ROD	1·015		
G	85° 55' 00"	G. I. ROD	1		
H	269° 41' 00"	G. I. ROD	1		
J	67° 31' 00"	G. I. ROD	1		
K	266° 55' 00"	G. I. ROD	1·05		
L	268° 44' 00"	G. I. ROD	1·005		
M	270° 33' 00"	G. I. ROD	1		
N	61° 08' 00"	G. I. ROD	1		
P	241° 08' 00"	G. I. ROD	1		
Q	319° 12' 00"	G. I. ROD	1·04	(FD)	
R	83° 07' 00"	G. I. ROD	1·42	(FD)	
S	249° 48' 00"	G. I. ROD	0·76	(FD)	
T	221° 57' 00"	G. I. ROD	0·67	(FD)	
U	348° 44' 00"	IRON BOLT	1		
V	348° 44' 00"	IRON BOLT	1		
W	283° 47' 00"	G. I. ROD	1		
X	225° 00' 00"	G. I. ROD	1		
Y	274° 39' 00"	G. I. ROD	1		
Z	95° 08' 00"	G. I. ROD	1		
A'	97° 26' 00"	G. I. ROD	1·205		
B'	278° 25' 00"	G. I. ROD	0·97	(FD)	DP251232

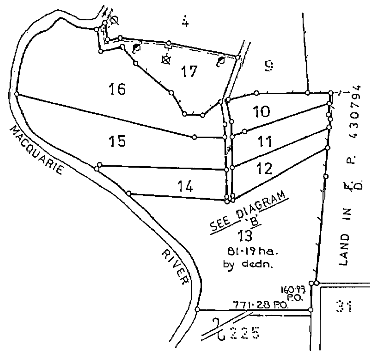
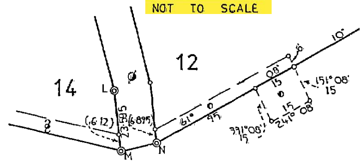


DIAGRAM 'A'

NOT TO SCALE



∂ EASEMENT FOR WATER SUPPLY 6·1 WIDE
⊙ EASEMENTS FOR WATER SUPPLY 6 AND 15 WIDE
∅ ROAD 40 WIDE

∂ EASEMENT FOR WATER SUPPLY 4 WIDE
ℵ EASEMENT FOR WATER SUPPLY 8 WIDE
✕ EASEMENT FOR WATER SUPPLY 15 WIDE

SEE DEALINGS 058461, 070455, 0147626, 0176024, 0187333, 0268763, 0584639, 0726214 & 0834879

Council Clerk's Certificate

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 section 34B of the †Metropolitan Water, Sewerage and Drainage Act, 1924, as amended. †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended~~
have been complied with by the applicant in relation to the proposed SUBDIVISION
(Insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. 459

Date 23 SEPT 1977

(Signature) [signature]
Council Clerk

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
†Delete if inapplicable.

K.K.
M.P.D.

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

SURVEYOR'S REFERENCE: 75/105B

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 28th day of September, 1979

[signature]

CERTIFICATE OF TITLE

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

TORRENS TITLE
Register

Vol. 13008 Fol. 101

Appln. No.13970 (part)

Prior Title Vol.5484 Fol.231

CANCELLED

See new edition

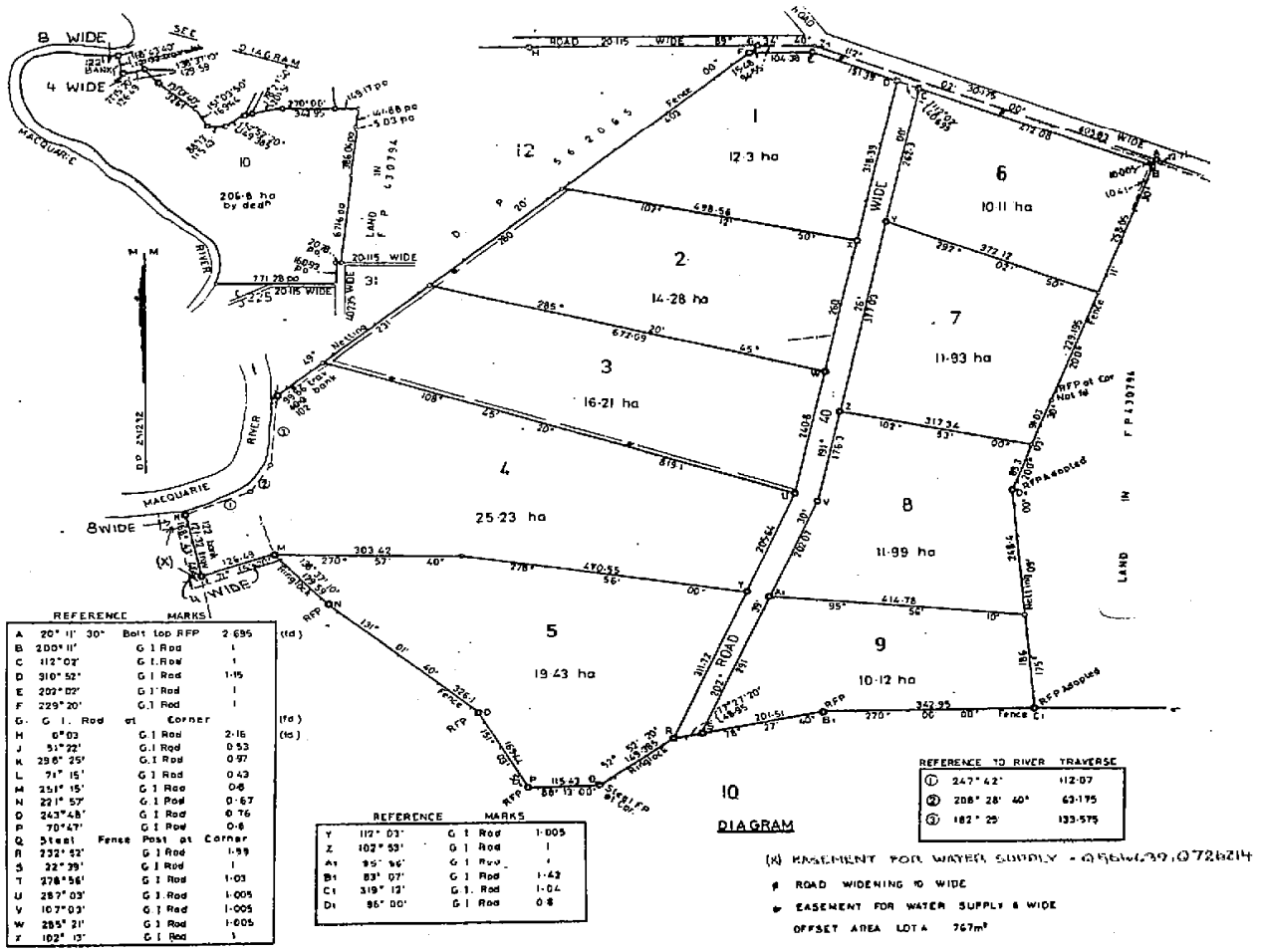
EDITION ISSUED
15 3 1976

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

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 10 in Deposited Plan 251232 at Dubbo in the Shire of Talbragar Parish of Warrie and County of Lincoln being part of Portion 95 granted to Edward Brooking Cornish on 14-11-1861, part of Portion 9 granted by Crown Grant Volume 426 Folio 19, part of Portion 56 granted by Crown Grant Volume 939 Folio 73 and Portions 210 and 218 granted by Crown Grants Volume 1001 Folios 105 and 106 respectively. EXCEPTING THEREOUT the minerals reserved by Crown Grants Volume 939 Folio 73 and Volume 1001 Folios 105 and 106.

FIRST SCHEDULE

HOWARD SYDNEY WYE of Dubbo, Farmer and Grazier.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Easement for Water Supply appurtenant to the land above described created by the registration of Deposited Plan 251232. See P548411.

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

Q58461
Q70455
CT 18.4.7
Q187333
Q176024
Q26
CT 22-11-77
Q564639
Q72621
Q838250

Vol. 13008 Fol. 101

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
CANCELLED See new edition issued ~~13-11-1978~~ ~~Vol 13008 Fol 101~~ vide Q838250. REGISTRAR GENERAL					

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Transfer	Q58461	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol. 13008 Fol 97 affecting that part of the land within described shown as 4 wide and 8 wide in the plan hereon	14-9-1977 ~~26-8-1977~~		
Transfer	Q70455	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol. 13008 Fol 95 affecting that part of the land within described shown as 4 wide and 8 wide in the plan hereon	14-9-1977 ~~26-8-1977~~		
Transfer	Q147626	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 98 affecting that part of the land within described shown as 4 wide and 8 wide in the plan hereon	14-9-1977		
Transfer	Q176024	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 52 affecting that part of the land within described shown as 4 wide and 8 wide in the plan hereon	14-9-1977		
Transfer	Q187333	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 100 affecting that part of the land within described shown as 4 wide and 8 wide in the plan hereon	14-9-1977		
Transfer	Q268763	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 99 affecting that part of the land within described shown as 4 wide and 8 wide in the plan hereon	14-9-1977		
Transfer Easement	Q564639	—	Easement for Water Supply (as more fully set out in the said instrument) appurtenant to the land comprised in Certificate of Title Vol 13008 Fol 96 affecting that part of the land within described shown so burdened in the plan hereon	3-7-1978		

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

13008101

NEW SOUTH WALES

CERTIFICATE OF TITLE

PROPERTY ACT, 1900

Vol. 13008 Fol. 101

Appln No 13970 (part)

Prior Title Vol. 5484 Fol. 231

EDITION ISSUED

14 11 1978

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

Registrar General.

(Page 1) Vol. 13008 Fol. 101

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 10 in Deposited Plan 251232 at Dubbo in the Shire of Talbragar Parish of Warrie and County of Lincoln being part of Portion 95 granted to Edward Brooking Cornish on 14-11-1861 part of Portion 9 granted by Crown Grant Volume 426 Folio 19 part of Portion 56 granted by Crown Grant Volume 939 Folio 73 and Portions 210 and 218 granted by Crown Grants Volume 1001 Folios 105 and 106 respectively. EXCEPTING THEREOUT the minerals reserved by Crown Grants Volume 939 Folio 73 and Volume 1001 Folios 105 and 106.

FIRST SCHEDULE

HOWARD SYDNEY WYE of Dubbo, Farmer and Grazier.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. DP251232 Easement for water supply appurtenant to the land above described affecting the land shown so burdened in the plan hereon (see P548411).
3. ~~Q58461) Easements for water supply affecting the land shown so burdened in the plan hereon.~~
   ~~Q70455)~~
   ~~Q147626)~~
   ~~Q176024)~~
   ~~Q187333)~~
   ~~Q268763)~~
   ~~Q564639) Released Q70455~~

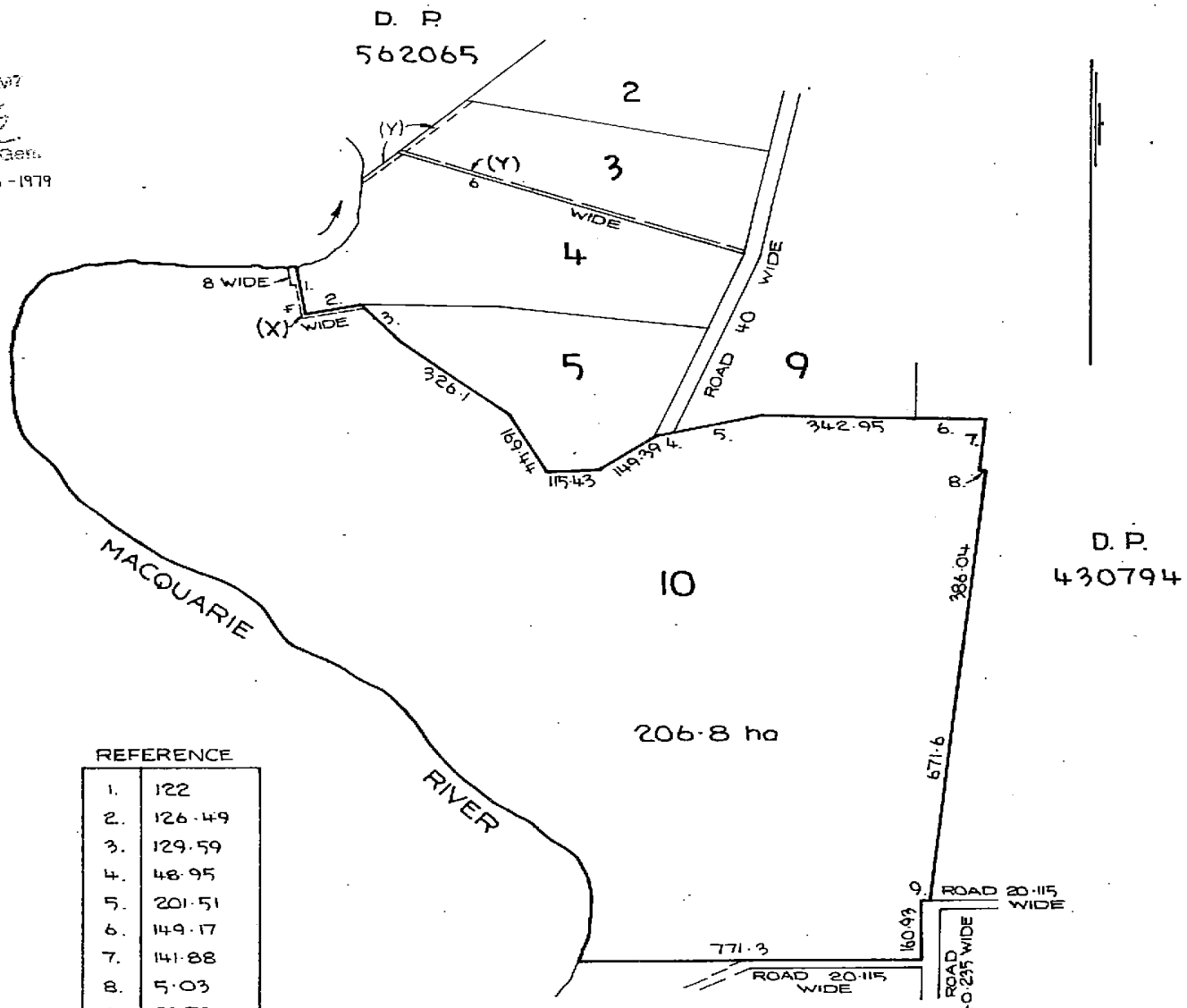
3. Q58461 Easements for water supply affecting the land shown so burdened in the plan hereon.
   Q70455
   Q147626
   Q176024
   Q187333
   Q268763
   ~~Q564639~~ Released Q70455.

Vol. 13008 Fol. 101

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES

1979M7
Reg. Gen.
8-8-1979



REFERENCE	
1.	122
2.	126·49
3.	129·59
4.	48·95
5.	201·51
6.	149·17
7.	141·88
8.	5·03
9.	20·78

(X) EASEMENT FOR WATER SUPPLY { Q 58461, Q 70455, Q 147626, Q 176024, Q 187333, Q 268763, Q 564639, Q 726114

(Y) EASEMENT FOR WATER SUPPLY D.P. 251232 ~~D.P. 251231~~ (P548411)

1979M7
Reg. Gen.
8-8-1979

Q838250

REDUCTION RATIO 1:12500

Q726214 K (Page 3 of 4 pages)

R293595 App

DP258406. 17/7/79

Vol. 13008 Fol. 101

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General
Deed is cancelled as to Whole Ex Road. New Certificates of Title have issued on 16-10-1979 for lots in Deposited Plan No. 258406 as follows: Lots 10 to 11 Vol. 13974 Fol. 176 to 183 respectively. REGISTRAR GENERAL				
The residue of land in ... comprises road.				
NEW CERTIFICATE(S) OF TITLE ISSUING ON DP258406. NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO SURVEY DRAFTING BRANCH.				

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION
Transfer	Q726214	Easement for Water Supply ... appurtenant to the land contained in Certificate of Title Volume 13008 Folio 93 affecting that part of the land within described shown so burdened in the plan hereon	29.3.1977	[signature]	
		interests created pursuant to Section 88B Conveyancing Act, 1919. by the registration of Deposited Plan 258406	16.7.1979	[signature]	
		The interest of the Council of the Shire of Talbragar in the new road shown on DP258406.	16.7.1979	[signature]	

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

Vol. 13008 Fol. 101

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		REGISTERED	Signature of Registrar General
	NATURE	NUMBER		

SECOND SCHEDULE (continued)

INSTRUMENT		PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
NATURE	NUMBER					

(Page 4 of 4 pages)

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

[redacted]ICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

13974179

Appln. No.13970 (part)

Prior Title Vol.13008 Fol.101

Vol. 13974 Fol. 179

EDITION ISSUED

22 10 1979

13974 Fol. 179

(Page 1) Vol.

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

Registrar General.

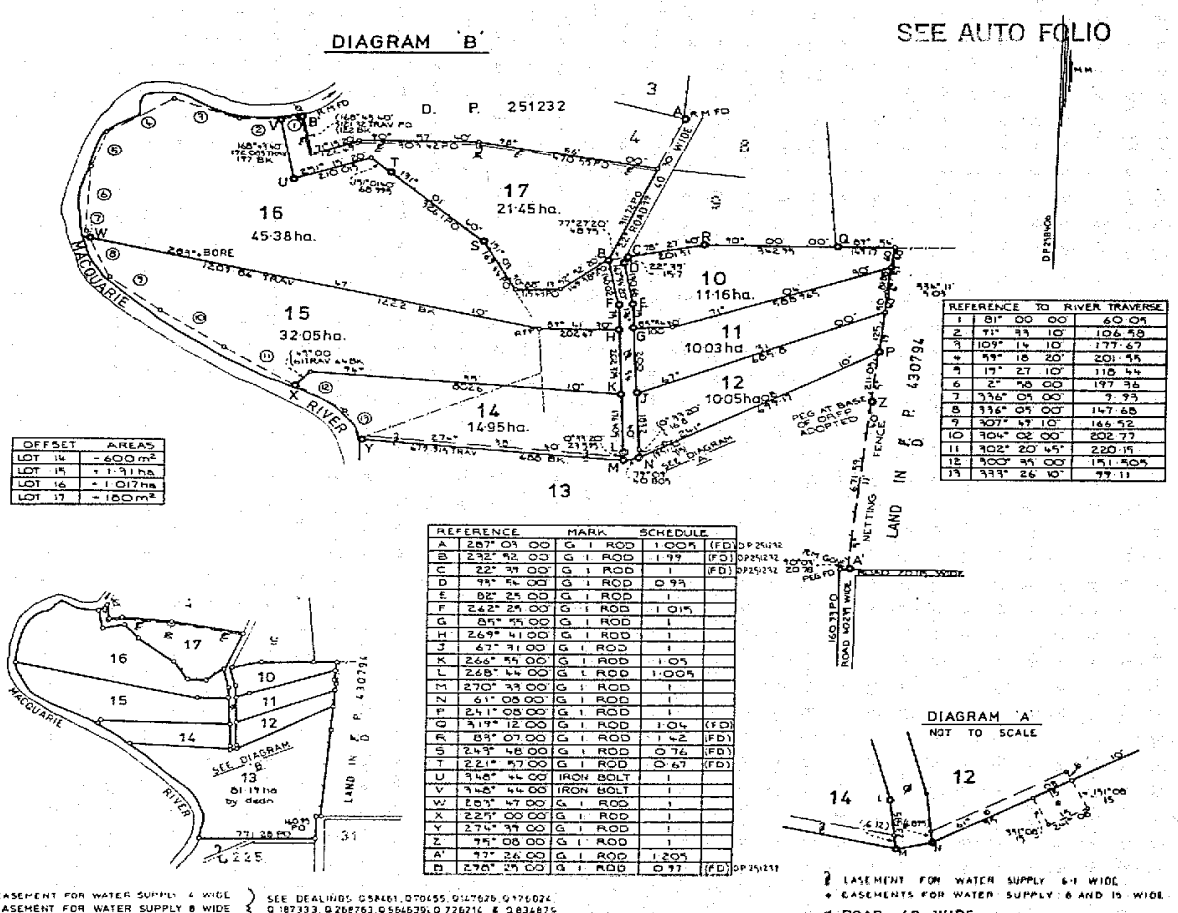
CANCELLED

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES

DIAGRAM 'B'



OFFSET	AREAS
LOT 14	- 600m²
LOT 15	+ 1·91ha
LOT 16	+ 1·017ha
LOT 17	- 100m²

REFERENCE	TO	RIVER TRAVERSE
1	81° 00 00	60·09
2	91° 99 10	106·58
3	109° 14 10	177·67
4	99° 18 20	201·55
5	17° 27 10	118·44
6	2° 58 00	197·96
7	336° 09 00	9·93
8	336° 09 00	147·68
9	307° 47 10	166·52
10	304° 02 00	202·77
11	302° 20 45	220·15
12	300° 99 00	191·505
13	333° 26 10	99·11

REFERENCE	MARK	SCHEDULE		
A	287° 09 00	G 1 ROD	1·005	(FD) DP 251232
B	292° 92 00	G 1 ROD	1·19	(FD) DP251232
C	22° 39 00	G 1 ROD	1	(FD) DP251232
D	99° 56 00	G 1 ROD	0·99	
E	82° 25 00	G 1 ROD	1	
F	242° 29 00	G 1 ROD	1·015	
G	89° 55 00	G 1 ROD	1	
H	269° 41 00	G 1 ROD	1	
J	67° 31 00	G 1 ROD	1	
K	266° 55 00	G 1 ROD	1·05	
L	268° 44 00	G 1 ROD	1·005	
M	270° 39 00	G 1 ROD	1	
N	61° 08 00	G 1 ROD	1	
P	241° 05 00	G 1 ROD	1	
Q	319° 12 00	G 1 ROD	1·04	(FD)
R	89° 07 00	G 1 ROD	1·42	(FD)
S	249° 48 00	G 1 ROD	0·76	(FD)
T	221° 57 00	G 1 ROD	0·67	(FD)
U	96° 44 00	IRON BOLT	1	
V	96° 44 00	IRON BOLT	1	
W	283° 47 00	G 1 ROD	1	
X	223° 00 00	G 1 ROD	1	
Y	276° 99 00	G 1 ROD	1	
Z	99° 08 00	G 1 ROD	1	
A'	97° 26 00	G 1 ROD	1·205	
B	276° 25 00	G 1 ROD	0·97	(FD) DP 251232

DIAGRAM 'A'
NOT TO SCALE

EASEMENT FOR WATER SUPPLY 4 WIDE
EASEMENT FOR WATER SUPPLY 8 WIDE
EASEMENT FOR WATER SUPPLY 15 WIDE
SEE DEALINGS G58461, G70655, G147626, G176024, G187333, G268763, G564639, G726214 & G834879

EASEMENT FOR WATER SUPPLY 6·1 WIDE
EASEMENTS FOR WATER SUPPLY 8 AND 15 WIDE
ROAD 40 WIDE

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 13 in Deposited Plan 258406 at Dubbo in the Shire of Talbragar Parish of Warrie and County of Lincoln being part of Portion 95 granted to Edward Brooking Cornish on 14-11-1861, part of Portion 9 granted by Crown Grant Volume 416 Folio 19, part of Portion 56 granted by Crown Grant Volume 939 Folio 73, part of Portions 210 and 218 granted by Crown Grants Volume 1001 Folios 105 and 106. EXCEPTING THEREOUT the minerals reserved by the Crown Grants Volume 939 Folio 73, Volume 1001 Folios 105 and 106.

FIRST SCHEDULE

HOWARD SYDNEY WYE of Dubbo, Farmer and Grazier.

SECOND SCHEDULE

GRY 1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
EFZ 2. DP251232 Easement for water supply appurtenant to the land above described affecting the piece of land shown so burdened in Deposited Plan 251232 - (see P548411).
EF(SB) 3. DP258406 Easement for water supply affecting the part of the land above described shown so burdened in Deposited Plan 258406.
RU 4. DP258406 Restrictions as to user.

RG 2/62

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

Vol. 13974 Fol. 179

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		REGISTERED	Signature of Registrar General
	NATURE	NUMBER		

SECOND SCHEDULE (continued)

INSTRUMENT		PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
NATURE	NUMBER					

(Page 2 of 2 pages)

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

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
15/9/2023 2:08PM

FOLIO: 13/258406

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 13974 FOL 179

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
25/9/1987		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
6/7/2022	AS282039	TRANSFER	
6/7/2022	AS282040	MORTGAGE	EDITION 1

*** END OF SEARCH ***

20L ROCKY RD DUBBO 2830 PRINTED ON 15/9/2023

Received: 15/09/2023 14:08:02

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 13/258406

SEARCH DATE	TIME	EDITION NO	DATE
15/9/2023	2:05 PM	1	6/7/2022

LAND

LOT 13 IN DEPOSITED PLAN 258406
AT DUBBO
LOCAL GOVERNMENT AREA DUBBO REGIONAL
PARISH OF WARRIE COUNTY OF LINCOLN
TITLE DIAGRAM DP258406

FIRST SCHEDULE

VELO HOLDINGS PTY LTD (T AS282039)

SECOND SCHEDULE (6 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP251232 EASEMENT FOR WATER SUPPLY APPURTENANT TO THE LAND ABOVE DESCRIBED
3 DP258406 EASEMENT FOR WATER SUPPLY AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 DP258406 RESTRICTION(S) ON THE USE OF LAND
5 LAND EXCLUDES MINERALS BY THE CROWN GRANTS VOL.939 FOL.73,VOL.1001 FOLS 105 & 106
6 AS282040 MORTGAGE TO SUNCORP-METWAY LIMITED

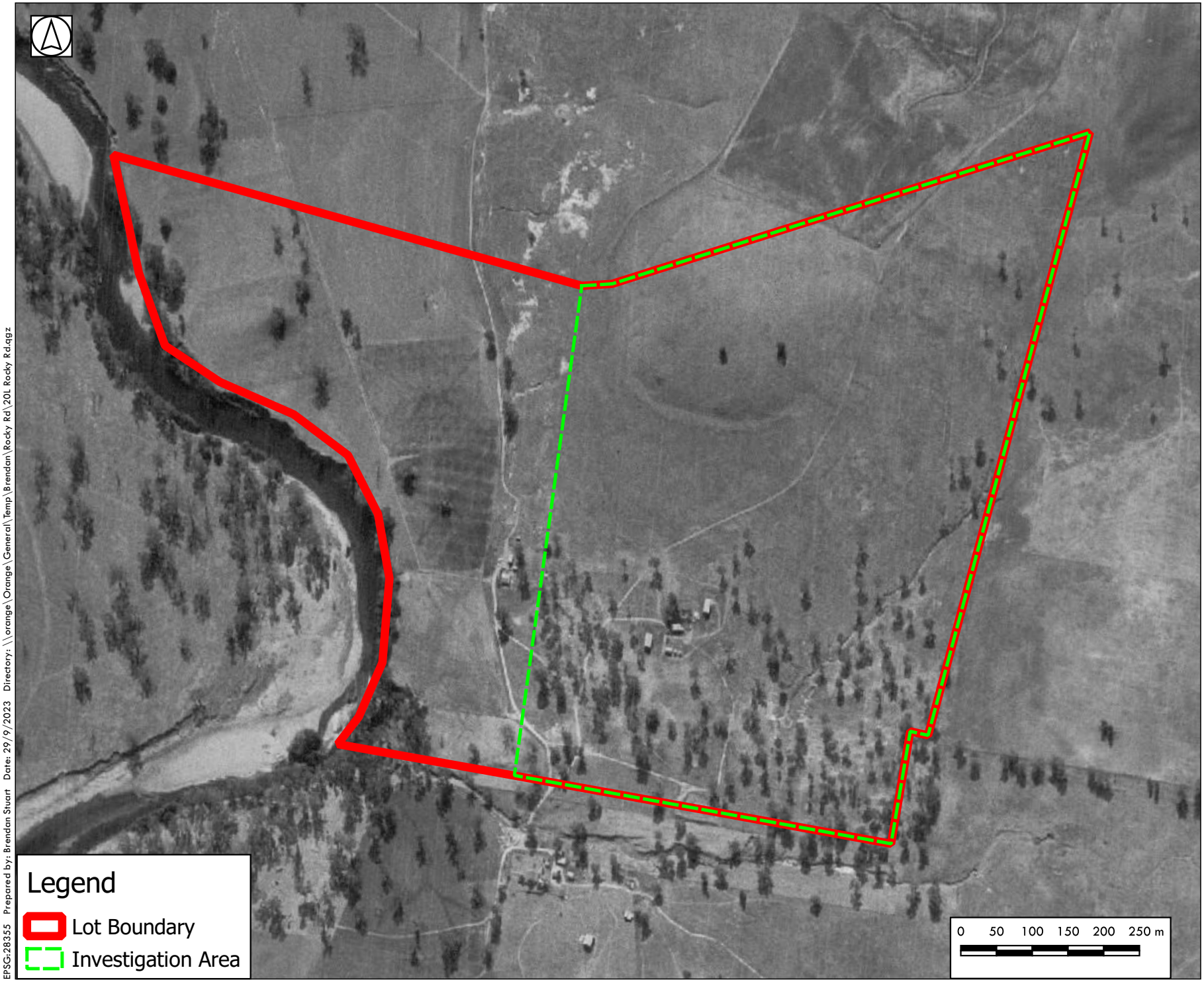
NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

APPENDIX C

HISTORIC AERIAL PHOTOGRAPHY



Premise

Preliminary Contamination Investigation

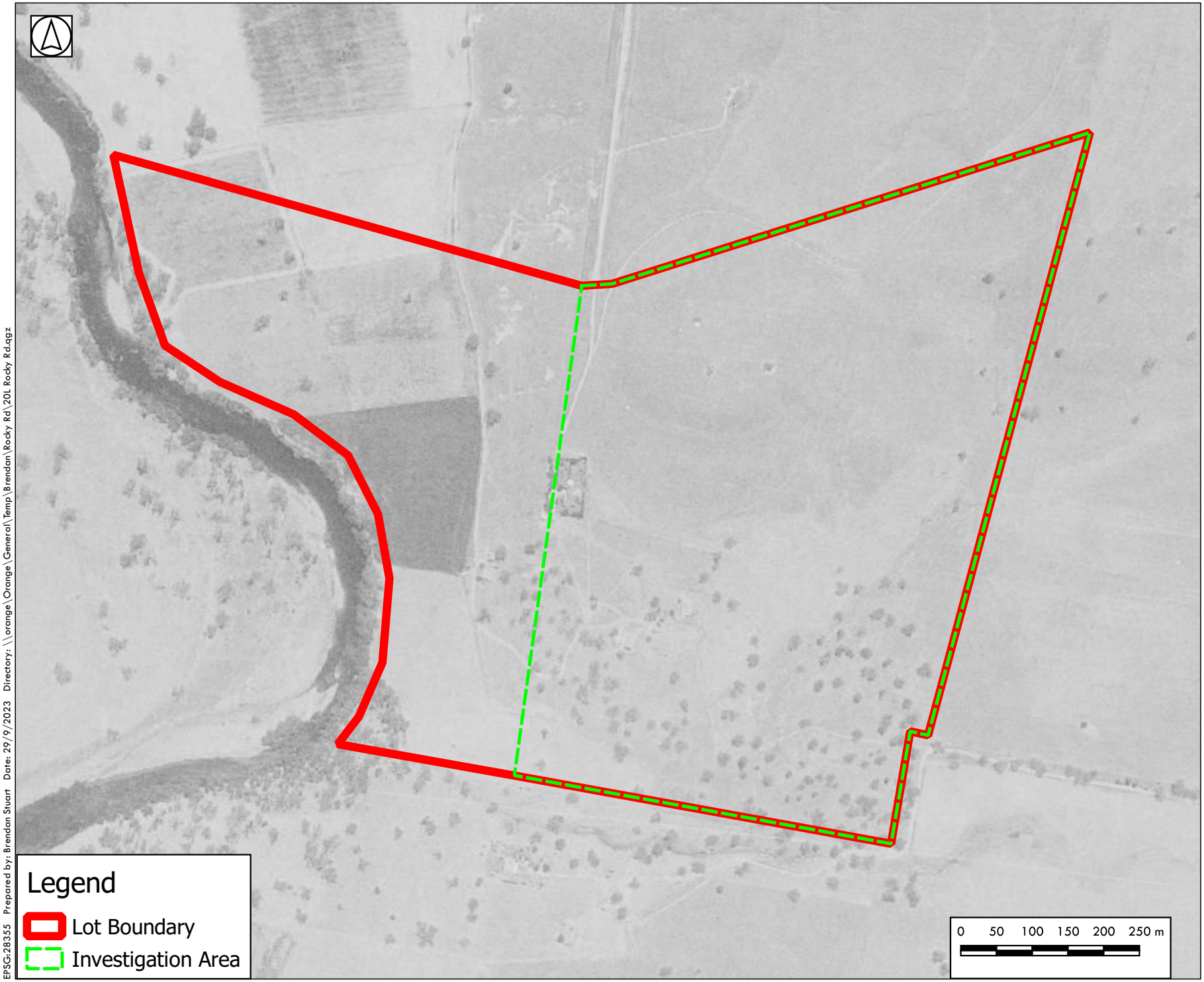
HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

1964

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

EPSG:28355 Prepared by: Brendan Stuart Date: 29/9/2023 Directory: \\orange\Orange\General\Temp\Brendan\Rocky Rd\20L Rocky Rd.qgz



Premise

Preliminary Contamination Investigation

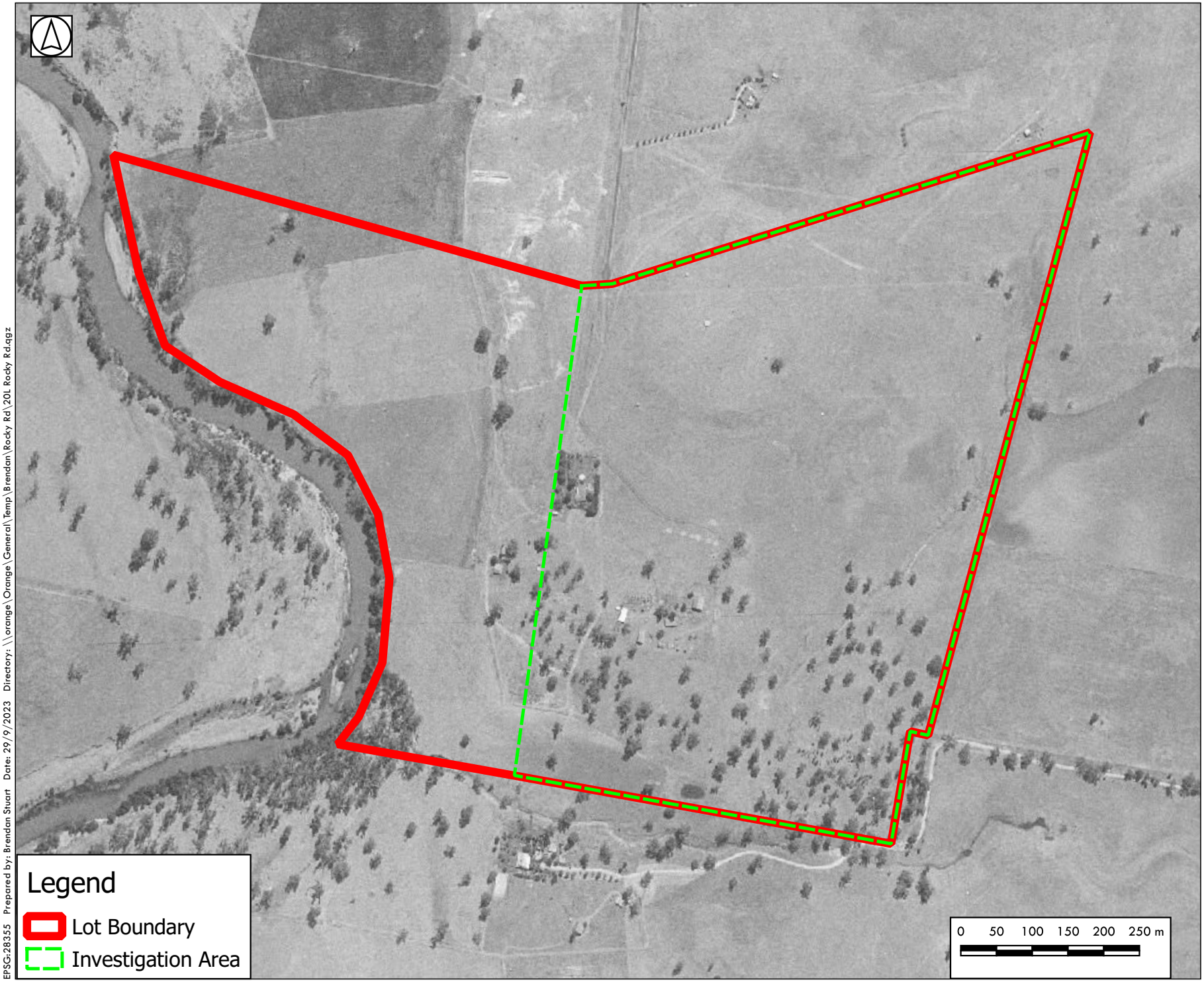
HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

1980

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

EPSG:28355 Prepared by: Brendan Stuart Date: 29/9/2023 Directory: \\orange\Orange\General\Temp\Brendan\Rocky Rd\20L Rocky Rd.qgz



Premise

Preliminary Contamination Investigation

HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

1991

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

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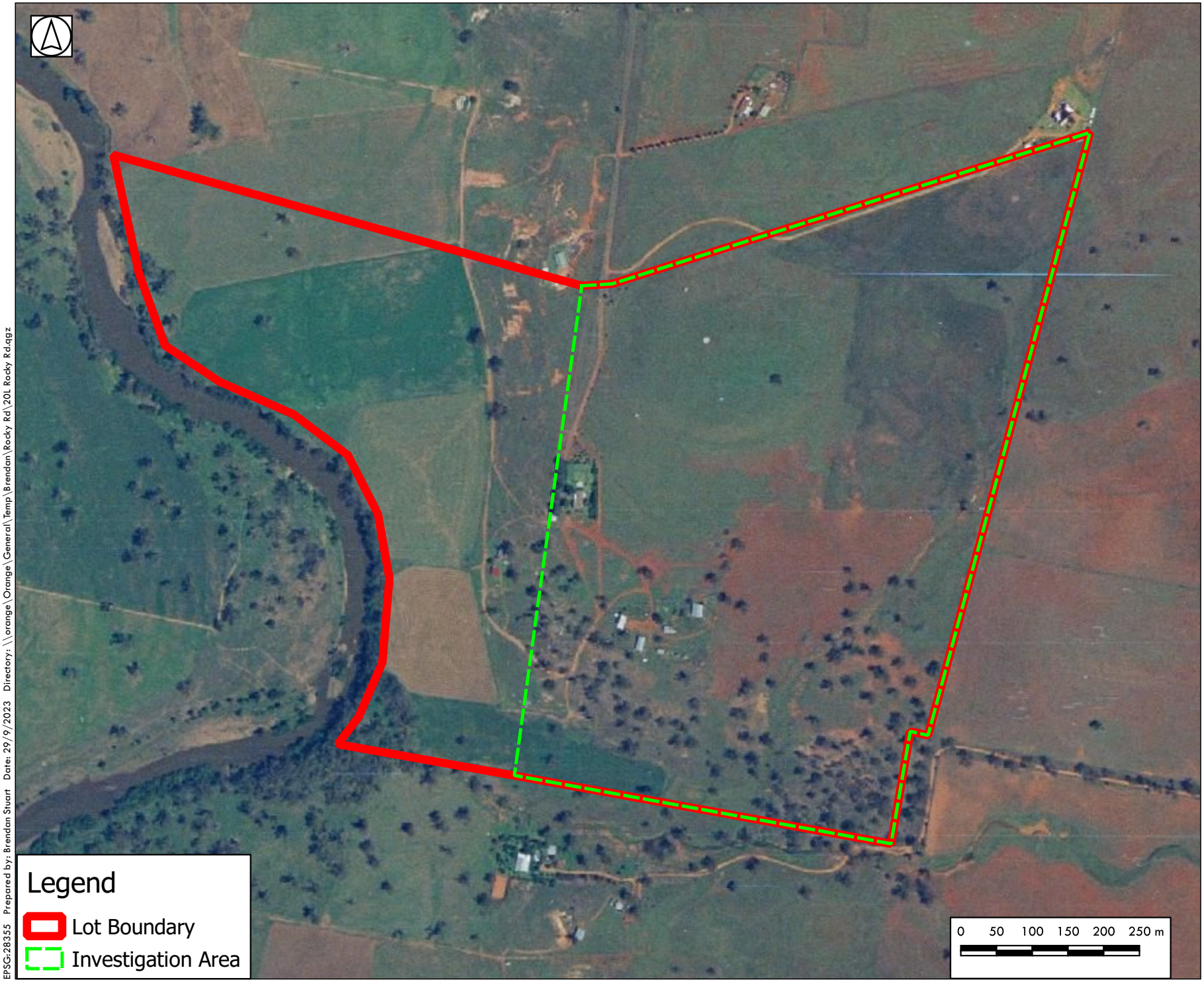

Premise

Preliminary Contamination Investigation

HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

1995

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

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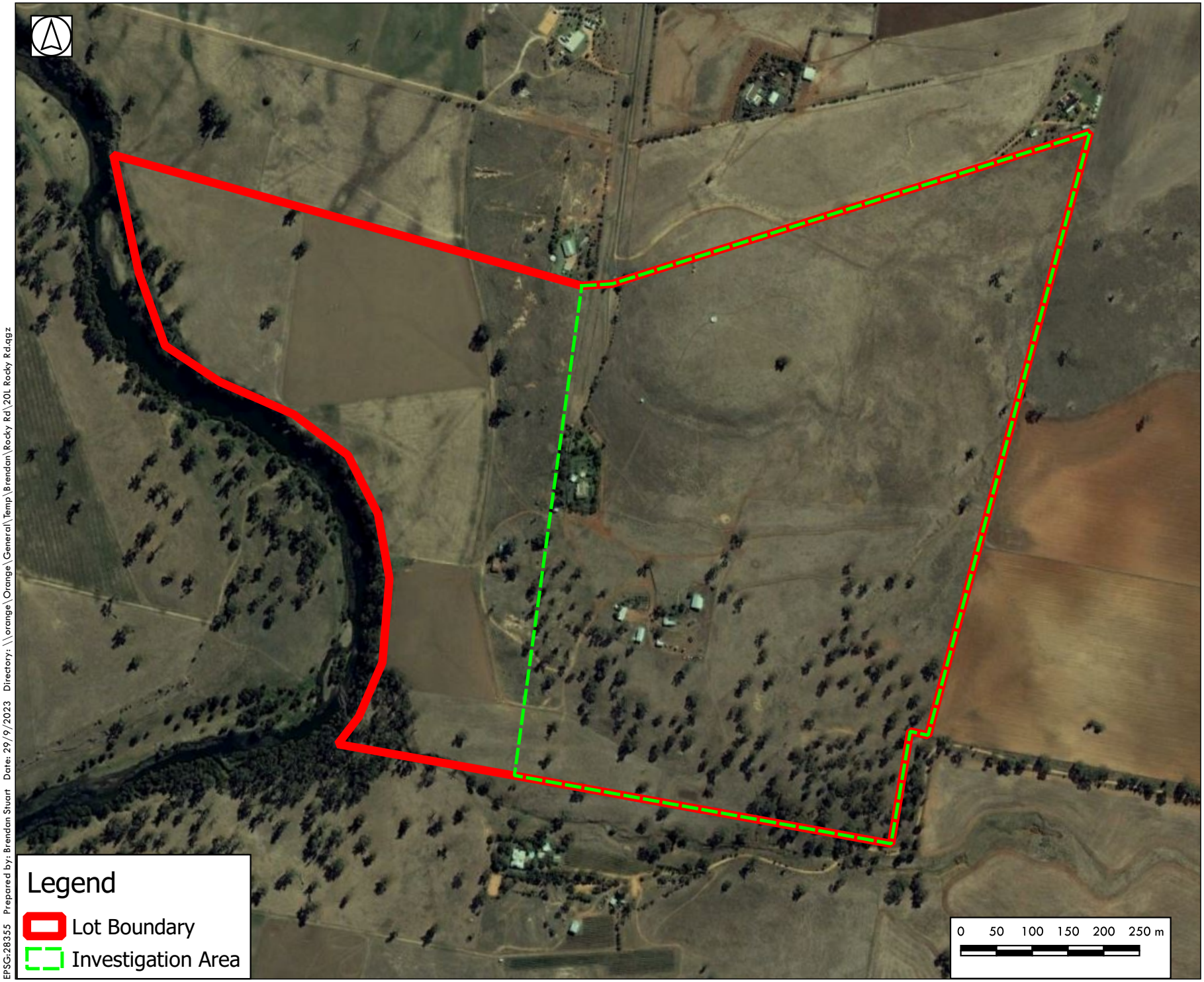

Premise

Preliminary Contamination Investigation

HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

2006

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

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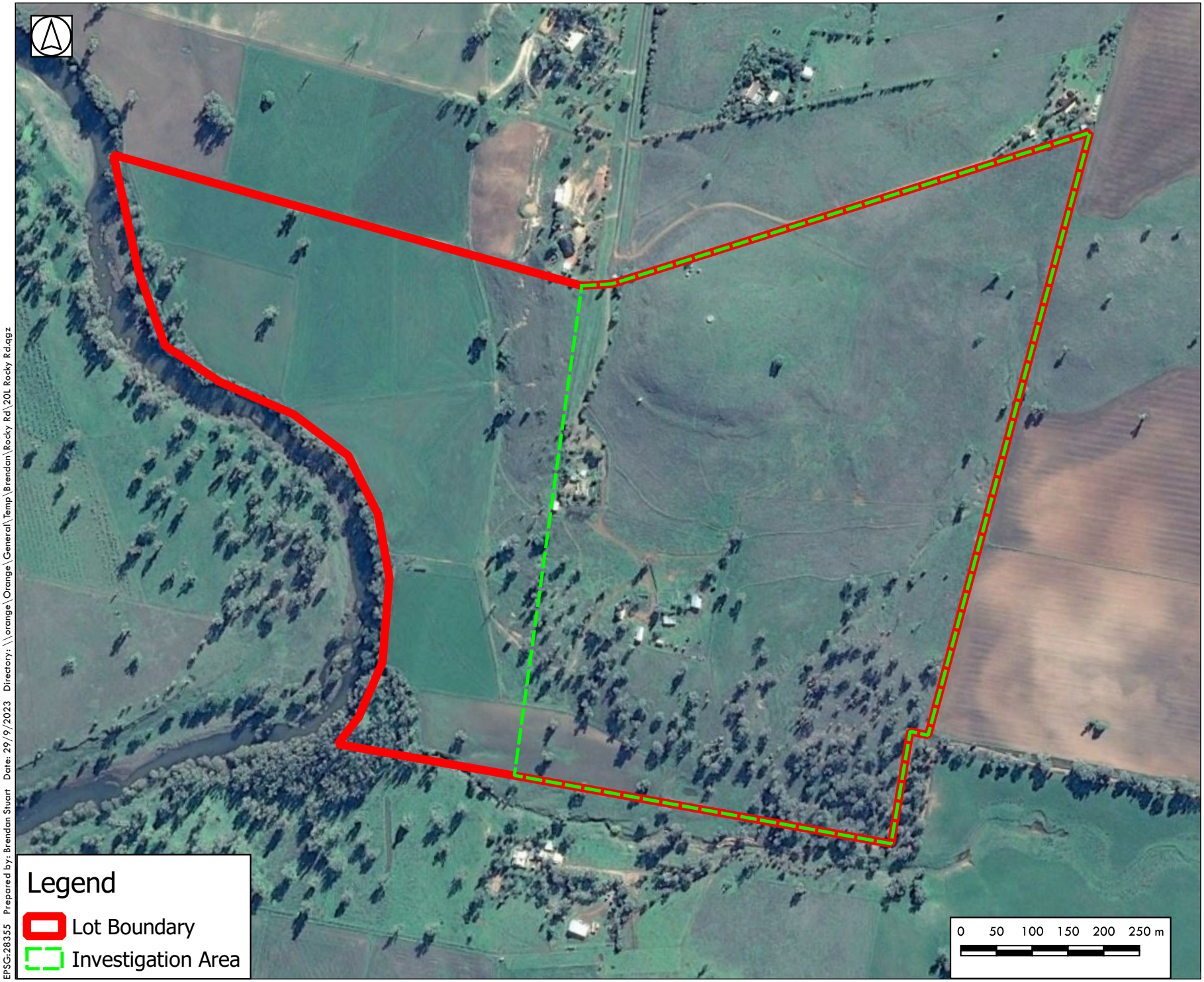

Premise

Preliminary Contamination Investigation

HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

2016

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

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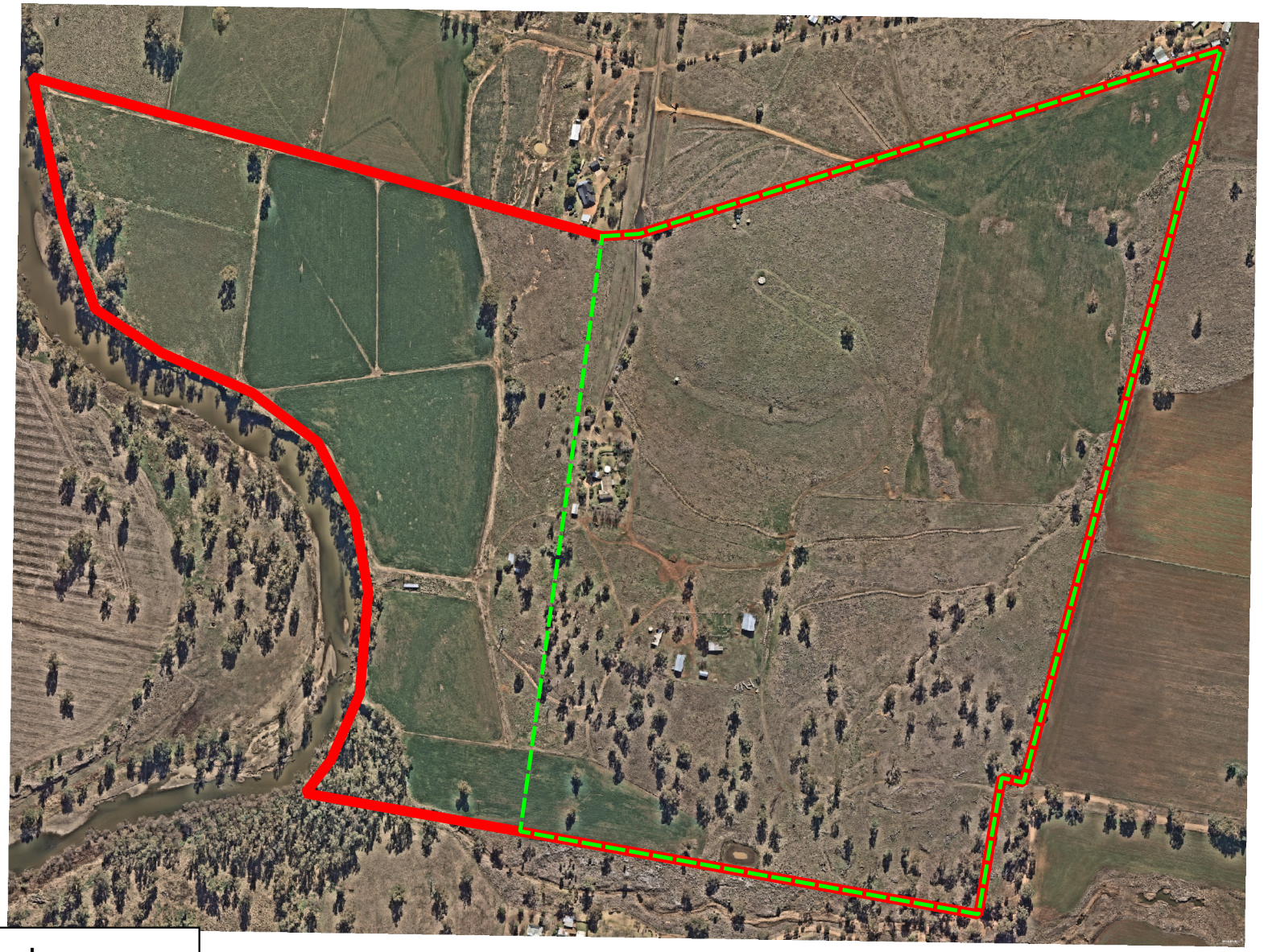

Legend

Lot Boundary

Investigation Area

0 50 100 150 200 250 m

Premise

Preliminary Contamination Investigation

HISTORIC AERIAL IMAGERY

20L Rocky Rd, Dubbo

2023

Source: NSW SixMap (Imagery); NSW LPI (Cadastre)

EPSG:28355 Prepared by: Brendan Stuart Date: 29/9/2023 Directory: \\orange\Orange\General\Temp\Brendan\Rocky Rd\20L Rocky Rd.qgz

APPENDIX D

ANALYTICAL CERTIFICATES

CERTIFICATE OF ANALYSIS

Work Order	: **ES2329175**	Page	: 1 of 26
Client	: **PREMISE NSW Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: B STUART	Contact	: Customer Services ES
Address	: 154 Peisley St, Orange 2800	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: 123050 RRD	Date Samples Received	: 29-Aug-2023 09:30
Order number	: ----	Date Analysis Commenced	: 31-Aug-2023
C-O-C number	: ----	Issue Date	: 06-Sep-2023 09:50
Sampler	: B. Searl		
Site	: ----		
Quote number	: EN/222		
No. of samples received	: 30		
No. of samples analysed	: 23		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Evie Sidarta	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP202 :Particular samples required dilution due to sample matrix. LOR values have been adjusted accordingly.
- EP202: Poor matrix spike recovery has been detected due to sample matrix interferences.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	S1 Sample ID: SS_1	S3 Sample ID: SS_3	S5 Sample ID: SS_5	S8 Sample ID: SS_8	S9 Sample ID: SS_9
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-001	ES2329175-003	ES2329175-005	ES2329175-008	ES2329175-009
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**13.9**	**24.8**	**7.9**	**13.2**	**6.7**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	----	----	<5	----	----
Barium	7440-39-3	10	mg/kg	----	----	**220**	----	----
Beryllium	7440-41-7	1	mg/kg	----	----	<1	----	----
Boron	7440-42-8	50	mg/kg	----	----	<50	----	----
Cadmium	7440-43-9	1	mg/kg	----	----	<1	----	----
Chromium	7440-47-3	2	mg/kg	----	----	**122**	----	----
Cobalt	7440-48-4	2	mg/kg	----	----	**34**	----	----
Copper	7440-50-8	5	mg/kg	----	----	**41**	----	----
Lead	7439-92-1	5	mg/kg	----	----	**6**	----	----
Manganese	7439-96-5	5	mg/kg	----	----	**1120**	----	----
Nickel	7440-02-0	2	mg/kg	----	----	**100**	----	----
Selenium	7782-49-2	5	mg/kg	----	----	<5	----	----
Vanadium	7440-62-2	5	mg/kg	----	----	**122**	----	----
Zinc	7440-66-6	5	mg/kg	----	----	**59**	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	----	<0.1	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S1 Sample ID: SS_1	S3 Sample ID: SS_3	S5 Sample ID: SS_5	S8 Sample ID: SS_8	S9 Sample ID: SS_9
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-001	ES2329175-003	ES2329175-005	ES2329175-008	ES2329175-009
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4-DB	94-82-6	0.02	mg/kg		----	<0.02	<0.04	<0.02	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S1 Sample ID: SS_1	S3 Sample ID: SS_3	S5 Sample ID: SS_5	S8 Sample ID: SS_8	S9 Sample ID: SS_9
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-001	ES2329175-003	ES2329175-005	ES2329175-008	ES2329175-009
					Result	Result	Result	Result	Result
EP202A: Phenoxyacetic Acid Herbicides by LCMS - Continued									
Dicamba	1918-00-9	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Mecoprop	93-65-2	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
MCPA	94-74-6	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4-DP	120-36-5	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4-D	94-75-7	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Triclopyr	55335-06-3	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
2.4.5-T	93-76-5	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
MCPB	94-81-5	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Picloram	1918-02-1	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Clopyralid	1702-17-6	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
Fluroxypyr	69377-81-7	0.02	mg/kg		----	<0.02	<0.04	<0.02	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**77.4**	**75.9**	**84.0**	**94.2**	**104**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**73.2**	**74.5**	**86.9**	**106**	**104**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		----	**53.3**	**66.9**	**65.6**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**8.0**	**9.8**	**17.9**	**12.4**	**10.2**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	----	----	<5	<5	<5
Barium	7440-39-3	10	mg/kg	----	----	**90**	**90**	**120**
Beryllium	7440-41-7	1	mg/kg	----	----	**1**	<1	<1
Boron	7440-42-8	50	mg/kg	----	----	<50	<50	<50
Cadmium	7440-43-9	1	mg/kg	----	----	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	----	----	**86**	**173**	**76**
Cobalt	7440-48-4	2	mg/kg	----	----	**31**	**23**	**30**
Copper	7440-50-8	5	mg/kg	----	----	**28**	**25**	**29**
Lead	7439-92-1	5	mg/kg	----	----	**11**	**12**	**13**
Manganese	7439-96-5	5	mg/kg	----	----	**335**	**537**	**1040**
Nickel	7440-02-0	2	mg/kg	----	----	**52**	**52**	**40**
Selenium	7782-49-2	5	mg/kg	----	----	<5	<5	<5
Vanadium	7440-62-2	5	mg/kg	----	----	**91**	**122**	**81**
Zinc	7440-66-6	5	mg/kg	----	----	**288**	**276**	**63**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	----	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		----	----	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		----	----	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		----	----	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		----	----	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		----	----	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	<10	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		----	----	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		----	----	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		----	----	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		----	----	<50	<50	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		----	----	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		----	----	<0.2	<0.2	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		----	----	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		----	----	<1	<1	<1
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.02	<0.02	----	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.02	<0.02	----	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.02	<0.02	----	----	----
MCPA	94-74-6	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.02	<0.02	----	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.02	<0.02	----	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.02	<0.02	----	----	----
MCPB	94-81-5	0.02	mg/kg		<0.02	<0.02	----	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.02	<0.02	----	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.02	<0.02	----	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.02	<0.02	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**104**	**76.3**	**89.4**	**113**	**109**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**108**	**78.6**	**85.0**	**119**	**108**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	**83.9**	**86.4**	**87.3**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	**90.1**	**96.3**	**87.5**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	**69.1**	**54.7**	**51.8**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	**95.2**	**102**	**94.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	S10 Sample ID: SS_10	S11 Sample ID: SS_11	J1 Sample ID: JS_1	J2 Sample ID: JS_2	J3 Sample ID: JS_3
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-010	ES2329175-011	ES2329175-012	ES2329175-013	ES2329175-014
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%		**----**	**----**	**98.7**	**92.8**	**90.6**
4-Terphenyl-d14	1718-51-0	0.5	%		**----**	**----**	**105**	**101**	**100**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**----**	**----**	**85.1**	**92.8**	**79.1**
Toluene-D8	2037-26-5	0.2	%		**----**	**----**	**91.8**	**92.7**	**78.8**
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**----**	**73.0**	**101**	**84.0**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		**74.1**	**57.9**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**8.8**	**14.0**	**9.2**	**15.2**	**9.9**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	**29**	<5
Barium	7440-39-3	10	mg/kg	**340**	**310**	**80**	**70**	**80**
Beryllium	7440-41-7	1	mg/kg	<1	**2**	<1	<1	<1
Boron	7440-42-8	50	mg/kg	<50	<50	<50	<50	<50
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	**115**	**294**	**114**	**163**	**26**
Cobalt	7440-48-4	2	mg/kg	**64**	**70**	**18**	**25**	**10**
Copper	7440-50-8	5	mg/kg	**29**	**41**	**16**	**31**	**9**
Lead	7439-92-1	5	mg/kg	**15**	**29**	**8**	**10**	**6**
Manganese	7439-96-5	5	mg/kg	**1520**	**1440**	**451**	**370**	**405**
Nickel	7440-02-0	2	mg/kg	**69**	**89**	**35**	**63**	**15**
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Vanadium	7440-62-2	5	mg/kg	**103**	**137**	**66**	**135**	**28**
Zinc	7440-66-6	5	mg/kg	**62**	**1610**	**100**	**94**	**84**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Endosulfan (sum)**	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	<50	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.04	----	<0.02	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.04	----	<0.02	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.04	----	<0.02	----	----
MCPA	94-74-6	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.04	----	<0.02	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.04	----	<0.02	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.04	----	<0.02	----	----
MCPB	94-81-5	0.02	mg/kg		<0.04	----	<0.02	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.04	----	<0.02	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.04	----	<0.02	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.04	----	<0.02	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**91.4**	**81.0**	**79.0**	**107**	**92.9**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**75.3**	**71.8**	**80.7**	**107**	**91.1**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**82.7**	**95.0**	**84.7**	**89.8**	**96.7**
2-Chlorophenol-D4	93951-73-6	0.5	%		**89.2**	**80.6**	**93.2**	**90.5**	**88.4**
2.4.6-Tribromophenol	118-79-6	0.5	%		**52.6**	**52.5**	**50.2**	**50.2**	**50.1**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**94.9**	**101**	**98.2**	**98.1**	**99.9**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J4 Sample ID: JS_4	J5 Sample ID: JS_5	J6 Sample ID: JS_6	J7 Sample ID: JS_7	J8 Sample ID: JS_8
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-015	ES2329175-016	ES2329175-017	ES2329175-018	ES2329175-019
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%		**95.8**	**96.1**	**93.7**	**92.9**	**88.3**
4-Terphenyl-d14	1718-51-0	0.5	%		**105**	**104**	**102**	**102**	**100**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**78.3**	**72.0**	**89.8**	**84.5**	**90.5**
Toluene-D8	2037-26-5	0.2	%		**75.3**	**69.7**	**87.9**	**75.1**	**88.9**
4-Bromofluorobenzene	460-00-4	0.2	%		**82.0**	**76.4**	**93.4**	**86.4**	**93.8**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		**66.6**	**----**	**71.7**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit	ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	13.3	19.7	13.7	8.5	18.3
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Barium	7440-39-3	10	mg/kg	250	350	80	270	230
Beryllium	7440-41-7	1	mg/kg	<1	<1	<1	<1	<1
Boron	7440-42-8	50	mg/kg	<50	<50	<50	<50	<50
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	2	<1
Chromium	7440-47-3	2	mg/kg	72	108	238	131	92
Cobalt	7440-48-4	2	mg/kg	26	50	20	48	32
Copper	7440-50-8	5	mg/kg	33	48	62	42	47
Lead	7439-92-1	5	mg/kg	13	<5	<5	6	13
Manganese	7439-96-5	5	mg/kg	1220	1670	380	1640	904
Nickel	7440-02-0	2	mg/kg	47	129	120	112	87
Selenium	7782-49-2	5	mg/kg	<5	<5	<5	<5	<5
Vanadium	7440-62-2	5	mg/kg	68	156	194	131	102
Zinc	7440-66-6	5	mg/kg	473	70	43	76	98
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		**100**	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		**100**	<50	<50	<50	<50
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	<50	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		----	----	<0.02	----	----
2.4-DB	94-82-6	0.02	mg/kg		----	----	<0.02	----	----
Dicamba	1918-00-9	0.02	mg/kg		----	----	<0.02	----	----
Mecoprop	93-65-2	0.02	mg/kg		----	----	<0.02	----	----
MCPA	94-74-6	0.02	mg/kg		----	----	<0.02	----	----
2.4-DP	120-36-5	0.02	mg/kg		----	----	<0.02	----	----
2.4-D	94-75-7	0.02	mg/kg		----	----	<0.02	----	----
Triclopyr	55335-06-3	0.02	mg/kg		----	----	<0.02	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		----	----	<0.02	----	----
2.4.5-T	93-76-5	0.02	mg/kg		----	----	<0.02	----	----
MCPB	94-81-5	0.02	mg/kg		----	----	<0.02	----	----
Picloram	1918-02-1	0.02	mg/kg		----	----	<0.02	----	----
Clopyralid	1702-17-6	0.02	mg/kg		----	----	<0.02	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		----	----	<0.02	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**103**	**93.0**	**92.9**	**109**	**102**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**99.6**	**88.6**	**90.0**	**98.8**	**102**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**102**	**94.7**	**83.9**	**98.5**	**91.1**
2-Chlorophenol-D4	93951-73-6	0.5	%		**98.1**	**103**	**90.8**	**91.8**	**91.2**
2.4.6-Tribromophenol	118-79-6	0.5	%		**53.9**	**50.0**	**48.1**	**50.4**	**50.6**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**96.2**	**99.8**	**101**	**99.1**	**102**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J9 Sample ID: JS_9	J10 Sample ID: JS_10	J11 Sample ID: JS_11	J12 Sample ID: JS_12	J13 Sample ID: JS_13
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00
Compound	CAS Number	LOR	Unit		ES2329175-020	ES2329175-021	ES2329175-022	ES2329175-023	ES2329175-024
					Result	Result	Result	Result	Result
EP075(SIM)T: PAH Surrogates - Continued									
Anthracene-d10	1719-06-8	0.5	%		**93.6**	**90.9**	**93.8**	**91.1**	**93.3**
4-Terphenyl-d14	1718-51-0	0.5	%		**104**	**104**	**106**	**104**	**106**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**83.4**	**79.4**	**76.3**	**71.1**	**75.1**
Toluene-D8	2037-26-5	0.2	%		**83.8**	**78.9**	**75.9**	**68.2**	**75.4**
4-Bromofluorobenzene	460-00-4	0.2	%		**89.2**	**83.5**	**83.8**	**80.3**	**84.0**
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%		**----**	**----**	**58.9**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**27.4**	**7.8**	**13.4**	**----**	**----**
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	**9**	**----**	**----**
Barium	7440-39-3	10	mg/kg		**260**	**30**	**40**	**----**	**----**
Beryllium	7440-41-7	1	mg/kg		**1**	<1	<1	**----**	**----**
Boron	7440-42-8	50	mg/kg		<50	<50	<50	**----**	**----**
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	**----**	**----**
Chromium	7440-47-3	2	mg/kg		**106**	**24**	**155**	**----**	**----**
Cobalt	7440-48-4	2	mg/kg		**29**	**10**	**3**	**----**	**----**
Copper	7440-50-8	5	mg/kg		**59**	**10**	**42**	**----**	**----**
Lead	7439-92-1	5	mg/kg		**10**	**7**	<5	**----**	**----**
Manganese	7439-96-5	5	mg/kg		**591**	**73**	**41**	**----**	**----**
Nickel	7440-02-0	2	mg/kg		**97**	**16**	**43**	**----**	**----**
Selenium	7782-49-2	5	mg/kg		<5	<5	<5	**----**	**----**
Vanadium	7440-62-2	5	mg/kg		**116**	**32**	**152**	**----**	**----**
Zinc	7440-66-6	5	mg/kg		**100**	**17**	**12**	**----**	**----**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	**----**	**----**
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
				Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
					Result	Result	Result	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	----	----	----
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.04	<0.02	----	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.04	<0.02	----	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.04	<0.02	----	----	----
MCPA	94-74-6	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.04	<0.02	----	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.04	<0.02	----	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.04	<0.02	----	----	----
MCPB	94-81-5	0.02	mg/kg		<0.04	<0.02	----	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.04	<0.02	----	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.04	<0.02	----	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.04	<0.02	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**128**	**82.8**	**111**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**123**	**79.1**	**105**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**92.1**	**83.8**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**99.6**	**89.0**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**50.7**	**54.5**	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**104**	**93.8**	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**89.7**	**94.1**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	J14 Sample ID: JS_14	J15 Sample ID: JS_15	J11_B Sample ID: JS_11_B	----	----
			Sampling date / time	24-Aug-2023 00:00	24-Aug-2023 00:00	24-Aug-2023 00:00	----	----
Compound	CAS Number	LOR	Unit	ES2329175-025	ES2329175-026	ES2329175-030	--------	--------
				Result	Result	Result	----	----
EP075(SIM)T: PAH Surrogates - Continued								
4-Terphenyl-d14	1718-51-0	0.5	%	**103**	**109**	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.2	%	**78.5**	**81.7**	----	----	----
Toluene-D8	2037-26-5	0.2	%	**77.5**	**79.2**	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%	**78.7**	**84.6**	----	----	----
EP202S: Phenoxyacetic Acid Herbicide Surrogate								
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.02	%	**98.7**	**68.2**	----	----	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131
EP202S: Phenoxyacetic Acid Herbicide Surrogate			
2.4-Dichlorophenyl Acetic Acid	19719-28-9	45	139

APPENDIX E

ANALYTICAL LABORATORY QA/QC & CHAIN OF CUSTODY DOCUMENTS

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2329175**

Client	: **PREMISE NSW Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: B STUART	Contact	: Customer Services ES
Address	: 154 Peisley St, Orange 2800	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: bstuart@geolyse.com	E-mail	: ALSEnviro.Sydney@ALSGlobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: 123050 RRD	Page	: 1 of 4
Order number	: ----	Quote number	: ES2019PREMIS0001 (EN/222)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: B. Searl		

Dates

Date Samples Received	: 29-Aug-2023 09:30	Issue Date	: 31-Aug-2023
Client Requested Due Date	: 05-Sep-2023	Scheduled Reporting Date	: **05-Sep-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 14.7'C, 14.8'C, 13.9'C - Ice Bricks present
Receipt Detail	: HARD ESKY	No. of samples received / analysed	: 30 / 23

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Asbestos analysis cannot be conducted on sample #13 'J2' as no asbestos bag was received.**
- **Asbestos analysis cannot be conducted on sample #17 'J6' as no asbestos bag was received for this sample.**
- **Asbestos analysis cannot be conducted on sample #19 'J8' as no asbestos bag was received for this sample.**
- **Asbestos analysis cannot be conducted on sample #20 'J9' as no asbestos bag was received for this sample.**
- **Asbestos analysis cannot be conducted on sample #22 'J11' as not asbestos bag was received for this container.**
- **Sample #24 'J13' is unable to have asbestos analysis conducted due to not receiving an asbestos bag.**
- **Sample #26 'J15' is unable to have asbestos analysis conducted due to not receiving an asbestos bag.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

ES2329175-001	[24-Aug-2023]	S1 - Sample ID: SS_1
ES2329175-002	[24-Aug-2023]	S2 - Sample ID: SS_2
ES2329175-003	[24-Aug-2023]	S3 - Sample ID: SS_3
ES2329175-004	[24-Aug-2023]	S4 - Sample ID: SS_4
ES2329175-005	[24-Aug-2023]	S5 - Sample ID: SS_5
ES2329175-006	[24-Aug-2023]	S6 - Sample ID: SS_6
ES2329175-007	[24-Aug-2023]	S7 - Sample ID: SS_7
ES2329175-008	[24-Aug-2023]	S8 - Sample ID: SS_8
ES2329175-009	[24-Aug-2023]	S9 - Sample ID: SS_9
ES2329175-010	[24-Aug-2023]	S10 - Sample ID: SS_10
ES2329175-011	[24-Aug-2023]	S11 - Sample ID: SS_11
ES2329175-012	[24-Aug-2023]	J1 - Sample ID: JS_1
ES2329175-013	[24-Aug-2023]	J2 - Sample ID: JS_2
ES2329175-014	[24-Aug-2023]	J3 - Sample ID: JS_3
ES2329175-015	[24-Aug-2023]	J4 - Sample ID: JS_4
ES2329175-016	[24-Aug-2023]	J5 - Sample ID: JS_5
ES2329175-017	[24-Aug-2023]	J6 - Sample ID: JS_6
ES2329175-018	[24-Aug-2023]	J7 - Sample ID: JS_7
ES2329175-019	[24-Aug-2023]	J8 - Sample ID: JS_8
ES2329175-020	[24-Aug-2023]	J9 - Sample ID: JS_9
ES2329175-021	[24-Aug-2023]	J10 - Sample ID: JS_10
ES2329175-022	[24-Aug-2023]	J11 - Sample ID: JS_11
ES2329175-023	[24-Aug-2023]	J12 - Sample ID: JS_12
ES2329175-024	[24-Aug-2023]	J13 - Sample ID: JS_13
ES2329175-025	[24-Aug-2023]	J14 - Sample ID: JS_14
ES2329175-026	[24-Aug-2023]	J15 - Sample ID: JS_15
ES2329175-027	[24-Aug-2023]	J8_B - Sample ID: JS_8_B
ES2329175-028	[24-Aug-2023]	J5_B - Sample ID: JS_5_B
ES2329175-029	[24-Aug-2023]	J7_B - Sample ID: JS_7_B
ES2329175-030	[24-Aug-2023]	J11_B - Sample ID: JS_11_B

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EP202(solids) Phenoxyacetic acids	SOIL - S-03 15 Metals (NEPM 2013 Suite - incl. Digestion)	SOIL - S-07 TRH/BTEXN/PAH (SIM)	SOIL - S-12 OC/OP Pesticides
ES2329175-001	24-Aug-2023 00:00	S1 Sample ID: SS_1		✓				✓
ES2329175-002	24-Aug-2023 00:00	S2 Sample ID: SS_2	✓					
ES2329175-003	24-Aug-2023 00:00	S3 Sample ID: SS_3		✓	✓			✓
ES2329175-004	24-Aug-2023 00:00	S4 Sample ID: SS_4	✓					
ES2329175-005	24-Aug-2023 00:00	S5 Sample ID: SS_5		✓	✓	✓		✓
ES2329175-006	24-Aug-2023 00:00	S6 Sample ID: SS_6	✓					
ES2329175-007	24-Aug-2023 00:00	S7 Sample ID: SS_7	✓					
ES2329175-008	24-Aug-2023 00:00	S8 Sample ID: SS_8		✓	✓			✓

			(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content	SOIL - EP202(solids) Phenoxyacetic acids	SOIL - S-03 15 Metals (NEPM 2013 Suite - incl. Digestion)	SOIL - S-07 TRH/BTEXN/PAH (SIM)	SOIL - S-12 OC/OP Pesticides
ES2329175-009	24-Aug-2023 00:00	S9 Sample ID: SS_9		✓				✓
ES2329175-010	24-Aug-2023 00:00	S10 Sample ID: SS_10		✓	✓			✓
ES2329175-011	24-Aug-2023 00:00	S11 Sample ID: SS_11		✓	✓			✓
ES2329175-012	24-Aug-2023 00:00	J1 Sample ID: JS_1		✓		✓	✓	✓
ES2329175-013	24-Aug-2023 00:00	J2 Sample ID: JS_2		✓		✓	✓	✓
ES2329175-014	24-Aug-2023 00:00	J3 Sample ID: JS_3		✓		✓	✓	✓
ES2329175-015	24-Aug-2023 00:00	J4 Sample ID: JS_4		✓	✓	✓	✓	✓
ES2329175-016	24-Aug-2023 00:00	J5 Sample ID: JS_5		✓		✓	✓	✓
ES2329175-017	24-Aug-2023 00:00	J6 Sample ID: JS_6		✓	✓	✓	✓	✓
ES2329175-018	24-Aug-2023 00:00	J7 Sample ID: JS_7		✓		✓	✓	✓
ES2329175-019	24-Aug-2023 00:00	J8 Sample ID: JS_8		✓		✓	✓	✓
ES2329175-020	24-Aug-2023 00:00	J9 Sample ID: JS_9		✓		✓	✓	✓
ES2329175-021	24-Aug-2023 00:00	J10 Sample ID: JS_10		✓		✓	✓	✓
ES2329175-022	24-Aug-2023 00:00	J11 Sample ID: JS_11		✓	✓	✓	✓	✓
ES2329175-023	24-Aug-2023 00:00	J12 Sample ID: JS_12		✓		✓	✓	✓
ES2329175-024	24-Aug-2023 00:00	J13 Sample ID: JS_13		✓		✓	✓	✓
ES2329175-025	24-Aug-2023 00:00	J14 Sample ID: JS_14		✓	✓	✓	✓	✓
ES2329175-026	24-Aug-2023 00:00	J15 Sample ID: JS_15		✓	✓	✓	✓	✓
ES2329175-027	24-Aug-2023 00:00	J8_B Sample ID: JS_...	✓					
ES2329175-028	24-Aug-2023 00:00	J5_B Sample ID: JS_...	✓					
ES2329175-029	24-Aug-2023 00:00	J7_B Sample ID: JS_...	✓					
ES2329175-030	24-Aug-2023 00:00	J11_B Sample ID: JS...		✓		✓		✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

B STUART

- *AU Certificate of Analysis - NATA (COA)	Email	bstuart@geolyse.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	bstuart@geolyse.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	bstuart@geolyse.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	bstuart@geolyse.com
- A4 - AU Tax Invoice (INV)	Email	bstuart@geolyse.com
- Chain of Custody (CoC) (COC)	Email	bstuart@geolyse.com
- EDI Format - ENMRG (ENMRG)	Email	bstuart@geolyse.com
- EDI Format - ESDAT (ESDAT)	Email	bstuart@geolyse.com

INVOICES Accounts

- A4 - AU Tax Invoice (INV)	Email	accounts@premise.com.au

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2329175**	Page	: 1 of 9
Client	: **PREMISE NSW Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: B STUART	Telephone	: +61-2-8784 8555
Project	: 123050 RRD	Date Samples Received	: 29-Aug-2023
Site	: ----	Issue Date	: 06-Sep-2023
Sampler	: B. Searl	No. of samples received	: 30
Order number	: ----	No. of samples analysed	: 23

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP080/071: Total Petroleum Hydrocarbons	ES2329175--012	J1 Sample ID: JS_1	**C29 - C36 Fraction**	----	135 %	52.0-132%	**Recovery greater than upper data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**Mecoprop**	93-65-2	53.8 %	60.0-140%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**MCPA**	94-74-6	51.6 %	57.0-143%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**2.4-D**	94-75-7	49.8 %	68.0-139%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**2.4.5-T**	93-76-5	42.7 %	57.0-142%	**Recovery less than lower data quality objective**
EP202A: Phenoxyacetic Acid Herbicides by LCMS	EM2315418--001	Anonymous	**Clopyralid**	1702-17-6	27.0 %	49.0-149%	**Recovery less than lower data quality objective**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
J1 - Sample ID: JS_1,	J2 - Sample ID: JS_2,	**24-Aug-2023**	**----**	----	----	**01-Sep-2023**	07-Sep-2023	✓
J3 - Sample ID: JS_3,	J4 - Sample ID: JS_4,							
J5 - Sample ID: JS_5,	J6 - Sample ID: JS_6,							
J7 - Sample ID: JS_7,	J8 - Sample ID: JS_8,							
J9 - Sample ID: JS_9,	J10 - Sample ID: JS_10,							
J11 - Sample ID: JS_11,	J12 - Sample ID: JS_12,							
J13 - Sample ID: JS_13,	J14 - Sample ID: JS_14,							
J15 - Sample ID: JS_15,	J11_B - Sample ID: JS_11_B							
Soil Glass Jar - Unpreserved (EA055)								
S1 - Sample ID: SS_1,	S3 - Sample ID: SS_3,	**24-Aug-2023**	**----**	----	----	**04-Sep-2023**	07-Sep-2023	✓
S5 - Sample ID: SS_5,	S8 - Sample ID: SS_8,							
S9 - Sample ID: SS_9,	S10 - Sample ID: SS_10,							
S11 - Sample ID: SS_11								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**01-Sep-2023**	20-Feb-2024	✓	**04-Sep-2023**	20-Feb-2024	✓
Soil Glass Jar - Unpreserved (EG005T)							
S5 - Sample ID: SS_5	**24-Aug-2023**	**04-Sep-2023**	20-Feb-2024	✓	**04-Sep-2023**	20-Feb-2024	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**01-Sep-2023**	21-Sep-2023	✓	**05-Sep-2023**	21-Sep-2023	✓
Soil Glass Jar - Unpreserved (EG035T)							
S5 - Sample ID: SS_5	**24-Aug-2023**	**04-Sep-2023**	21-Sep-2023	✓	**05-Sep-2023**	21-Sep-2023	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068)							
S1 - Sample ID: SS_1, S3 - Sample ID: SS_3, S8 - Sample ID: SS_8, S9 - Sample ID: SS_9, S10 - Sample ID: SS_10, S11 - Sample ID: SS_11, J1 - Sample ID: JS_1, J2 - Sample ID: JS_2	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP068)							
S5 - Sample ID: SS_5, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**05-Sep-2023**	12-Oct-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068) S1 - Sample ID: SS_1, S3 - Sample ID: SS_3, S8 - Sample ID: SS_8, S9 - Sample ID: SS_9, S10 - Sample ID: SS_10, S11 - Sample ID: SS_11, J1 - Sample ID: JS_1, J2 - Sample ID: JS_2	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP068) S5 - Sample ID: SS_5, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15, J11_B - Sample ID: JS_11_B	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**05-Sep-2023**	12-Oct-2023	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM)) J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP071) J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP080) J7 - Sample ID: JS_7, J15 - Sample ID: JS_15	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**02-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**04-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J1 - Sample ID: JS_1	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**05-Sep-2023**	07-Sep-2023	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP071) J1 - Sample ID: JS_1, J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J7 - Sample ID: JS_7, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**02-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	12-Oct-2023	✓
Soil Glass Jar - Unpreserved (EP080) J7 - Sample ID: JS_7, J15 - Sample ID: JS_15	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**02-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**04-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080) J1 - Sample ID: JS_1	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**05-Sep-2023**	07-Sep-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
J7 - Sample ID: JS_7, J15 - Sample ID: JS_15	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**02-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
J2 - Sample ID: JS_2, J3 - Sample ID: JS_3, J4 - Sample ID: JS_4, J5 - Sample ID: JS_5, J6 - Sample ID: JS_6, J8 - Sample ID: JS_8, J9 - Sample ID: JS_9, J10 - Sample ID: JS_10, J11 - Sample ID: JS_11, J12 - Sample ID: JS_12, J13 - Sample ID: JS_13, J14 - Sample ID: JS_14	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**04-Sep-2023**	07-Sep-2023	✓
Soil Glass Jar - Unpreserved (EP080)							
J1 - Sample ID: JS_1	**24-Aug-2023**	**31-Aug-2023**	07-Sep-2023	✓	**05-Sep-2023**	07-Sep-2023	✓
EP202A: Phenoxyacetic Acid Herbicides by LCMS							
Soil Glass Jar - Unpreserved (EP202)							
S3 - Sample ID: SS_3, S5 - Sample ID: SS_5, S8 - Sample ID: SS_8, S10 - Sample ID: SS_10, S11 - Sample ID: SS_11, J4 - Sample ID: JS_4, J6 - Sample ID: JS_6, J11 - Sample ID: JS_11, J14 - Sample ID: JS_14, J15 - Sample ID: JS_15	**24-Aug-2023**	**01-Sep-2023**	07-Sep-2023	✓	**04-Sep-2023**	11-Oct-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	6	59	**10.17**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	3	30	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	SOIL	In house: LCMS (Electrospray in negative mode). Residues of acid herbicides are extracted from soil samples under the alkaline condition. An aliquot of the alkaline aqueous phase is taken and acidified before a SPE cleanup. After eluting off from the SPE cartridge, residues of acid herbicides are dissolved in HPLC mobile phase prior to instrument analysis.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Extraction for Phenoxy Acid Herbicides in Soils.	EP202-PR	SOIL	In-House: Alkaline extract followed by SPE clean up of acidified portion of the sample extract.
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.

Preparation Methods	*Method*	*Matrix*	*Method Descriptions*
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.