

REMEDIATION ACTION PLAN



230 Sixth Avenue,
Part 155 Fifth Avenue and 50 Edmondson Avenue,
60 - 80 Edmondson Avenue,
Austral NSW 2179

Austral 1 Pty Ltd – February 2017



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REMEDIATION ACTION PLAN

230 Sixth Avenue
 Part 155 Fifth Avenue and 50 Edmondson Avenue
 60 - 80 Edmondson Avenue
 Austral, NSW 2179

PREPARED FOR

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1. INTRODUCTION

Geo-Logix was engaged by Vantage Property (Vantage) on behalf of Austral 1 Pty Ltd to prepare a Remediation Action Plan (RAP) for the properties located at 230 Sixth Avenue, 60 – 80 Edmondson Avenue and part 155 Fifth Avenue and 50 Edmondson Avenue, Austral NSW (Figure 1). It is understood the properties are to be subdivided for residential development (Attachment A). At the time of investigation, the properties were occupied by three residential dwellings, sheds and grassed paddocks.

Environmental investigations by Geo-Logix between September 2016 and February 2017 identified several Areas of Environmental Concern (AEC) requiring remediation in order for the site to be considered suitable for the proposed residential subdivision. The RAP provides the health and safety procedures and environmental management procedures required to remediate the site in a manner which protects public health and the environment.

The RAP also outlines remediation acceptance criteria (RAC) and sampling strategies required to validate the AEC as suitable for residential landuse. The RAP has been prepared in accordance with the 'Guidelines for Consultants Reporting on Contaminated Sites' published by the Office of Environment and Heritage.

2. OBJECTIVE

The objectives of the RAP are to:

- Define Contaminants of Potential Concern (COPC) and areas of the site requiring remediation;
- Evaluate remedial options in consideration of site conditions, logistical constraints and commercial objectives;
- Define Data Quality Objectives (DQOs) and RAC to ensure the remediated site will be suitable for the proposed use and will not present an unacceptable risk of harm to human health or the environment;
- Define remediation procedures and methodologies;
- Define remediation validation methodology;
- Establish environmental safeguards so that remediation is undertaken in an environmentally acceptable manner; and
- Define Occupational Health and Safety (OHS) requirements to protect site workers undertaking site remediation.

3. SITE DESCRIPTION

The remediation area comprises the following properties:

Street Address	Lot and Deposited Plan (DP)	Approximate Area (m ²)
230 Sixth Avenue, Austral NSW	Lot 1067 DP2475	12,140
60 - 80 Edmondson Avenue, Austral NSW	Lot A DP 416093	17,160
155 Fifth Avenue and 50 Edmondson Avenue, Austral NSW	Lot B DP 416093	13,063

3.1 Site Description

230 Sixth Avenue

The site is located within a rural residential area on the southern side of Sixth Avenue, Austral NSW. The site is accessed via Sixth Avenue and consists of one rectangular lot encompassing an area of 12,140 m². At the time of investigation, the site was occupied by a residential dwelling with landscaped gardens, a tennis court and swimming pool as well as numerous outbuildings and sheds. A fenced paddock is located in the southern portion of the site. Filling was apparent across the majority of the site.

60 – 80 Edmondson Avenue

The site is located within a rural residential area on the corner of Sixth Avenue and Edmondson Avenue, Austral NSW. The site is accessed via Edmondson Avenue and consists of one rectangular lot encompassing an area of 17,160 m². At the time of inspection, the site was occupied by two separate residential dwellings with landscaped gardens as well as several sheds and grassed paddocks.

Part 155 Fifth Avenue and 50 Edmondson Avenue

The site is located within a rural residential area on the corner of Fifth Avenue and 50 Edmondson Avenue, Austral NSW. The site is accessed via Fifth Avenue and Edmondson Avenue and encompasses an area of 13,063 m². At the time of Geo-Logix's investigation, the site was occupied by two residential dwellings with landscaped gardens and open grassed areas. A farm dam in the north east portion of 155 Fifth Avenue has been partially filled with demolition waste (including asbestos), tyres and vegetation. The dwelling and surrounds at 50 Edmondson Avenue was excluded from previous investigations and this RAP.

3.2 Surrounding Land Use

At the time of site inspection in December 2016 and February 2017, the surrounding land use comprised the following:

- **North** – Sixth Avenue with rural / residential properties and mixed agricultural use beyond;
- **East** – Edmondson Avenue with Scalabrini Retirement Village beyond;
- **South** – Fifth Avenue with rural / residential properties beyond; and
- **West** – Rural residential properties.

3.3 Geology

Review of the NSW 1:100,000 Penrith Geological Map (Geological Survey of NSW, 1991) indicates the site is situated on Wianamatta group shale characterised by shale, carbonaceous claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff.

3.4 Surface Water

The nearest surface water is an unnamed tributary of Kemps Creek, located approximately 290 m north east of the site.

3.5 Hydrogeology

It is expected that groundwater would follow the natural regional topography and generally flow north–east. Reference to the NSW Water Groundwater Works Report (NSW Government, 2016) indicates there are no registered groundwater bores within a 500 m radius of the site. The groundwater bore map is presented in Attachment B.

4. PREVIOUS INVESTIGATIONS

4.1 Geo-Logix Phase 1 Environmental Site Assessment (ESA)

Geo-Logix was commissioned to conduct a Phase 1 ESA for each individual property (Geo-Logix 2016a; Geo-Logix 2016b and Geo-Logix 2016c). The objective of the Phase I ESA's was to conduct a site inspection and collate site historical information to establish whether activities have occurred on-site which may have resulted in contamination of the land.

Review of site historical information and site inspections identified the following potential contamination sources:

230 Sixth Avenue

- Hazardous building materials;
- Fill of unknown origin;
- Vehicle / equipment maintenance; and
- Possible market gardening.

60 – 80 Edmondson Avenue

- Market gardening;
- Hazardous building materials;
- Fill of unknown origin; and
- Operation of a panel beating / spray painting business.

Part 155 Fifth Avenue and 50 Edmondson Avenue

- Market gardening;

- Hazardous building materials; and
- Fill of unknown origin;

No potential off-site sources of contamination were identified

Given the above site history Geo-Logix concluded there was a potential for soil contamination at the site and recommended further investigation be undertaken.

4.2 Geo-Logix Phase 2 Environmental Site Assessments

Geo-Logix was commissioned to conduct a Phase 2 ESA for each individual property (Geo-Logix, 2016d; Geo-Logix 2016e and Geo-Logix 2016f). In consideration of historical site uses and likely spatial distribution of COPC identified in the Phase 1 ESA, Geo-Logix undertook the following investigations between September and October 2017. Summarised analytical results are provided in Attachment C to Attachment E.

230 Sixth Avenue

To assess contamination associated with broad-scale market gardening a systematic soil investigation was completed and comprised:

- Systematic sampling across a 24 m grid-based sampling plan and collection of shallow soil samples (0 – 0.15 mbg) from 26 locations (Figure 2a); and
- In areas of suspected market gardening, native soil samples were analysed for COPC including heavy metals and organochlorine pesticides (OCPs).

To assess contamination associated with current / former sheds and corrugated ACM fence, a targeted sampling plan was completed and comprised:

- Collection of one surface soil sample from the footprint of each of the current and former sheds for laboratory analysis of asbestos and lead; and
- Collection of six surface soils samples from the base of the corrugated ACM fence. Sample collection targeted areas of damage and were analysed for asbestos.

To assess contamination associated fill of unknown origin across the site, the following was undertaken:

- Collection of fill samples at locations where systematic grid based samples fell within filled areas;
- Collection of a targeted soil samples from fill material within a stockpile located in the central portion of the site; and
- Laboratory analysis of soil samples for fill related COPC including Total Recoverable Hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), heavy metals, OCPs and asbestos.

To assess contamination associated vehicle / equipment maintenance the following was undertaken:

- Collection of two surface soil samples from the edge of the slab of the former truck shed;
- Collection of one sub slab soil sample within the truck shed; and
- Laboratory analysis of soil samples for vehicle maintenance related COPC including TRH, BTEX, Volatile Organic Compounds (VOCs), PAHs and heavy metals.

Results of the assessment identified the following contamination issues:

- Petroleum hydrocarbon impact detected at concentrations above residential assessment criteria in shallow soils at locations S17, S13, B1 and B2 in the vicinity of the shed located in the western portion of the site;
- Asbestos in the form of weathered fragments (fibrous asbestos) and as bonded fragments in shallow soil associated with asbestos cement sheet clad shed on the western portion of the site (SS1 and S5); and
- Asbestos in the form of bonded ACM in shallow fill in the south-eastern corner of the site at sample location S4;
- Asbestos as bonded ACM fragments in fill on the eastern boundary at sample location S16; and
- Asbestos as bonded ACM fragments in a garden area adjacent to a granny flat at sample location S19.

60 – 80 Edmondson Avenue

To assess contamination associated with broad-scale market gardening a systematic soil investigation was completed and comprised:

- Systematic sampling across a 24 m grid-based sampling plan and collection of shallow soil samples (0 – 0.15 mbg) from 24 locations (Figure 2b); and
- Soil samples were composited in the laboratory from two primary systematic soil samples and analysed for COPC including heavy metals and OCPs.

To assess contamination associated with filling of the former dam and soil stockpiles, a targeted sampling investigation was completed and comprised:

- Excavation of two trenches through the fill soils in the former dam to the depth of native soils (approximately 1.0 mbg); and
- Collection of 8 samples from dam fill and two soil stockpiles for laboratory analysis of fill related COPC including TRH, BTEXN, PAHs, heavy metals, OCPs and asbestos;

To assess contamination associated with former and current buildings and hazardous building materials, a targeted sampling plan was completed and comprised:

- Collection of one shallow soil sample from four separate fire pits on 80 Edmondson Avenue;
- Collection of four shallow soil samples within the vicinity of the dwelling on 60 Edmondson Avenue;
- Laboratory analysis of samples for asbestos and lead; and
- Collection of one sample from the base of an asbestos planter box for laboratory identification of asbestos.

To assess contamination associated with panel beating and spray painting operations, a targeted sampling plan was completed and comprised:

- Collection of two soil samples from shallow soils along the edge of the sheds concrete slab;
- Collection of one sub-slab soil sample; and

- Laboratory analysis of soil samples for vehicle maintenance related COPC including TRH, BTEX, VOCs, PAHs and heavy metals.

Results of the assessment identified the following contamination issues:

- Friable and bonded asbestos in shallow soil in close proximity to the dwelling at 60 Edmondson Avenue; and
- Asbestos in the form of bonded fragments in shallow soil in market gardening areas to the north of the dwelling at 60 Edmondson Avenue.

Part 155 Fifth Avenue and 50 Edmondson Avenue

To assess contamination associated with broad-scale market gardening, a systematic soil investigation was completed and comprised:

- Systematic sampling across a 23 m grid-based sampling plan and collection of shallow soil samples (0 – 0.15 mbg) from 24 locations (Figure 2c); and
- Soil samples were composited in the laboratory from two primary systematic soil samples and analysed for COPC including heavy metals and OCPs.

To assess contamination associated with filling of the former dam, a targeted sampling investigation was completed and comprised:

- Excavation of five trenches in the former dam and collection of five fill samples; and
- Laboratory analysis of soil samples for fill related COPC including TRH, BTEXN, PAHs, heavy metals, OCPs and asbestos.

To assess contamination associated with fill of unknown origin, the following was undertaken:

- Collection of 11 samples at locations where systematic grid based samples fell within filled areas; and
- Laboratory analysis of soil samples for fill related COPC including TRH, BTEXN, PAHs, heavy metals, OCPs and asbestos.

Results of the assessment identified the following contamination issues:

- Petroleum and asbestos impact to soils associated with the filling of the dam in the northern portion of the site; and
- Asbestos was detected as a fragment of bonded ACM in the driveway roadbase of the dwelling at 155 Fifth Avenue.

4.3 Geo-Logix Delineation Sampling

Geo-Logix was commissioned to undertake delineation sampling (Geo-Logix, 2016g, 2016h, 2016i) at the properties to further determine the extent of several contamination issues identified in the Phase 2 ESA's. The objective of the works was to define the extent of soil contamination issues so that remedial options could be considered. Geo-Logix undertook the following investigations in February 2017. Summarised analytical results are provided in Attachment C to Attachment E.

230 Sixth Avenue

To define the extent of petroleum impact to soils in the vicinity of the truck shed in the western portion of the site, the following works were undertaken:

- Collection and analysis of a soil sample 0.3 m deep from sample location S13 to assess the vertical extent of petroleum contamination;
- Collection of surface soil and deeper soil (0.3 m) from five additional locations to the north, south and east of large truck shed to delineate the lateral extent of petroleum impact; and
- Analysis of the surface samples for TRH and BTEX. Deeper samples were placed on hold.

To define the extent of friable and bonded asbestos impact to soils associated with the shed in the south western portion of the site (in the vicinity of SS1 and S5) the following scope of works was undertaken:

- Mapping the extent of observable fragments of bonded asbestos on site's surfaces in the vicinity of SS1 and S5; and
- Collection of surface soil samples from eight locations to the north, south and east of SS1, S5 and the shed to delineate the lateral extent of friable asbestos impact; and
- Laboratory analysis of soil samples for asbestos identification.

To define the extent of bonded asbestos impact to soils in the vicinity of S4 and S19, the following scope of works was undertaken:

- Systematic test pitting at 29 locations using an excavator;
- Collection of 10 L sample of fill soils. One sample was collected per 1 m of fill encountered; and
- Inspection of fill soils for asbestos as per the WA DOH (2009) gravimetric method to determine the %w/w of asbestos in soil.

Results of delineation sampling identified the following:

- Petroleum hydrocarbons at concentrations above human health and ecological criteria was limited in extent and did not warrant remediation.
- Fragments of bonded ACM were identified at sample location D2 in shallow fill (0.0-0.15 mbg) associated with building waste comprising of tiles and other ceramics. ACM appeared to be isolated and restricted to shallow fill along a narrow strip between the asphalt surface of the truck shed to the south and ACM fence to the north, an approximate area of 60 – 75 m².
- Fragments of bonded ACM were identified in fill at concentrations above residential landuse criteria in seven out of 20 testpits completed in the vicinity of sample S16. Fragments of bonded asbestos do not appear associated with demolition of any former site structures but with fill used to create a level lawn area. Approximately 700 m³ of fill is considered to require remediation or management;
- Fragments of bonded asbestos were observed in shallow fill soils (0.0 - 0.2 mbg) adjacent to the granny flat in the central portion of the site. Impact was largely contained within the garden bed with the estimated volume of contaminated fill approximately 14 m³.
- Friable asbestos impacted soil was found to be limited to within the shed footprint in the southwest portion of the site at SS1. However, fragments of bonded ACM were observed in shallow surface soils (0.0-0.1 m) across an approximate area of 290 m² surrounding the shed.

- Fragments of bonded asbestos including asbestos pipe was identified at sample locations TP16 and TP19. Asbestos at TP19 appeared associated with building waste including brick, concrete and glass to a maximum depth of 0.4 mbg. The volume of bonded asbestos impacted fill is approximately 165 m³.

60 – 80 Edmondson Avenue

To define the extent of asbestos impact to soils in the vicinity of SS2 in the vicinity of the dwelling, the following scope of works was undertaken:

- Collection and analysis of a soil sample 0.3 m deep from location SS2 to assess the vertical extent of asbestos fibre contamination;
- Collection of surface soil and deeper soil (0.3 m) from four additional locations to the north, south, east and west of SS2 to delineate the lateral extent of asbestos impact; and
- Analysis of surface samples for determination of asbestos concentration. Deeper samples were placed on hold.

To define the extent of asbestos impact to soil in the vicinity of S21 to the north of the dwelling, the following scope of works was undertaken:

- Collection and analysis of a soil sample 0.3 m deep from location S21 to assess the vertical extent of asbestos contamination;
- Collection of surface soil and deeper soil (0.3 m) from four additional locations to the north, south, east and west of S21 to delineate the lateral extent of asbestos impact; and
- Analysis of the surface samples for asbestos identification, deeper samples were placed on hold.

Results of delineation sampling identified the following:

- Bonded and friable forms of asbestos were identified in shallow surface soils and fill to the north of the dwelling at 60 Edmondson Avenue in the vicinity of sample location SS2. Friable and bonded asbestos in the southern portion of the impacted area was confined to shallow surface soil (0.0-0.1 m) with asbestos in the northern portion associated with building waste including brick, glass and ceramics to an approximate depth of 0.25 mbg. The approximate volume of impacted material was estimated at 7 - 9 m³.

Part 155 Fifth Avenue and 50 Edmondson Avenue

To define asbestos contamination within driveway fill, the following works were undertaken:

- Collection of five fill samples from beneath the asphalt surface of the driveway; and
- Inspection of fill soils for asbestos as per the WA DOH gravimetric method to determine the %w/w of asbestos in soil; and
- Collection of fill samples for laboratory determination of asbestos concentration.

Results of delineation sampling did not identify asbestos in driveway fill in excess of residential assessment criteria. Remediation of the area was not considered warranted however, as the material contains occasional fragments of bonded ACM, it was recommended that placement of the material within the top 0.1 m of a residential allotment should be avoided.

5. SITE CONTAMINATION SUMMARY

Environmental investigations have identified the following contamination issues that require remediation and / or management for the site to be considered suitable for the proposed residential subdivision. Areas of Environmental Concern (AEC) are presented on Figure 3.

Site Address	Issue of Concern	Area of Environmental Concern
230 Sixth Avenue	Fragments of bonded asbestos were identified in shallow fill at the rear of the rear of the truck shed. Soils also contain elevated levels of petroleum hydrocarbons.	AEC1
	Fragments of bonded asbestos were observed scattered on the asphalt ground surface to the north of the truck shed in the western portion of the site. Bonded asbestos was also identified in shallow surface soils (0.0-0.15) immediately north of the asphalt surface associated with building waste. The estimated extent of asbestos impact is 250 m ² .	AEC2
	Fragments of bonded asbestos were observed in shallow surface soils (0.0-0.2 mbg) adjacent to the granny flat in the central portion of the site. Impact was largely contained within the garden bed with the estimated volume of contaminated fill approximately 14 m ³ .	AEC3
	Fragments of bonded ACM were identified in fill within the central portion of the site at concentrations above residential landuse criteria. Given the consistency of fill encountered within this area, approximately 700 m ³ of fill is considered potentially impacted with sporadic bonded ACM at concentrations in excess of residential criteria.	AEC4
	Friable asbestos impacted soil was found to be limited to within the shed footprint in the southwest portion of the site with the volume of friable impacted material to be 15 – 20 m ³ . However, fragments of bonded ACM were observed in shallow surface soils (0.0-0.1 m) across an approximate area of 290 m ² surrounding the shed.	AEC5
	Fragments of bonded asbestos have been identified in fill soils (0.0-0.4 mbg) in the southeast corner of the site. Fragments of asbestos pipe was identified comingled with other anthropogenic material in excess of residential criteria. The estimated volume of asbestos contaminated fill is approximately 165 m ³ .	AEC6
60 – 80 Edmondson Avenue	Bonded and friable forms of asbestos have been identified in shallow surface soils and fill to the north of the dwelling at 60 Edmondson Avenue. Friable and bonded asbestos in the southern portion of the impacted area is confined to shallow surface soil (0.0-0.1 m) with asbestos in the northern portion associated with building waste including brick, glass and ceramics to an approximate depth of 0.25 mbg. The approximate volume of impacted material is approximately 7 - 9 m ³ .	AEC7
	Four fire pits were located across the central and northern portion of the property. Removal of the fire pits was recommended for aesthetic purposes. The combine approximate volume of material to be removed is 2 m ³ .	AEC8
Part 155 Fifth Avenue and 50 Edmondson Avenue	Bonded forms of asbestos was identified in roadbase beneath the asphalt driveway but within the top 0.1 m on 155 Fifth Avenue. The estimated volume of fill is approximately 18 m ³ .	AEC9

Site Address	Issue of Concern	Area of Environmental Concern
	Petroleum and asbestos impacted fill comprising of building waste, tyres, timber and plastics has been used to partially fill a dam in the northeast corner of 155 Fifth Avenue. The estimated volume of contaminated fill is approximately 60 m ³ .	AEC10

6. REMEDIATION OPTION CONSIDERATION

NSW Department of Environment and Climate Change (DECCW) (2006) *Guidelines for NSW Site Auditor Scheme* outlines the preferred hierarchy of remediation options. The preferred order for site remediation and management are:

1. On-site treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level;
2. Off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site;
3. Removal of contaminated soil to an approved site or facility, followed by the replacement of clean fill, where necessary; or
4. Consolidation and isolation of the soil on site by containing with a properly designed barrier.

The preferred remedial option for the AEC is a combination of excavation and off-site disposal and on-site remediation. A summary of preferred options is presented in the table below:

Remediation Option	AEC
Excavation and offsite disposal	AEC1, AEC3, AEC5, AEC7, AEC8, AEC10
On-site remediation	AEC2, AEC4, AEC5, AEC6,

7. DATA QUALITY OBJECTIVES

A Data Quality Objectives (DQO) process is used to define the type, quantity and quality of data needed to support decisions relating to the remediation of the site. Geo-Logix has adopted the seven step DQO process as described in National Environment Protection Measures (NEPM, 1999 Amended), AS 4482.1-2005, US EPA (2000) and DEC (2006).

Step 1: State the problem.

Several Areas of Environmental Concern have been identified. Remediation of the AEC's is required for the site to be considered suitable for residential land use.

Step 2: Identify the remediation decision.

Remediation of AEC has been performed and validated against Remediation Acceptance Criteria (RAC). The site can be considered remediated and suitable for residential land use.

Step 3: Identify information inputs.

- Identification of COPC;

- Definition of RAC;
- Appropriate validation sampling strategy; and
- Assessment of validation data against RAC.

Step 4: Define the remediation boundaries of the site.

- The boundaries of AEC1 to AEC10 as shown on Figure 3

Step 5: Develop a decision rule.

Results of soil validation sampling of remedial works do not exceed the RAC and as such remediation has been completed and the site can be considered suitable for residential land use.

Step 6: Specify acceptable limits on decision errors.

Field sampling methodology, sample preservation techniques, and laboratory analytical procedures must be appropriate to provide confidence in data quality so that any comparison against RAC can be considered reliable. This is achieved by defining and comparing results against the Data Quality Indicators (DQIs).

Step 7: Optimise the design for obtaining data.

Optimised design is achieved by referencing regulatory guidelines for sample design in consideration of the likely nature of contaminant distribution, or, undertaking additional intrusive investigation and sample collection based on field observations at the time of remedial works.

8. REMEDIATION ASSESSMENT CRITERIA

National Environmental Protection Measure (NEPM) Asbestos Health Screening Level

NEPM provides health screening levels for asbestos. RAC for asbestos at the site will include:

- No visible asbestos on the sites surface;
- Concentrations of bonded ACM in remediated areas are below the residential health screening level of 0.01% w/w; and
- Concentrations of friable asbestos are below the residential health screening level of 0.001% w/w.

National Environmental Protection Measure (NEPM) Health-based Investigation Level A/B (HILs A/B)

HILs are Tier 1 risk based generic assessment criteria used for the assessment of potential risks to human health from chronic exposure to contaminants in soil. They are intentionally conservative and based on a reasonable worst-case scenario for generic land use settings including Residential (HILs A/B), Open Space / Recreational (HILs C) and Commercial Industrial (HILs D).

- HILs A/B soil assessment criteria were adopted for validation soil samples on the basis the landuse is residential.

National Environmental Protection Measure (NEPM) Health Screening Levels A (HSLs A)

HSLs are Tier 1 risk based generic soil assessment criteria used for the assessment of potential risks to human health from chronic inhalation exposure of petroleum vapours emanating off petroleum contaminated soils (Vapour Risk). They are intentionally conservative and based on a reasonable worst-case scenario for generic soil types, contamination depth and land use settings including Residential (HSLs A/B), Open Space / Recreational (HSLs C) and Commercial Industrial (HSLs D). HSLs A soil assessment criteria will be adopted.

National Environmental Protection Measure (NEPM) TRH Management Limits

Soil management limits have been derived to avoid and minimise the following potential effects that may result from petroleum in soils:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosive hazards; and
- Effects on buried infrastructure.

National Environmental Protection Measure (NEPM) Ecological Screening Levels (ESLs)

Ecological Screening Levels (ESLs) have been developed and are based on a review of Canadian guidance for petroleum hydrocarbons contamination in coarse and fine grained soil types and application of the Australian methodology. A summary of ESLs adopted for site and rationale are detailed below.

Contaminant	ESL (mg/kg)	Rationale
F1 C6-C10	180	Value for urban residential/public open space in coarse grained soil.
F2 C10-C16	120	
F3 C16-C34	300*	
F4 C34-C40	2800*	
Benzene	50	
Toluene	85	
Ethylbenzene	70	
Xylenes (Total)	105	
Benzo(a)pyrene	0.7	

*low reliability values derived on the basis of fresh contamination (NEPC, 2013)

9. REGULATORY APPROVALS AND LICENSING

9.1 State Environment Planning Policy No.55 – Remediation of Land

The proposed remediation works are considered Category 2 Remediation Works (not requiring consent) under clause 14(a) of SEPP 55 for the following reasons:

- The work is not designated development under Schedule 3 of the *Environmental Planning and Assessment Act 1979* (NSW) as the treatment of contaminated soil originating exclusively from the site on which the development is located will not exceed 30,000 m³ of soil and disturb an aggregate area greater than 3 Ha;

- The land is not identified as critical habitat under the *Threatened Species Conservation Act 1995* (NSW);
- Remediation is not being conducted in an area that requires consideration under Section 5A of the *Environmental Planning and Assessment Act 1979* (NSW); and
- Remediation is not being performed in an area of environmental significance or which requires consent under another SEPP or a regional environmental plan.

Under SEPP 55 notification to council is required of the intent to undertake Category 2 Remediation Works. Council has 30 days to consider the notification.

Notice is also required to be given to Council 30 days after completion of remedial works.

9.2 Waste Classification

All wastes generated shall be classified in accordance with NSW EPA (2014) *Waste Classification Guidelines* – Part 1 Classifying Waste.

9.3 Protection of Environment Operations Act 1997

Remedial works do not fall within the licensing requirements for Contaminated Soil Treatment Works. All material to be excavated and removed from the site will be undertaken in strict accordance with the requirements of the *Protection of the Environment Operations Act 1997* (NSW). Such requirements include:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Ensuring appropriate transport of wastes; and
- Ensuring wastes materials are disposed to appropriately licensed landfill facilities.

9.4 Protection of the Environment Operations (Waste) Regulation 2014

Remediation of contaminated material is not a scheduled activity under the *Protection of the Environment Operations (Waste) Regulation 2014* (NSW) and therefore does not require a licence under the regulation for the following reasons:

- Less than 2,500 m³ of contaminated soil will be treated (not incinerated); and
- Area of remedial disturbance will be less than 3 ha.

9.5 OHS Legislation, Regulations and Standards

The remediation works will be conducted in compliance with applicable OHS legislation, regulations and standards. These may include:

- *Work Health and Safety Act 2011* (Commonwealth of Australia);
- *Work Health and Safety Regulation 2011* (NSW); and
- *The Dangerous Goods Act 1975* (NSW) and *Dangerous Goods (General) Regulation 1999* (NSW); and

- *Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC, 1995).*

9.6 Asbestos Removal Regulations and Code of Practice

The movement and disposal of asbestos contaminated soils will be managed in accordance with the following:

- *Work Health and Safety Act 2011* (Commonwealth of Australia);
- *Work Health and Safety Regulation 2011* (NSW);
- *Managing asbestos in or on soil* (WorkCover NSW, 2014);
- *How to Safely Remove Asbestos Code of Practice* (Safe Work Australia, 2011a);
- *Code of Practice for the Safe Removal of Asbestos 2nd Edition*, (NOHSC: 2002 (2005));
- *How to Manage and Control Asbestos in the Workplace Code of Practice* (Safe Work Australia, 2011b);
- *Code of Practice for the Management and Control of Asbestos in Workplaces* (NOHSC): 2018 (2005)); and
- *Working with Asbestos Guide* (WorkCover, 2008).

A site specific asbestos removal permit is to be obtained from NSW WorkCover at least seven days before the work is to commence.

As remedial works involve friable asbestos removal, a Class A licenced asbestos removal contractor is required to supervise friable asbestos removal works. The licensed asbestos removal contractor is to prepare an Asbestos Removal Control Plan prior to the commencement of works.

10. PRELIMINARIES

10.1 Work to be completed prior to site establishment

Prior to undertaking works the following documents will be required:

- Site Specific Health and Safety Plan (SSHSP) and Induction Record; and
- Site Management Plan (SMP).

10.2 Site Facilities

Site facilities to be established on site prior to the commencement of remedial works will include:

- Installation of security fencing around the site perimeter (complete);
- Site office / first aid with emergency wash facilities;
- Portable toilets;
- Asbestos decontamination unit for friable work;
- Defined entry and exit points; and

- Vehicle wash down bay (if required).

10.3 Site Access

All personnel entering the site will be required to sign in / out at the site office. Personnel entering and working on the site will require the following:

- Complete Site Induction;
- Appropriate Personnel Protective Equipment (PPE) as detailed in the SSHSP; and
- Completed the WorkCover Occupational Health and Safety General Induction for Construction Work in NSW.

10.4 OHS Signage

Signage will be installed at site entrances detailing the location of first aid facilities and after hour contacts. Warning signs will be placed around the perimeter of the site to prevent unauthorised access.

10.5 Remediation Project Hours

Civil remediation work will be restricted to the following:

- Between 7 am to 6 pm Monday to Saturday; and
- No work to be carried out on Sundays or public holidays.

11. AEC 1 REMEDIATION AND VALIDATION

Approximately 3 - 5 m³ of petroleum impacted soil exists to the rear of the truck shed in the western portion of 230 Sixth Avenue (sample location S13). Fragments of asbestos were also identified in surface soils in the remedial area. Remediation of asbestos is required in order for the site to be considered suitable for the proposed residential sub division.

The material is classified Special Waste (Asbestos) in the General Solid Waste category. Off-site disposal at a facility licensed by NSW EPA to accept such waste is proposed.

11.1 Remediation Methodology

Asbestos in Fill

The remedial method for bonded ACM fragments on the ground surface at S13 comprises the following:

- Inspection of the ground surface for ACM fragments by completing a walkover across the area on approximately 1 m wide spaced grid lines and handpicking ACM fragments. The estimated remediation extent is shown on Figure 4a;
- Raking of the top 0.2 m of surface soils across the area with the teeth of the excavator and then by hand;
- Completion an additional walkover along the length of the area on approximately 1 m wide spaced grid lines hand-picking any remaining ACM fragments; and

- Off-site disposal of ACM fragments to landfill that can accept Special Waste (asbestos).

Asbestos air monitoring is to be undertaken during all bonded asbestos removal works.

Petroleum Impacted Fill

The remedial method for petroleum impacted fill at AEC 1 comprises the following:

- Excavation and stockpiling petroleum material. The extent of excavation is presented on Figure 4a; and
- Off-site disposal to a facility licenced to accept Special Waste (Asbestos) within the General Solid Waste (non-putrescible) category.

11.2 Validation Methodology

Following removal of impacted surface soils, validation of underlying soils will include:

- Collection of soil samples from the base of the excavation on a 5 m grid;
- Collection of soil samples from the walls of the excavation at a rate of 1 sample per 5 m lineal meters;
- Collection, preservation and transportation of samples in accordance with Geo-Logix's Soil Sampling Methodology (Attachment F);
- Analysis of soils for petroleum hydrocarbons (TRH and BTEX) by a NATA accredited laboratory;
- Visual inspection of surface soils including the base and walls of the excavation at sample S13 will be visually inspected for bonded asbestos fragments; and
- Comparison of analytical results against the RAC.

12. AEC 2 REMEDIATION AND VALIDATION

Fragments of bonded ACM have been observed on the asphalt ground surface to the north of the truck shed in the western portion of 230 Sixth Avenue. Fragments were also identified in shallow fill (0.0 - 0.15) at sample location D2 between the edge of the asphalt surface and the ACM fence. The area where bonded ACM fragments have been identified is estimated at 250 m².

12.1 Remediation Methodology

Remediation of bonded ACM fragments on the ground surface will include the following:

- Inspection of the ground surface for ACM fragments by completing a walkover across the area on approximately 1 m wide spaced grid lines and handpicking and bagging of ACM fragments. Remedial extents are shown in Figure 4a;
- Raking the top 0.15 m of surface soils between the asphalt surface and ACM fence with the teeth of the excavator and then by hand;
- Completion of an additional walkover along across the area on approximately 1 m wide spaced grid lines hand-picking and bagging any remaining ACM fragments; and

- Off-site disposal of ACM fragments to a landfill that can accept Special Waste (asbestos).

Asbestos air monitoring is to be undertaken during all bonded asbestos removal works.

12.2 Validation Methodology

Following remediation of bonded ACM fragments remediated areas will be validated according to the following methodology:

- Completion of three visual passes on 1 m spaced grid lines to visually validate surface soils as free of visible fragments of bonded ACM.

13. AEC 3 REMEDIATION AND VALIDATION

Numerous fragments of bonded asbestos were observed in shallow fill soils (0.0-0.2 mbg) adjacent to the granny flat in the central portion of 230 Sixth Avenue. Impact was found to be largely contained within the garden bed with approximately 14 m³ of soils requiring excavation and removal. Remedial extents are showing in Figure 4a.

13.1 Remediation Methodology

Remediation of ACM impacted fill at AEC 3 includes excavation and off-site disposal. Remediation will comprise:

- Removal of the large tree within the garden bed;
- Excavation and stockpiling of the impacted fill;
- Removal of concrete footpaths to confirm asbestos impact does not extend below the footpaths; and
- Off-site disposal of impacted fill to landfill licensed to accept Special Waste (Asbestos) in the General Solid Waste (non-putrescible) category.

13.2 Validation Methodology

Following excavation of asbestos impacted soils from AEC3, the remediation area will be validated according to the following methodology:

- Completion of three visual passes on 1 m spaced grid lines to visually validate surface soils as free of visible fragments of bonded ACM.

14. AEC 4 AND AEC 6 REMEDIATION AND VALIDATION

An estimated 700 - 900 m³ of bonded ACM impacted fill requires remediation from AEC 4 and AEC 6. The approximate extent of impacted fill based on the results of Geo-Logix investigations is presented in Figure 4a and 4b. Remediation will comprise the following:

- Division of the impacted area into 10 m x 10 m cells;
- Excavation of fill to the depth of underlying native soils in each cell;

- Sifting of excavated fill using an excavator shaker bucket in 10 m³ portions;
- Handpicking of ACM fragments as the material is sifted by completing inspection of the resulting stockpile and raking by hand; and
- Stockpiling remediated material upon satisfactory removal of ACM fragments.

14.1 Remediated Excavated Soil Validation

Following handpicking of ACM from excavated fill soils, the remediated soils will be validated with the following methodology:

- Remediated material is to be temporarily stockpiled in volumes of approximately 30m³ each;
- Three 10L soil samples are to be collected from each stockpile immediately after stockpiling in accordance with NEPC (2013) *National Environmental Protection (Assessment of Site Contamination) Measure* Table 4 Minimum Number of Samples Recommended for Initial Assessment of Stockpiles;
- Visual assessment and measurement of the %w/w ACM of each 10L soil sample in accordance with the WA DOH (2009) Gravimetric Method;
- Analytical results are to be compared against the RAC immediately after assessment;
- If %w/w ACM in the stockpile samples exceed RAC, the stockpile is to be spread out again, re-inspected and ACM hand-picked. This process is to be repeated until %w/w ACM is below RAC;
- Once each stockpile is validated as free of visible ACM the material will be used to reinstate the source excavations.

14.2 Validation Methodology

Following removal of asbestos impacted fill soils, resulting excavations will be validated in accordance with the following methodology:

- Inspection of the base of the resulting excavations to visually validate surface soils are free of visible fragments of bonded ACM;
- Collection of validation samples at evenly spaced locations along each 5 m lateral length of excavation walls (Figure 5a and 5b). At each location 10 L soil samples will be collected from each vertical metre of fill encountered for visual assessment and measurement of the %w/w of asbestos in soil in accordance with the WA DOH (2009) gravimetric sample method; and
- Comparison of results against the RAC.

15. AEC 5 REMEDIATION AND VALIDATION

Friable asbestos impacted soil was found to be limited to within the shed footprint in the southwest portion 230 Sixth Avenue with the volume of friable impacted material to be 15 - 20 m³. Fragments of bonded ACM were observed in shallow surface soils (0.0 - 0.1 m) across an approximate area of 290 m² surrounding the shed.

15.1 Remediation Methodology

Friable Asbestos

Remediation of friable asbestos impacted soils within the shed at AEC 5 will include the following:

- Demolition of the existing shed and removal of the corrugated ACM fence; and
- Excavation and offsite disposal of the top 0.1 – 0.15 m of the ground surface within the shed footprint.. Remedial extents are shown in Figure 4a.

The works are to be completed under the supervision of a Class A licensed asbestos removal contractor. Asbestos air monitoring is required by a licensed asbestos assessor during all removal activities.

Excavated material will require chemical analysis to determine the waste classification in accordance with NSW EPA (2014) Waste Classification Guidelines prior to off-site disposal.

Bonded Asbestos

Remediation of bonded ACM in surface soils surrounding the shed will include the following:

- Mowing the remediation area to remove vegetation;
- Inspection of the ground surface for ACM fragments by completing a walkover across the length of the area on approximately 1 m wide spaced grid lines and hand-picking ACM fragments;
- Raking the top 0.1 m of surface soils across the area with the teeth of the excavator and then by hand;
- Completion an additional walkover along the length of the area on approximately 1 m wide spaced grid lines hand-picking any remaining ACM fragments; and
- Asbestos air monitoring is to be undertaken during all bonded asbestos removal works.

Removed fragments are to be disposed of off-site as Special Waste (Asbestos).

15.2 Validation Methodology

Friable Asbestos

Following removal of friable asbestos impacted material, the resulting excavation will be validated in accordance with the following methodology:

- Collection of three samples from the base of the excavation on a 5 m grid (Figure 5a); and
- Collection of one sample at evenly spaced locations along each 5 m lateral length of the excavation walls;

- Laboratory analysis of samples for asbestos concentrations.; and
- Asbestos clearance inspection by a licensed asbestos assessor.

Bonded Asbestos

Following remediation of bonded asbestos from surface soils, the remedial area will be validated in accordance with the following methodology:

- Completion of three visual passes on 1 m spaced grid lines to visually validate surface soils as free of visible fragments of bonded ACM.

16. AEC 7 REMEDIATION AND VALIDATION

Bonded and friable forms of asbestos were identified in shallow surface soils and fill to the north of the dwelling at 60 Edmondson Avenue in the vicinity of sample location SS2. Friable and bonded asbestos in the southern portion of the impacted area was confined to shallow surface soil (0.0-0.1 m). Asbestos in the northern portion associated with building waste including brick, glass and ceramics to an approximate depth of 0.25 mbg. The approximate volume of impacted material is estimated at 7 - 9 m³.

16.1 Remediation Methodology

Remediation of ACM impacted fill at AEC 7 will comprise the following:

- Mowing of grass and removal of trees / small shrubs from the remedial area (Figure 4c);
- Excavation and offsite disposal of the top 0.1-0.15 m from the southern extent; and
- Excavation and offsite disposal of the top 0.25 m from the northern extent.

The works are to be completed under the supervision of a Class A licensed asbestos removal contractor. Asbestos air monitoring is required by a licensed asbestos assessor during all removal activities.

Excavated material will require chemical analysis to determine the waste classification in accordance with NSW EPA (2014) Waste Classification Guidelines prior to off-site disposal.

16.2 Validation Methodology

Following removal of asbestos impacted material, the resulting excavation will be validated in accordance with the following methodology:

- Collection of three samples from the base of the excavation on a 5 m grid (Figure 5c);
- Collection of one sample at evenly spaced locations along each 5 m lateral length of the excavation walls;
- Completion of three visual passes on 1 m spaced grid lines to visually validate surface soils as free of visible fragments of bonded ACM;
- Laboratory analysis of validation samples for asbestos concentration; and
- Asbestos clearance inspection by a licensed asbestos assessor.

17. AEC 8 REMEDIATION AND VALIDATION

Four fire pits were located across the central and northern portion of 60 – 80 Edmondson Avenue. While COPC were not detected at concentrations above residential land use criteria in each of the fire pits, removal was recommended for aesthetic purposes. The combined approximate volume of material to be removed is 2 m³.

17.1 Remediation Methodology

Remediation of ACM impacted fill at AEC 8 will comprise the following:

- Collection of one soil sample within each fire pit for leachate analysis of chromium and lead. Leachate analysis will allow appropriate waste classification of the material;
- Excavation of impacted fill. Remedial extents are shown on Figure 4d; and
- Off-site disposal of fill to a landfill licensed to accept such waste.

17.2 Validation Methodology

Validation of the fire pits will comprise a visual inspection to ensure all material has been removed.

18. AEC 9 REMEDIATION AND VALIDATION

Asbestos was not identified at concentrations in excess of residential land use criteria within driveway fill (Figure 4e). The material is suitable for re-use on site. As the material contains occasional fragments of bonded ACM, placement of the material within the top 0.1 m of a residential allotment should be avoided. Geo-Logix recommends the driveway roadbase material is used as fill beneath a road within the subdivision.

After relocation of fill material, the former driveway area is to be inspected to validate surface soils as free of visible fragments of bonded ACM.

19. AEC 10 REMEDIATION AND VALIDATION

Petroleum and asbestos impacted fill comprising building waste, tyres, timber and plastics has been used to partially fill a dam in the northeast corner of 155 Fifth Avenue. The estimated volume of contaminated fill is approximately 60 m³.

The material is classified Special Waste (Asbestos) in the Restricted Solid Waste category. Off-site disposal at a facility licensed by NSW EPA to accept such waste is proposed.

19.1 Remediation Methodology

Remediation of ACM impacted fill at AEC 10 includes excavation and off-site disposal. Remediation will comprise:

- Excavation of impacted fill. Remedial extents are shown on Figure 4e; and

- Off-site disposal of fill to landfill licensed to accept Special Waste (Asbestos) in the Restricted Solid Waste category.

Asbestos air monitoring is to be undertaken during all bonded asbestos removal works.

19.2 Validation Methodology

Following removal of impacted fill, validation of underlying soils will include:

- Collection of soil samples from the base of the resulting excavation on a 5 m grid (Figure 5d).
- Collection of soil samples from excavation walls at a rate of one per five lineal metres;
- Collection, preservation and transportation of samples in accordance with Geo-Logix's Soil Sampling Methodology (Attachment F);
- Analysis of soil validation samples for petroleum hydrocarbons and heavy metals;
- Inspection comprising three passes on 1 m spaced grid lines to visually validate surface soils as free of visible fragments of bonded ACM; and
- Comparison of analytical results against the RAC.

20. IMPORTED FILL VALIDATION METHODOLOGY

If there is a requirement to reinstate remedial excavations with imported fill, fill must meet the definition of one or both of the following:

- Virgin Excavated Natural Material (VENM); or
- Excavated Natural Material (ENM).

Consignors of ENM have certain obligations under the ENM Exemption. The Environmental Consultant is to ensure imported fill meets VENM / ENM definition and acquire appropriate documentation for the client, the consignor of waste.

21. WASTE CLASSIFICATION, TRANSPORTATION AND DISPOSAL

21.1 Waste Classification

Where applicable, soils requiring off-site disposal are to be classified in accordance with the following methodology:

- Soil samples are to be collected at a rate of 1 per 25 m³ from the undisturbed bulk of the stockpiled soil (>300 mm from soil surface);
- Soil samples are to be analysed for COPC including TRH, BTEX, PAHs, OCPs, heavy metals and asbestos; and
- Analytical results are to be compared against NSW EPA (2014) *Waste Classification Guidelines*.

21.2 Transport of Wastes

The following measures are to be implemented for hand-picked collection of all ACM:

- ACM will be placed in a 200 micron polyethylene bag labeled 'Caution Asbestos Do Not Inhale Dust';
- The bag will be sealed by doubling the neck of the bag over and sealing with PVC tape; and
- All ACM collected will be disposed of offsite to a landfill licensed by the NSW EPA to accept such waste.

Part 7 of the *Protection of the Environment Operations (Waste) Regulation 2005* requires that persons transporting asbestos waste must ensure:

- Bonded asbestos material be securely packaged at all times;
- Friable asbestos material be kept in a sealed container during transportation;
- If waste consists of asbestos contaminated soils, it is to be wetted down; and
- All asbestos waste must be transported in a covered, leak-proof vehicle.

In addition, the waste transporter must provide the following information to the NSW EPA before the transportation of the load commences:

- The address of the site at which the asbestos waste has been generated;
- The name, address and contact details of the premises from which the load is to be transported;
- The date on which it is proposed that transportation commence;
- The name, address and contact details of the premises to which the waste is proposed to be transported; and
- The approximate weight of each class of asbestos waste in the load.

22. DATA QUALITY INDICATORS

QC/QA will be tested by review of data against Data Quality Indicators (DQIs) to ensure data precision, accuracy, representativeness, comparability and completeness. A summary of DQIs are presented in the table below:

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind Replicate Samples	1 Per 20 Samples	RPD <50%
Split Samples	1 Per 20 Samples	RPD <50%
Accuracy		
Surrogate Spikes	All Organic Analyses	General analytes recovery of 70%-130%
Laboratory Control Samples	1 Per Batch	General analytes recovery of 70%-130%

Data Quality Objectives	Frequency	Data Quality Indicator
Matrix Spikes	1 Per Batch	General analytes recovery of 70%-130%
Analysis Blank	1 Per Batch	Non Detect
Representativeness		
Samples Stored At 4°C	All Samples	-
Samples Analysed Within Specified Holding Times	All Samples	Organics 14 days / Inorganics 6 months
Trip Spike	1 Per Batch	Recovery of 70% - 130%
Trip Blank	1 Per Batch	Non detect
Samples Transported Under COC Conditions	All Samples	-
Comparability		
NATA Approved Laboratory Analytical Method	All Samples, All Analytes	-
Consistent Sampling Techniques	All Samples	-
Appropriate Laboratory Reporting Limits	All Samples, All Analytes	-
Completeness		
Geo-Logix Standard Field Templates Used	All Samples	-
Appropriate Sampling To Support The Objectives	-	Meets minimum sampling requirements

Notes:

(1) AS 4482.1-2005 (Australian Standard, 2005) indicate an acceptable Relative Percentage Difference (RPD) range of 30%-50%, and that the variation can be expected to be higher for organic analysis than inorganics, and for low concentrations of analytes. Given the soil samples will be collected for the purpose of validating the removal of contaminated soils, any detected concentrations are expected to be low and close to the laboratory detection limits. As such, a RPD acceptable limit of 50% was deemed appropriate for the investigation.

(2) Field and Laboratory Quality Control/Quality Assurance (QA/QC) procedures will be conducted in accordance with NEPC (2013) and AS 4482.1-2005.

22.1 Field QA/QC

Field sample QA/QC will be conducted in accordance with AS 4482.1-2005 (Australian Standard, 2005) and consist of the following:

- Sample Duplicates – 1 per 20 samples;
- Sample Triplicate (Secondary Lab) –1 per 20 samples;
- Sample equipment rinsate sample – 1 per day.

Soil sampling will be undertaken in accordance with SSHSP utilising disposal gloves between each sample location. Sampling equipment will be decontaminated by the following method:

- Washing in water and phosphate free detergent solution (Decon 90); and
- Double rinsing in tap water.

22.2 Field Data QA/QC Acceptance Criteria

The acceptance criteria for QA/QC samples are detailed in the following table:

Quality Control Sample	Minimum Number Of Samples	Data Quality Indicator
Duplicate sample	1 per 20	50% Relative Percent Difference (RPD) (1)
Triplicate Sample	1 per 20	50% RPD (1)
Rinsate Blank	1 per day	No detectable concentrations

In the event the acceptance criteria are not met, the variation will be taken into consideration and its implications assessed in regard to the context of the investigation.

22.3 Laboratory QA/QC

The following laboratories are proposed to be engaged to undertake sample analysis:

- Primary Laboratory - Eurofins MGT Laboratories Pty Ltd (Sydney) (NATA accreditation number 1261); and
- Secondary Laboratory - Eurofins MGT Laboratories Pty Ltd (Melbourne) (NATA accreditation number 1254 and 14271).

The primary and secondary laboratories must comply with the minimum QA procedures documented in Schedule B(3) in NEPC (1999) *National Environmental Protection (Assessment of Site Contamination) Measure* and include but not be limited to:

- At least one analysis blank per batch;
- Duplicate analysis at a rate of one per batch or one per ten samples, whichever is smaller;
- Laboratory Control Samples at a rate of one per batch;
- Matrix spikes; and
- Surrogate Spikes.

The acceptance criteria for laboratory QC is presented in the following table:

Quality Control Sample	Data Quality Indicator
Matrix Spike	General analytes recovery of 70% - 130% / Metals recovery of 70% - 130%
Laboratory Control Sample	General analytes recovery of 70% - 130% / Metals recovery of 70% - 130%
Surrogate Sample	Results compared to analyte specific criteria / Metals recovery of 70% - 130%
Method Blank	< Laboratory Reporting Limits
Sample Duplicate	Organics
	RPD of 0-50% (>10xPQL)
	RPD of 0-75% (5-10xPQL)
	RPD of 0-100% (<5xPQL)
	Metals
	RPD of 0-30% (>10xPQL)
	RPD of 0-75% (5-10xPQL)
	RPD of 0-100% (<5xPQL)

23. SITE MANAGEMENT PLAN

A SMP will be prepared to ensure appropriate procedures and methods are employed to minimise the potential for erosion, to avoid contamination leaving the site and to avoid disturbance of neighbouring areas.

The SMP is to be adhered to during the remediation works. The SMP will address the following:

- Water and soil management;
- Air quality management;
- Noise management; and
- Traffic management.

The remediation works will comply with relevant legislative requirements, licences, approvals and notices. Regular monitoring of environmental performance will be undertaken to identify if any areas require improvement.

23.1 Water and Soil Management

Where possible, excavation will be restricted to favourable weather conditions (e.g. dry, still or low wind weather), particularly during significant excavation periods. Additionally the following measures should be adhered to for water management on-site:

- Perched groundwater which may accumulate in the excavations can be pumped and used on soil stockpiles to maintain the optimum soil moisture for bioremediation;
- Surface water management measures will be implemented prior to the commencement of excavation to divert surface water run-off away from excavations or stockpiles;
- Drainage diversions will guide water to existing drainage gutters and pits, following existing drainage patterns as reasonably as possible. The drainage diversions will also be arranged so that surface water run-off from disturbed or contaminated areas does not enter remediated or undisturbed areas;
- Any surface water run-off that does inadvertently enter the excavations will be treated as perched groundwater;
- Surface water and sediment management measures will also be implemented around stockpiles. Any soil stockpiling areas will be lined with Low Density Polyethylene sheeting (LDPE) and bunded to prevent runoff and to prevent leaching of contaminants to the sub-surface. The LDPE sheets are to be rolled out perpendicular to the slope, with a minimum of 300mm overlap. The up-gradient layer is to overlap the down-gradient layer. Each side of the overlap is to be sealed with a PVC tape. Stockpiles are to be surrounded by silt fence and / or straw bales;
- Sediment removed from any trapping device (e.g. silt fence, straw bales and/or stormwater collecting ponds) shall be relocated where further pollution down slope lands and waterways cannot occur;
- Excavated material will be stockpiled and located away from traffic areas, from any potential disturbances and from existing drains. Stockpiles should be constructed in flat areas of the site; and

- Stockpiles will be covered in PVC plastic at the end of each day to prevent water infiltration, sediment runoff and escape of moisture or dust.

23.2 Air Quality Management

Dust emissions are to be minimised to a practical extent. The following measures may be used to ensure this:

- All loads entering and exiting the site are to be covered;
- Light water spray can be used to suppress dust;
- Stockpiles can be covered with LDPE; and
- Excavation surfaces can be lightly wetted down if emitting dust.

The following measures may be employed if odorous conditions are encountered:

- Odour monitoring will be performed through regular personal olfactory observations by site personnel. A PID may be used during earthworks to detect and identify hotspots where additional protection procedures may be necessary;
- Covering excavation faces and stockpiles with plastic;
- Installing a water misting system around the odour area; and
- Using an odour suppressant such as Biosolve.

Asbestos air monitoring will be undertaken during bonded and friable remediation works.

23.3 Noise Management

The potential for noise impacts from the remediation works will result from the preparation of the site, movement of vehicles and operation of plant on the site.

Noise is not considered to be a significant issue for proposed activities at the subject site due to its location and surrounding land uses.

Noise will be minimised by the following:

- Ensuring machinery is appropriately maintained; and
- Restricting work to designated work hours.

23.4 Traffic Management

All trucks and vehicles transporting soil, equipment, machinery or materials to and from the site will abide by the following:

- All vehicles will access the site via the site gate which will be designated prior to the commencement of works (Kelly Street);
- A rumble grid or pad of crushed aggregate will be installed at the vehicle access entry/exit point;
- Comply with road traffic rules;
- Secure and cover all loads;
- Truck tyres and equipment will be inspected and dry cleaned if necessary prior to leaving disturbed areas; and
- Will not track soils onto the roads.

24. OCCUPATIONAL HEALTH AND SAFETY

This section of the RAP describes the minimum standards to be adopted to protect the health and safety of all persons involved in the remedial works.

The remediation contractor will develop and implement a suitable Health and Safety Management System in compliance with legislative and regulatory requirements.

A SSHSP will be developed prior to commencement of the works. The SSHSP will detail the appropriate health and safety information necessary to conduct the remediation works in a safe manner. The SSHSP must be read and understood by all people entering the site during remediation works. It is the Principal Contractor's responsibility to induct all site workers and visitors on the requirements of the OHS Plan. The SSHSP should outline the following:

- Statement of Responsibilities;
- Hazard Identification;
- Safe Work Procedures;
- Preparation of a large map for site workers depicting the location of residual contaminated soil;
- Define a list of relevant personnel, their duties, and contact details;
- Outline the appropriate PPE;
- Define air monitoring requirements and odour control measures;
- Outline personnel hygiene controls to minimise accidental exposure to contaminated soils and groundwater;
- Provide contact details and map to nearest hospital; and
- Tailgate meeting records and induction records for contractors.

24.1 Responsibilities

The responsibilities and duties of the remediation contractor in relation to OHS will include:

- Ensuring all work undertaken is performed in accordance with relevant legislation and regulations, and directions issued by regulatory authorities;
- Developing and documenting safe working practices for all employees and subcontractors;
- Ensuring workers are adequately trained to undertake their work tasks using the adopted work practices;
- Ensuring that the work is performed in strict adherence to the adopted work practices;
- Appointing a suitably qualified and experienced Site Safety Officer (SSO) to supervise and control safety matters;
- Supplying and maintaining first aid facilities and ensuring first aid attendants are present in accordance with statutory requirements;
- Ensuring all workers are inducted prior to their commencement of work. This will include site specific conditions, work procedures, emergency and evacuation procedures, decontamination and other relevant matters detailed in the SSHSP;
- Ensuring copies of SSHSP are readily available;
- Establishment and maintenance of a record of all hazardous substances on the site including provision of Material Safety Data Sheets (MSDSs);
- Reporting all site incidents and accidents to the WorkCover Authority;
- Ensuring that the SSO is on-site during all site works to monitor compliance with the SSHSP;
- Ensuring that regular documented OHS inspections are conducted, including the use of a documented follow-up system to monitor improvements and measures introduced to rectify any observations made;
- Supplying and maintaining the required PPE; and
- Ensuring all workers are trained in the use of the PPE and correctly use PPE.

25. CONTINGENCY PLAN

The Contingency Plan (CP) concentrates on the response to incidents, including notification, activation, response and recovery phases, but also requires cause identification and review procedures.

Should an incident occur which causes, or has the potential to cause, environmental damage or harm to human health, the CP will govern responses in accordance with the specific incident procedures. Incidents addressed in the CP will include off-site discharges of impacted stormwater, flooding of drains, chemical spills, etc.

No contingency plan will substitute for sound environmental practice during the remedial works. Accordingly, it is the responsibility of the environmental consultant and remediation contractor to monitor the works at all times and manage all potentially significant activities in a proactive manner. Records of all actions relating to environmental protection measures, contingency events and impacts will be documented.

The following table summarises anticipated problems, the resulting impacts they may cause and the proposed response actions to be taken.

Anticipated Problem	Potential Impact	Corrective Action
Release of fuel/ oil from machinery	Impact of surface waters and/ or soils	Remove source, use adsorbent booms to remove oil, make any repairs.
Excessive dust	Nuisance complaints	Use water sprays; or stop dust- generating activity until better dust control can be achieved.
Excessive noise	Nuisance complaints	Identify source and review noise attenuation equipment.
Excessively wet materials	Generation of turbid waters	Stockpile and dewater on site or use absorbents
Flooding by extreme rainfall events	Impact of stormwater and / or contact with contaminated soils	Sediment filters will be installed on the stockpile area overflow, a record will be kept of the estimated water and the time period over which the discharge occurs. Cover stockpiles with plastic to reduce rainfall infiltration.
Asbestos is observed during excavation of portions of the site outside waste disposal area	Health and safety issues	Work in the area of concern is to cease until assessment of the potential extent of the problem is conducted. Material may have to be transported off-site to an appropriately licensed landfill facility.
Unacceptable levels of volatile gases	Occupational health and safety concern and odour	Cover exposed soil stockpiles and excavation pits, use mitigation agent. Work to cease until clearance is provided
Excessive odours	Nuisance complaints	Use colour suppressants (such as Biosolve®), cover exposed soil stockpiles and excavation pits.
Equipment failures	Program delay	Maintain spare equipment and parts; keep rental options available.

Should additional contamination become evident during remediation works, the contamination will be assessed in accordance with NEPM (1999, amended) assessment criteria and managed in accordance with the procedures outlined in this document.

26. COMMUNITY CONSULTATION

Based on immediate surrounding land use (large rural residential and commercial / industrial properties), non-sensitive environmental setting and limited nature of remedial works community consultation is not considered necessary.

27. REPORTING

A Remediation and Validation report is to be prepared in accordance with the following guidelines:

- *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013* (NEPC, 1999); and
- *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 1997).

The report will include the following information:

- Description of the works completed;
- The DQO's for the validation program and their achievement by referencing DQI's;
- Detailed figures outlining the extent of the remediation works;
- Location of all validation samples;
- Summary analytical tables;
- Laboratory analytical reports;
- Summary of the tracking, volumes and fate of disposed material;
- Landfill disposal dockets;
- Conclusions as to the suitability of the land for the proposed residential landuse; and
- Recommendation for additional remediation works or environmental monitoring (if required).

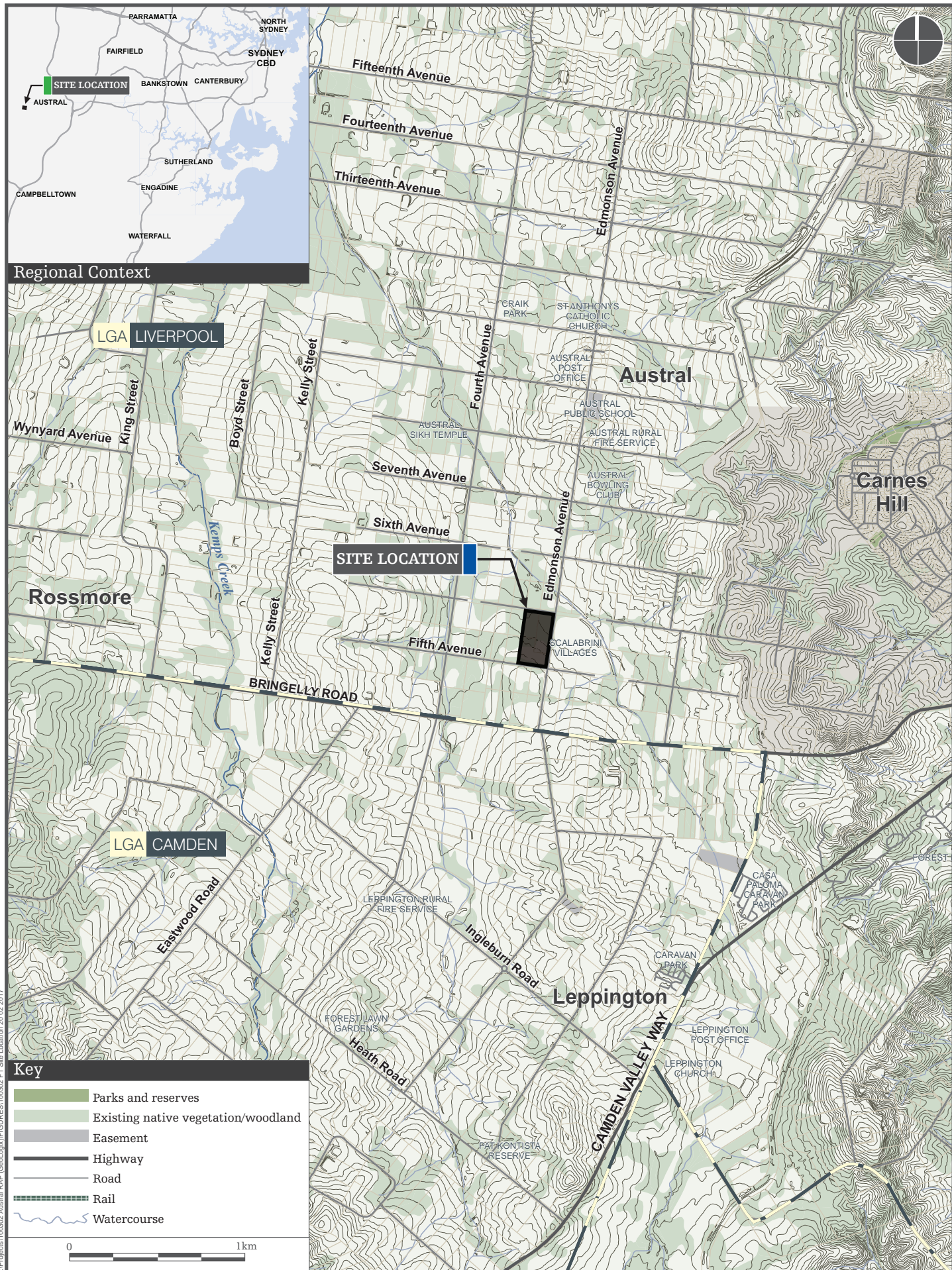
REFERENCES

- Geo-Logix (2016a) Phase 1 Environment Site Assessment Report, 230 Sixth Avenue, Austral NSW. Report Ref 1601067Rpt02FinalV01_12Jul16.
- Geo-Logix (2016b) Phase 1 Environment Site Assessment Report, 60 - 80 Edmondson Avenue, Austral NSW. Report Ref 1601067Rpt02FinalV01_22Sep16.
- Geo-Logix (2016c) Phase 1 Environment Site Assessment Report, Part 155 Fifth Avenue and 50 Edmondson Avenue, Austral NSW. Report Ref 1601067Rpt03FinalV01_22Sep16.
- Geo-Logix (2016d) Phase 2 Environment Site Assessment Report, 230 Sixth Avenue, Austral NSW. Report Ref 1601114_Rpt03FinalV01_9Dec16.
- Geo-Logix (2016e) Phase 2 Environment Site Assessment Report, 60-80 Edmondson Avenue, Austral NSW. Report Ref 1601114_Rpt01FinalV01_9Dec16.
- Geo-Logix (2016f) Phase 2 Environment Site Assessment Report, Part 155 Fifth Avenue and 50 Edmondson Avenue, Austral NSW. Report Ref 1601114_Rpt02FinalV01_9Dec16.
- Geo-Logix (2016g) Phase 2 Environment Site Assessment Addendum, 230 Sixth Avenue, Austral NSW. Report Ref 1701010_Ltr01FinalV01_28Feb17.
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- NEPC (1999) Amended National Environmental Protection Measure (2013), National Environmental Protection Council.
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- NSW EPA (1998) *State Environment Planning Policy 55 – Remediation of the Land*, Department of Urban Affairs and Planning, NSW Environmental Protection Authority, 1998.
- NSW EPA (1995) *Sampling Design Guidelines*, NSW Environmental Protection Authority, 1995.
- Protection of the Environment Operations Act 1997* (NSW)
- Protection of the Environment Operations (Waste) Regulation 2005* (NSW)
- State Environment Planning Policy No.55 – Remediation of Land 1998 (NSW)
- Threatened Species Conservation Act 1995* (NSW)
- WA DOH (2009) *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia*. Western Australian Department of Health, May 2009.
- WorkCover (2008) *Working with Asbestos Guide 2008*, WorkCover New South Wales, 2008
- Workplace Health and Safety Act 2011* (Commonwealth of Australia)
- Work Health and Safety Regulation 2011* (NSW)



US EPA (2000) *Data Quality Objectives Process for Hazardous Wastes Site Investigations EPAQA/G-4HW*, United States Environmental Protection Agency.

FIGURES



E:\Projects\100302 Austral RAP (Geo-Logix)\FIGURES\100302 F1 Site Location 20.02.2017



E:\Projects\10002 Austral RAP (Geo-Logix)\FIGURES\10002 F2A Site Map and Sampling Locations 24.02.2017

Key

Site boundary

Systematic sample location (Geo-Logix, 2016)

Judgemental sample location (Geo-Logix, 2016)

Delineation sample location (Geo-Logix, 2017)

0

20m



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SITE MAP AND SAMPLING LOCATIONS
230 SIXTH AVENUE

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

Project No. 1701013

Figure 2A



E:\Projects\10002 Austral RAP (Geo-Logix)\FIGURES\10002 F2B Sampling Locations 24.02.2017 TO

Key

Site boundary

Cadastral boundary

Systematic Sample location (Geo-Logix, 2016)

Judgmental Sample location (Geo-Logix, 2016)

Delineation Sample location (Geo-Logix, 2017)

Surface elevation

0

50m

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SITE MAP AND SAMPLING LOCATIONS

60-80 EDMONDSON AVENUE

Remediation Action Plan

230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue & 60-80 Edmondson Avenue Austral, New South Wales

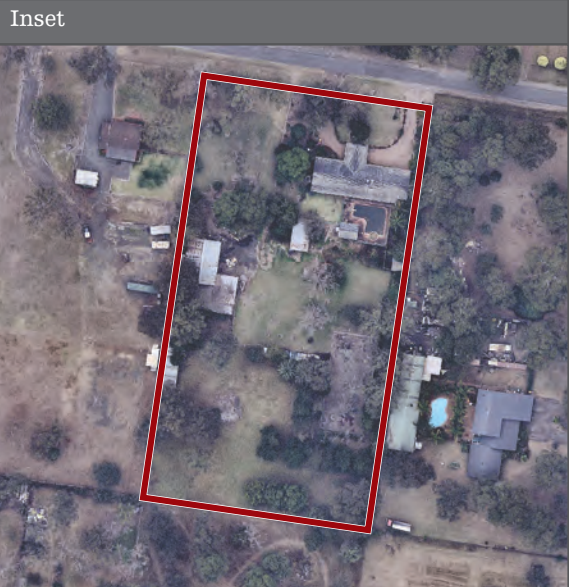
Project No. 1701013

Figure 2B



E:\Projects\100202_Austral RAP (Geo-Logix)\FIGURES\100202_FIG Sampling Locations 24.02.2017 TO

Inset



Key

- Site boundary
- Known extent of ACM on site surfaces
- Approximate extent of bonded and friable asbestos on surface
- Approximate extent of bonded asbestos in fill
- ACM fence

0 20m



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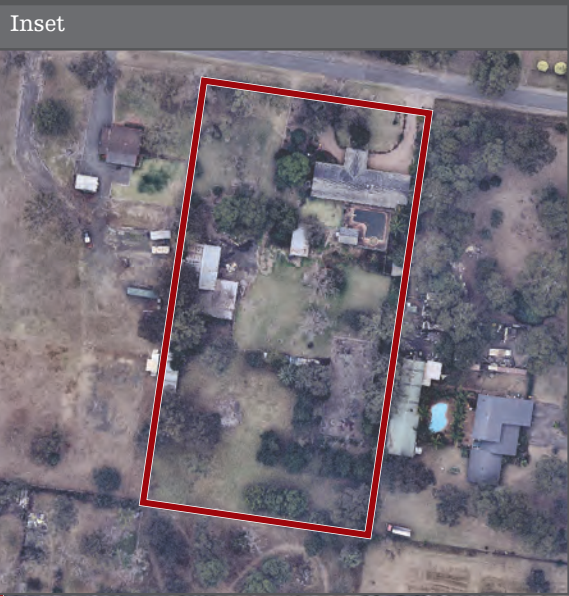
ESTIMATED REMEDIATION EXTENT
AEC 1 TO AEC 5

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

Project No. 1701013

Figure 4A

Inset



Key

- Site boundary
- Known extent of ACM on site surfaces
- Approximate extent of bonded asbestos in fill
- ACM fence

0 20m



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ESTIMATED REMEDIATION EXTENT
AEC 6

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

Project No. 1701013

Figure 4B

Inset



Project Area



Key

- Site boundary
- Fenceline
- Bonded and friable asbestos in fill associated with building waste
- Bonded and friable asbestos in surface soils

0 5m



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ESTIMATED REMEDIATION EXTENT
AEC 7

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

Project No. 1701013

Figure 4C



E:\Projects\100002 Austral RAP (GeoLogix)\FIGURES\100002 F4D Estimated Remediation Extent 28.02.2017

Key

Site boundary

Cadastral boundary

2m

Surface elevation

Estimated Remediation Extent

0

25m



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ESTIMATED REMEDIATION EXTENT

AEC 8

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

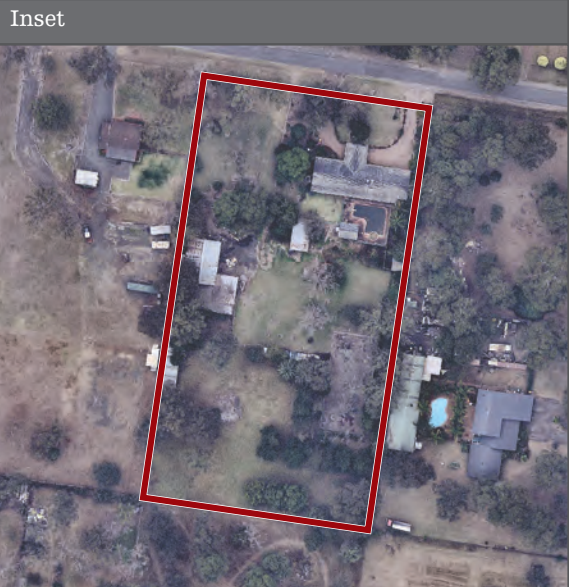
Project No. 1701013

Figure 4D



E:\Projects\100202 Austral RAP\GeoLogix\FIGURES\100202 F4E Estimated Remediation Extent 28.02.2017

Inset



Key

- Site boundary
- Known extent of ACM on site surfaces
- Approximate extent of bonded and friable asbestos on surface
- Approximate extent of bonded asbestos in fill
- ACM fence
- Validation sample location

0 20m



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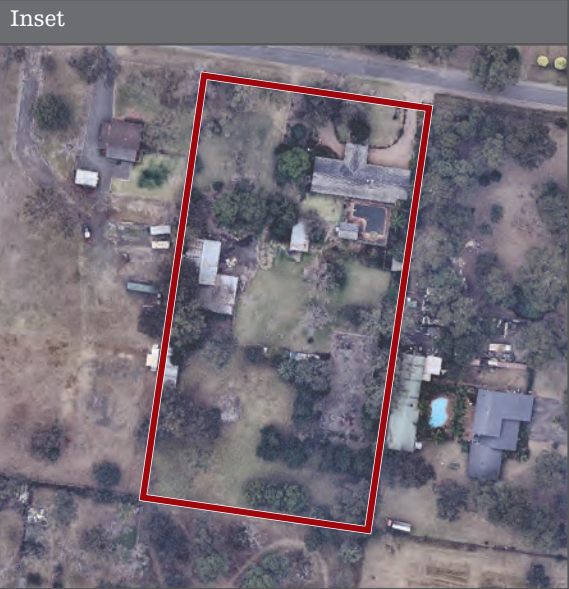
VALIDATION SAMPLE LOCATIONS
AEC 1, AEC 4 AND AEC 5

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

Project No. 1701013

Figure 5A

Inset



Key

- Site boundary
- Known extent of ACM on site surfaces
- Approximate extent of bonded asbestos in fill
- ACM fence
- Validation sample locations

0 20m



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VALIDATION SAMPLE LOCATIONS
AEC 6

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

Project No. 1701013

Figure 5B

Inset



Project Area



Key

- Site boundary
- Fenceline
- Bonded and friable asbestos in fill associated with building waste
- Bonded and friable asbestos in surface soils
- Validation sample locations



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VALIDATION SAMPLE LOCATIONS
AEC 7

Remediation Action Plan
230 Sixth Avenue, 155 Fifth Avenue and 50 Edmondson Avenue &
60-80 Edmondson Avenue Austral, New South Wales

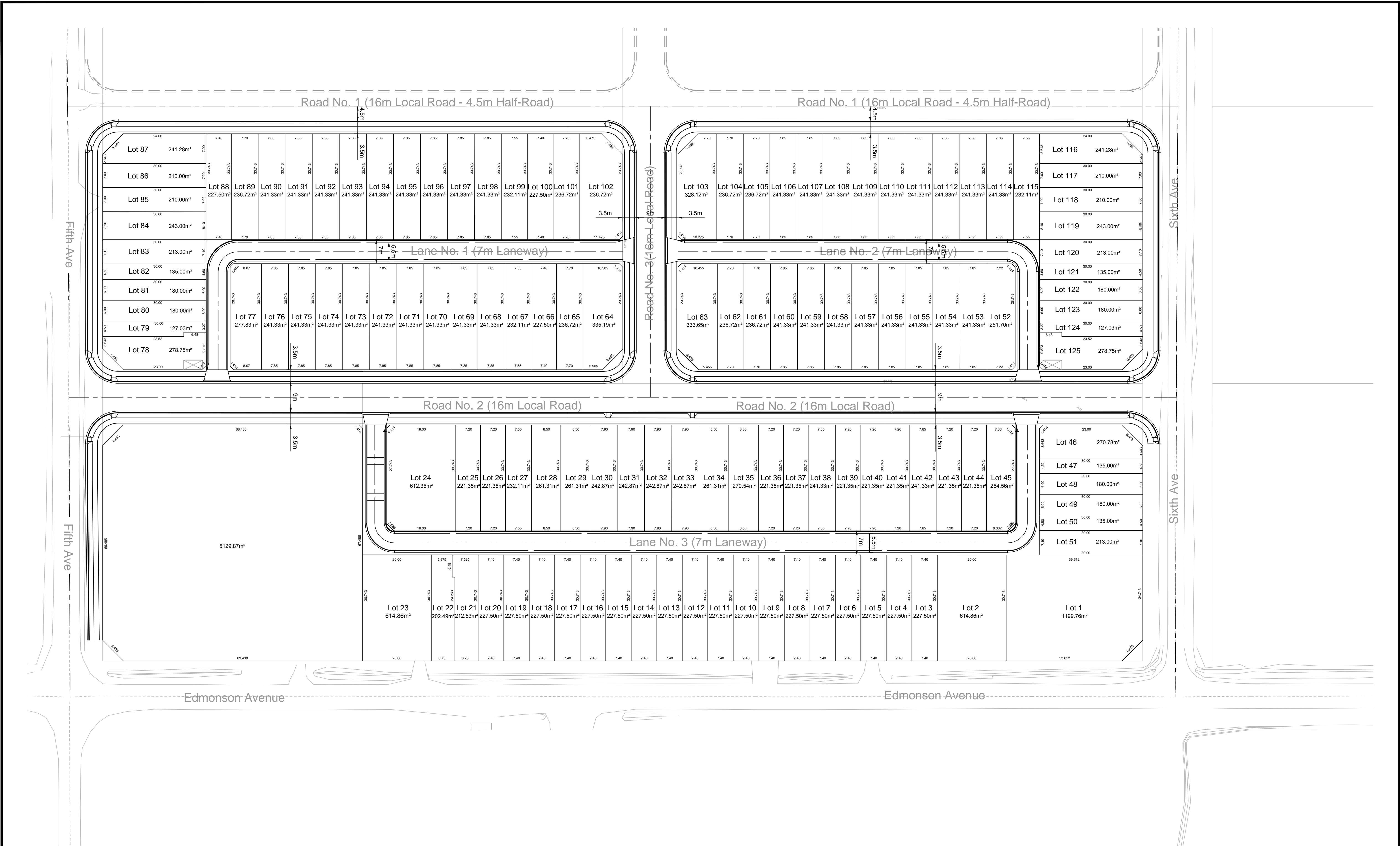
Project No. 1701013

Figure 5C



E:\Projects\100202 Austral RAP (GeoLogix)\FIGURES\100202 F4E Estimated Remediation Extent 28.02.2017

ATTACHMENT A



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P3	04.11.16	DRC	Issued for Development Application	DR	AC
P2	01.11.16	DRC	Re-issued for Information	DR	AC
P1	27.10.16	DRC	Issued for Information	DR	AC
Rev	Date	Drawn	Description	Ch'k'd	App'd

1:500 0 25m 50m



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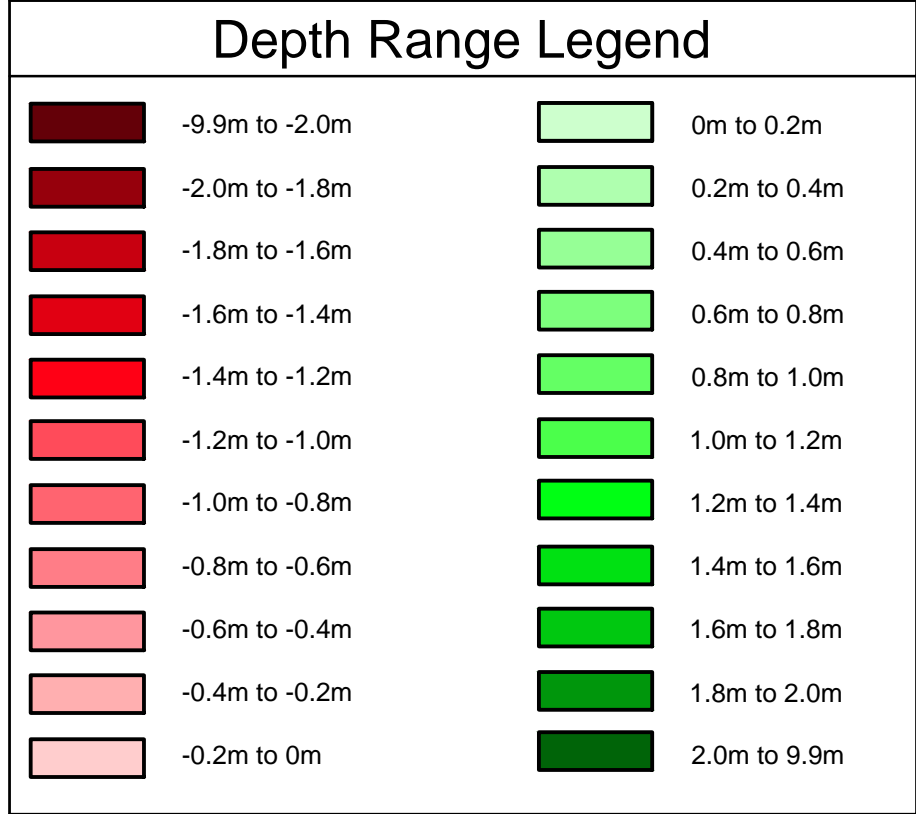
Client
Vantage Property Group Pty Ltd

Title
230 Sixth Avenue and
38 Edmondson Avenue, Austral
Proposed Subdivision Plan

Designed	P.Cavanagh	Eng check	D.Reilly
Drawn	D.Chapman	Coordination	J.Taylor
Dwg check	A.Singh	Approved	A.Cameron
Scale at A1	Status	Rev	Sec
1:500	PRE	P3	STD
Drawing Number MMD-369954-C-DR-AB-XX-0020			

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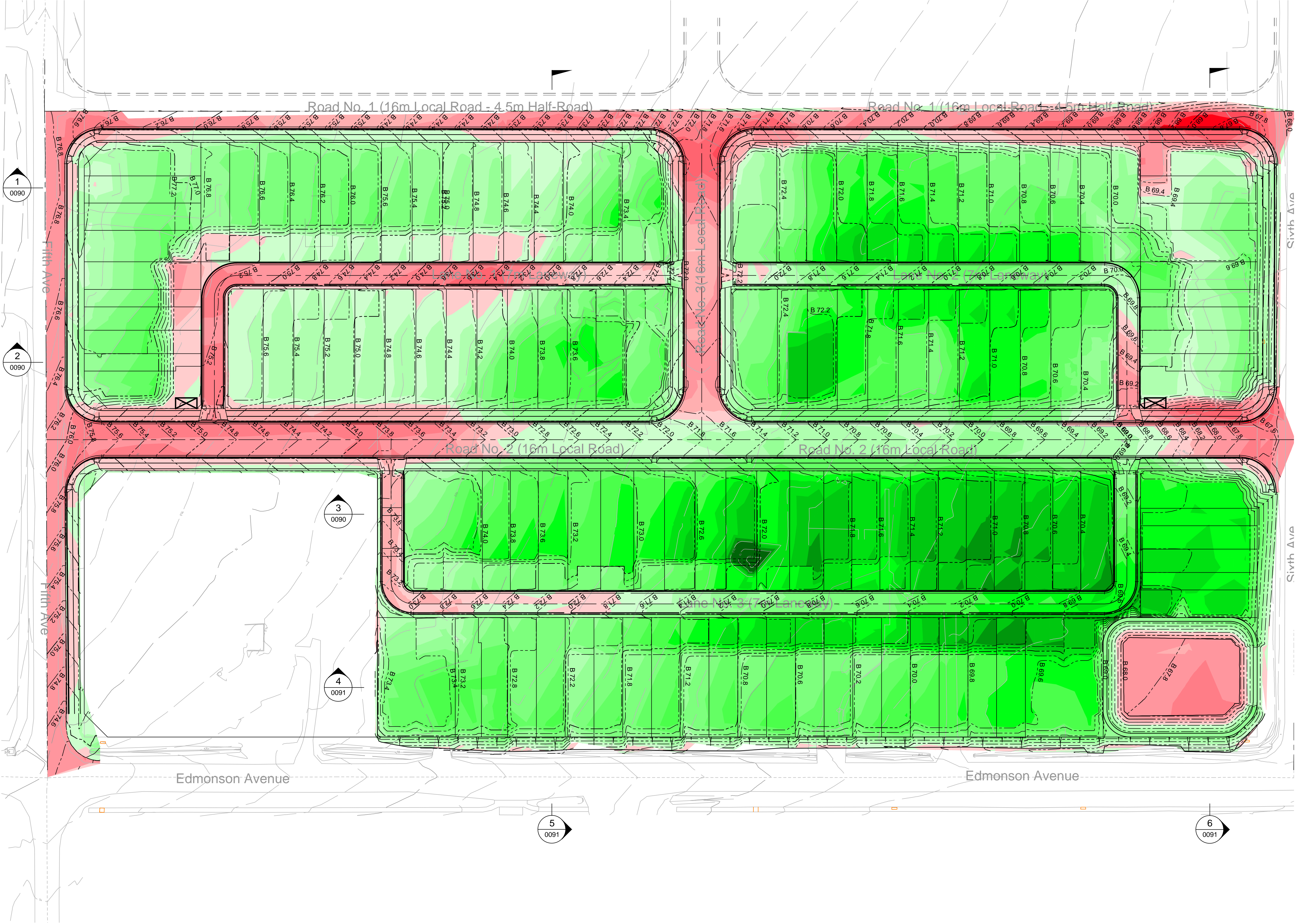
Earthworks Notes

Estimated volumes between existing survey and design surface levels. It is the contractors responsibility to verify all volumes prior to construction:

- 530mm depth allowance has been made for road benching as per indicative pavement profiles shown on drawings 0050 and 0051. To be confirmed in detailed design stage.
- Approximate stormwater basin volumes have been included.
- No allowance has been made for retaining wall footings.
- Volumes within stormwater trenches has not been calculated.
- No bulking factors have been applied.

Earthworks Volumes

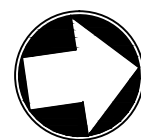
Approximate volumes	
Total Cut	= -4169m ³
Total Fill	= +28,606m ³
Balance	= +24,438



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Rev	Date	Drawn	Description	Ch'k'd	App'd
P2	04.11.16	DRC	Issued for Development Application	DR	AC
P1	01.11.16	DRC	Issued for Information	DR	AC

1:500 0 25m 50m



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Client
Vantage Property Group Pty Ltd

Title
230 Sixth Avenue and
38 Edmondson Avenue, Austral
Earthworks Depth Plan

Designed	P.Cavanagh	Eng check	D.Reilly
Drawn	D.Chapman	Coordination	J.Taylor
Dwg check	A.Singh	Approved	A.Cameron
Scale at A1	Status	Rev	Sec
1:500	PRE	P2	STD
Drawing Number MMD-369954-C-DR-AB-XX-0080			

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Preliminary - Not for Construction

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ATTACHMENT B

Map	Info
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ATTACHMENT C

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S1/0.2-0.3	S2/0.2-0.3	S3/0.3-0.5	S4/0.2-0.3	S5/0.2-0.3
	HSLs - A/B	Management	ESLs	Depth (m)	0.2-0.3	0.2-0.3	0.3-0.5	0.2-0.3	0.2-0.3
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		< 100	180	< 100	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	< 100	< 100
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S6/0.4-0.6	S7/0.2-0.3	S8/0.0-0.15	S9/0.0-0.15	S10/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.4-0.6	0.2-0.3	0.0-0.15	0.0-0.15	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		60	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		60	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		< 100	< 100	< 100	120	110
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	< 100	< 100
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

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nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S11/0.0-0.2	DS1	RPD_TS1	TS1	RPD_DS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	4/10/2016	4/10/2016	-	4/10/2016	-
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	nc	< 20	nc
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	nc	< 20	nc
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	nc	< 50	nc
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	< 50	nc	< 50	nc
TRH >C ₁₆ -C ₃₄	-	3,500	300		< 100	100	nc	< 100	nc
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	nc	< 100	nc
Benzene	0.6	-	50		< 0.1	< 0.1	nc	< 0.1	nc
Toluene	390	-	85		< 0.1	< 0.1	nc	< 0.1	nc
Ethylbenzene	NL	-	70		< 0.1	< 0.1	nc	< 0.1	nc
m&p-Xylenes	-	-	-		< 0.2	< 0.2	nc	< 0.2	nc
o-Xylene	-	-	-		< 0.1	< 0.1	nc	< 0.1	nc
Xylenes - Total	95	-	105		< 0.3	< 0.3	nc	< 0.3	nc
Naphthalene	4	-	-		< 0.5	< 0.5	nc	< 0.5	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S12/0.0-0.2	S13/0.0-0.15	S14/0.0-0.2	S15/0.1-0.25	S16/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.0-0.15	0.0-0.2	0.1-0.25	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	5/10/2016	5/10/2016	4/10/2016	4/10/2016	4/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	110	82	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	110	82	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		< 100	3,500	290	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	1,200	< 100	< 100	< 100
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S17/0.0-0.2	S18/0.35-0.55	S19/0.0-0.15	S20/0.0-0.15	S22/0.15-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.35-0.55	0.0-0.15	0.0-0.15	0.15-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	5/10/2016	4/10/2016	5/10/2016	5/10/2016	4/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		540	< 100	< 100	< 100	170
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		220	< 100	< 100	< 100	< 100
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

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	Criteria 1	Criteria 2	Criteria 3	Sample ID	S24/0.0-0.15	S25/0.4-0.6	S26/0.3-0.5	BH1/0.15-0.3	B1/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	0.4-0.6	0.3-0.5	0.15-0.3	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	4/10/2016	4/10/2016	4/10/2016	6/10/2016	6/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	< 50	170
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	< 50	< 50	< 50	170
TRH >C ₁₆ -C ₃₄	-	3,500	300		< 100	< 100	< 100	< 100	1,900
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	< 100	620
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	B2/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15
	Silt	Limits	Urban Res	Type	-
	0 to <1 m	Res/Park	Coarse Soil	Date	6/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		1,400
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		250
Benzene	0.6	-	50		< 0.1
Toluene	390	-	85		< 0.1
Ethylbenzene	NL	-	70		< 0.1
m&p-Xylenes	-	-	-		< 0.2
o-Xylene	-	-	-		< 0.1
Xylenes - Total	95	-	105		< 0.3
Naphthalene	4	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1a : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment Addendum

Project No.: 1701010

230 Sixth Avenue

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	D1/0.0-0.15	DS1	RPD_DS1	TS1	RPD_TS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	-	-	-	-
	Sand	Limits	Urban Res	Type	Fill	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	15-Feb-17	15-Feb-17	-	15-Feb-17	-
TRH C ₆ -C ₁₀	-	700	-		< 20	< 20	nc	< 20	nc
TRH C ₆ -C ₁₀ less BTEX (F1)	45	-	180		< 20	< 20	nc	< 20	nc
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	nc	< 50	nc
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	110	-	120		< 50	< 50	nc	< 50	nc
TRH >C ₁₆ -C ₃₄	-	2,500	300		< 100	< 100	nc	< 100	nc
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	nc	< 100	nc
Benzene	0.5	-	50		< 0.1	< 0.1	nc	< 0.1	nc
Toluene	160	-	85		< 0.1	< 0.1	nc	< 0.1	nc
Ethylbenzene	55	-	70		< 0.1	< 0.1	nc	< 0.1	nc
m&p-Xylenes	-	-	-		< 0.2	< 0.2	nc	< 0.2	nc
o-Xylene	-	-	-		< 0.1	< 0.1	nc	< 0.1	nc
Xylenes - Total	40	-	105		< 0.3	< 0.3	nc	< 0.3	nc
Naphthalene	3	-	-		< 0.5	< 0.5	nc	< 0.5	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, coarse material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of D1/0.0-0.15

TS1 = triplicate of D1/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1a : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment Addendum

Project No.: 1701010

230 Sixth Avenue

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	D1/0.25-0.3	D2/0.0-0.15	D2/0.25-0.3	D3/0.0-0.15	D3/0.25-0.3
	HSLs - A/B	Management	ESLs	Depth (m)	0.25-0.3	0.0-0.15	0.25-0.3	0.0-0.15	0.25-0.3
	Sand	Limits	Urban Res	Type	Fill	Fill	Fill	Fill	Fill
	0 to <1 m	Res/Park	Coarse Soil	Date	15-Feb-17	15-Feb-17	15-Feb-17	15-Feb-17	15-Feb-17
TRH C ₆ -C ₁₀	-	700	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	45	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	110	-	120		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	2,500	300		< 100	260	380	750	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	180	< 100
Benzene	0.5	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	160	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	55	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	40	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	3	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, coarse material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of D1/0.0-0.15

TS1 = triplicate of D1/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1a : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment Addendum

Project No.: 1701010

230 Sixth Avenue

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	D4/0.0-0.15	D4/0.25-0.3	D5/0.0-0.15	D5/0.25-0.3
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	0.25-0.3	0.0-0.15	0.25-0.3
	Sand	Limits	Urban Res	Type	FIII	FIII	FIII	FIII
	0 to <1 m	Res/Park	Coarse Soil	Date	15-Feb-17	15-Feb-17	15-Feb-17	15-Feb-17
TRH C ₆ -C ₁₀	-	700	-		< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	45	-	180		< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	110	-	120		< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	2,500	300		120	100	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	< 100
Benzene	0.5	-	50		< 0.1	< 0.1	< 0.1	< 0.1
Toluene	160	-	85		< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	55	-	70		< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	40	-	105		< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	3	-	-		< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, coarse material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, coarse soil.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of D1/0.0-0.15

TS1 = triplicate of D1/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S1/0.2-0.3	S2/0.2-0.3	S3/0.3-0.5	S4/0.2-0.3	S5/0.2-0.3
	HSLs - A/B	Management	ESLs	Depth (m)	0.2-0.3	0.2-0.3	0.3-0.5	0.2-0.3	0.2-0.3
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S1/0.2-0.3	S2/0.2-0.3	S3/0.3-0.5	S4/0.2-0.3	S5/0.2-0.3
	HSLs - A/B	Management	ESLs	Depth (m)	0.2-0.3	0.2-0.3	0.3-0.5	0.2-0.3	0.2-0.3
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S1/0.2-0.3	S2/0.2-0.3	S3/0.3-0.5	S4/0.2-0.3	S5/0.2-0.3
	HSLs - A/B	Management	ESLs	Depth (m)	0.2-0.3	0.2-0.3	0.3-0.5	0.2-0.3	0.2-0.3
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S6/0.4-0.6	S7/0.2-0.3	S8/0.0-0.15	S9/0.0-0.15	S10/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.4-0.6	0.2-0.3	0.0-0.15	0.0-0.15	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S6/0.4-0.6	S7/0.2-0.3	S8/0.0-0.15	S9/0.0-0.15	S10/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.4-0.6	0.2-0.3	0.0-0.15	0.0-0.15	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S6/0.4-0.6	S7/0.2-0.3	S8/0.0-0.15	S9/0.0-0.15	S10/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.4-0.6	0.2-0.3	0.0-0.15	0.0-0.15	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
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Total concentrations in mg/kg

- = assessment criteria not available

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DS1 = duplicate of S11/0.0-0.2

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S11/0.0-0.2	DS1	RPD_TS1	TS1	RPD_DS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	-	4/10/2016	-
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Total concentrations in mg/kg

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S11/0.0-0.2	DS1	RPD_TS1	TS1	RPD_DS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	-	4/10/2016	-
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	<i>nc</i>	< 0.1	<i>nc</i>
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S11/0.0-0.2	DS1	RPD_TS1	TS1	RPD_DS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	-	4/10/2016	-
Ethylbenzene	NL	-	125		< 0.1	< 0.1	nc	< 0.1	nc
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	nc	< 0.2	nc
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	nc	< 0.1	nc
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		< 0.1	< 0.1	nc	< 0.1	nc
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	nc	< 0.3	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
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Total concentrations in mg/kg

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NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S12/0.0-0.2	S13/0.0-0.15	S14/0.0-0.2	S15/0.1-0.25	S16/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.0-0.15	0.0-0.2	0.1-0.25	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	4/10/2016	4/10/2016	4/10/2016
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S12/0.0-0.2	S13/0.0-0.15	S14/0.0-0.2	S15/0.1-0.25	S16/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.0-0.15	0.0-0.2	0.1-0.25	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	4/10/2016	4/10/2016	4/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

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NL = not limiting

DS1 = duplicate of S11/0.0-0.2

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S12/0.0-0.2	S13/0.0-0.15	S14/0.0-0.2	S15/0.1-0.25	S16/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.0-0.15	0.0-0.2	0.1-0.25	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	4/10/2016	4/10/2016	4/10/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

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Total concentrations in mg/kg

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NL = not limiting

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S17/0.0-0.2	S18/0.35-0.55	S19/0.0-0.15	S20/0.0-0.15	S22/0.15-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.35-0.55	0.0-0.15	0.0-0.15	0.15-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	4/10/2016	5/10/2016	5/10/2016	4/10/2016
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Total concentrations in mg/kg

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S17/0.0-0.2	S18/0.35-0.55	S19/0.0-0.15	S20/0.0-0.15	S22/0.15-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.35-0.55	0.0-0.15	0.0-0.15	0.15-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	4/10/2016	5/10/2016	5/10/2016	4/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S17/0.0-0.2	S18/0.35-0.55	S19/0.0-0.15	S20/0.0-0.15	S22/0.15-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.2	0.35-0.55	0.0-0.15	0.0-0.15	0.15-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	4/10/2016	5/10/2016	5/10/2016	4/10/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S24/0.0-0.15	S25/0.4-0.6	S26/0.3-0.5	BH1/0.15-0.3	B1/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	0.4-0.6	0.3-0.5	0.15-0.3	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	6/10/2016	6/10/2016
1.1-Dichloroethane	-	-	-		--	--	--	< 0.5	< 0.5
1.1-Dichloroethene	-	-	-		--	--	--	< 0.5	< 0.5
1.1.1-Trichloroethane	-	-	-		--	--	--	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	< 0.5	< 0.5
1.1.2-Trichloroethane	-	-	-		--	--	--	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	< 0.5	< 0.5
1.2-Dibromoethane	-	-	-		--	--	--	< 0.5	< 0.5
1.2-Dichlorobenzene	-	-	-		--	--	--	< 0.5	< 0.5
1.2-Dichloroethane	-	-	-		--	--	--	< 0.5	< 0.5
1.2-Dichloropropane	-	-	-		--	--	--	< 0.5	< 0.5
1.2.3-Trichloropropane	-	-	-		--	--	--	< 0.5	< 0.5
1.2.4-Trimethylbenzene	-	-	-		--	--	--	< 0.5	< 0.5
1.3-Dichlorobenzene	-	-	-		--	--	--	< 0.5	< 0.5
1.3-Dichloropropane	-	-	-		--	--	--	< 0.5	< 0.5
1.3.5-Trimethylbenzene	-	-	-		--	--	--	< 0.5	< 0.5
1.4-Dichlorobenzene	-	-	-		--	--	--	< 0.5	< 0.5
2-Butanone (MEK)	-	-	-		--	--	--	< 0.5	< 0.5
2-Propanone (Acetone)	-	-	-		--	--	--	< 5	< 5
4-Chlorotoluene	-	-	-		--	--	--	< 0.5	< 0.5

Notes:

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	Criteria 1	Criteria 2	Criteria 3	Sample ID	S24/0.0-0.15	S25/0.4-0.6	S26/0.3-0.5	BH1/0.15-0.3	B1/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	0.4-0.6	0.3-0.5	0.15-0.3	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	6/10/2016	6/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	< 0.5	< 0.5
Allyl chloride	-	-	-		--	--	--	< 0.05	< 0.05
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	--	--	< 0.5	< 0.5
Bromochloromethane	-	-	-		--	--	--	< 0.5	< 0.5
Bromodichloromethane	-	-	-		--	--	--	< 0.5	< 0.5
Bromoform	-	-	-		--	--	--	< 0.5	< 0.5
Bromomethane	-	-	-		--	--	--	< 0.5	< 0.5
Carbon disulfide	-	-	-		--	--	--	< 0.5	< 0.5
Carbon Tetrachloride	-	-	-		--	--	--	< 0.5	< 0.5
Chlorobenzene	-	-	-		--	--	--	< 0.5	< 0.5
Chloroethane	-	-	-		--	--	--	< 0.5	< 0.5
Chloroform	-	-	-		--	--	--	< 0.5	< 0.5
Chloromethane	-	-	-		--	--	--	< 0.5	< 0.5
cis-1.2-Dichloroethene	-	-	-		--	--	--	< 0.5	< 0.5
cis-1.3-Dichloropropene	-	-	-		--	--	--	< 0.5	< 0.5
Dibromochloromethane	-	-	-		--	--	--	< 0.5	< 0.5
Dibromomethane	-	-	-		--	--	--	< 0.5	< 0.5
Dichlorodifluoromethane	-	-	-		--	--	--	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S24/0.0-0.15	S25/0.4-0.6	S26/0.3-0.5	BH1/0.15-0.3	B1/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	0.4-0.6	0.3-0.5	0.15-0.3	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	6/10/2016	6/10/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	--	--	< 0.5	< 0.5
Isopropyl benzene (Cumene)	-	-	-		--	--	--	< 0.5	< 0.5
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	--	--	< 0.5	< 0.5
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	--	--	< 0.5	< 0.5
Tetrachloroethene	-	-	-		--	--	--	< 0.5	< 0.5
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	< 0.5	< 0.5
trans-1.3-Dichloropropene	-	-	-		--	--	--	< 0.5	< 0.5
Trichloroethene	-	-	-		--	--	--	< 0.5	< 0.5
Trichlorofluoromethane	-	-	-		--	--	--	< 0.5	< 0.5
Vinyl chloride	-	-	-		--	--	--	< 0.5	< 0.5
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	B2/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15
	Silt	Limits	Urban Res	Type	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/10/2016
1.1-Dichloroethane	-	-	-		< 0.5
1.1-Dichloroethene	-	-	-		< 0.5
1.1.1-Trichloroethane	-	-	-		< 0.5
1.1.1.2-Tetrachloroethane	-	-	-		< 0.5
1.1.2-Trichloroethane	-	-	-		< 0.5
1.1.2.2-Tetrachloroethane	-	-	-		< 0.5
1.2-Dibromoethane	-	-	-		< 0.5
1.2-Dichlorobenzene	-	-	-		< 0.5
1.2-Dichloroethane	-	-	-		< 0.5
1.2-Dichloropropane	-	-	-		< 0.5
1.2.3-Trichloropropane	-	-	-		< 0.5
1.2.4-Trimethylbenzene	-	-	-		< 0.5
1.3-Dichlorobenzene	-	-	-		< 0.5
1.3-Dichloropropane	-	-	-		< 0.5
1.3.5-Trimethylbenzene	-	-	-		< 0.5
1.4-Dichlorobenzene	-	-	-		< 0.5
2-Butanone (MEK)	-	-	-		< 0.5
2-Propanone (Acetone)	-	-	-		< 5
4-Chlorotoluene	-	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	B2/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15
	Silt	Limits	Urban Res	Type	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		< 0.5
Allyl chloride	-	-	-		< 0.05
Benzene	0.6	-	65		< 0.1
Bromobenzene	-	-	-		< 0.5
Bromochloromethane	-	-	-		< 0.5
Bromodichloromethane	-	-	-		< 0.5
Bromoform	-	-	-		< 0.5
Bromomethane	-	-	-		< 0.5
Carbon disulfide	-	-	-		< 0.5
Carbon Tetrachloride	-	-	-		< 0.5
Chlorobenzene	-	-	-		< 0.5
Chloroethane	-	-	-		< 0.5
Chloroform	-	-	-		< 0.5
Chloromethane	-	-	-		< 0.5
cis-1.2-Dichloroethene	-	-	-		< 0.5
cis-1.3-Dichloropropene	-	-	-		< 0.5
Dibromochloromethane	-	-	-		< 0.5
Dibromomethane	-	-	-		< 0.5
Dichlorodifluoromethane	-	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	B2/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15
	Silt	Limits	Urban Res	Type	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/10/2016
Ethylbenzene	NL	-	125		< 0.1
Iodomethane	-	-	-		< 0.5
Isopropyl benzene (Cumene)	-	-	-		< 0.5
m&p-Xylenes	-	-	-		< 0.2
Methylene Chloride	-	-	-		< 0.5
o-Xylene	-	-	-		< 0.1
Styrene	-	-	-		< 0.5
Tetrachloroethene	-	-	-		< 0.5
Toluene	390	-	105		< 0.1
trans-1.2-Dichloroethene	-	-	-		< 0.5
trans-1.3-Dichloropropene	-	-	-		< 0.5
Trichloroethene	-	-	-		< 0.5
Trichlorofluoromethane	-	-	-		< 0.5
Vinyl chloride	-	-	-		< 0.5
Xylenes - Total	95	-	45		< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S1/0.2-0.3	S2/0.2-0.3	S3/0.3-0.5	S4/0.2-0.3	S5/0.2-0.3
		HSLs - A/B	ESLs	Depth (m)	0.2-0.3	0.2-0.3	0.3-0.5	0.2-0.3	0.2-0.3
	HILs - A	Silt	Urban Res	Type	-	-	-	-	-
		0 to <1 m	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	0.7	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	0.7		< 0.5	1.2	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	1.1	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	1.3	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	0.8	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-		< 0.5	0.7	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	1.5	< 0.5	1.5	< 0.5
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	0.8	< 0.5	< 0.5	< 0.5
Naphthalene	-	4	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	1.1	< 0.5	1	< 0.5
Pyrene	-	-	-		< 0.5	1.6	< 0.5	1.3	< 0.5
Benzo(a)pyrene TEQ	3	-	-		0.6	1.8	0.6	0.6	0.6
Total PAH	300	-	-		< 0.5	10.8	< 0.5	3.8	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S6/0.4-0.6	S7/0.2-0.3	S8/0.0-0.15	S9/0.0-0.15	S10/0.0-0.15
		HSLs - A/B	ESLs	Depth (m)	0.4-0.6	0.2-0.3	0.0-0.15	0.0-0.15	0.0-0.15
	HILs - A	Silt	Urban Res	Type	-	-	-	-	-
		0 to <1 m	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	0.7	< 0.5
Benzo(a)pyrene	-	-	0.7		< 0.5	< 0.5	< 0.5	0.8	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	0.6	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	0.8	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	1.1	< 0.5
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	0.9	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	2.6	< 0.5
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	-	4	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	1.4	< 0.5
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	2.4	< 0.5
Benzo(a)pyrene TEQ	3	-	-		0.6	0.6	0.6	1.3	0.6
Total PAH	300	-	-		< 0.5	< 0.5	< 0.5	11.3	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S11/0.0-0.2	DS1	RPD_TS1	TS1	RPD_DS1
		HSLs - A/B	ESLs	Depth (m)	0.0-0.2	-	-	-	-
	HILs - A	Silt	Urban Res	Type	-	-	-	-	-
		0 to <1 m	Fine Soil	Date	4/10/2016	4/10/2016	-	4/10/2016	-
Acenaphthene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Acenaphthylene	-	-	-		< 0.5	0.6	nc	< 0.5	nc
Anthracene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Benzo(a)pyrene	-	-	0.7		< 0.5	< 0.5	nc	< 0.5	nc
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Chrysene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Fluoranthene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Fluorene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Naphthalene	-	4	-		< 0.5	< 0.5	nc	< 0.5	nc
Phenanthrene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Pyrene	-	-	-		< 0.5	< 0.5	nc	< 0.5	nc
Benzo(a)pyrene TEQ	3	-	-		0.6	0.6	0%	0.6	0%
Total PAH	300	-	-		< 0.5	0.6	nc	< 0.5	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S12/0.0-0.2	S13/0.0-0.15	S14/0.0-0.2	S15/0.1-0.25	S16/0.0-0.15
		HSLs - A/B	ESLs	Depth (m)	0.0-0.2	0.0-0.15	0.0-0.2	0.1-0.25	0.0-0.15
	HILs - A	Silt	Urban Res	Type	-	-	-	-	-
		0 to <1 m	Fine Soil	Date	5/10/2016	5/10/2016	4/10/2016	4/10/2016	4/10/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.6
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	0.7		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	-	4	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	3	-	-		0.6	0.6	0.6	0.6	0.6
Total PAH	300	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.6

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S17/0.0-0.2	S18/0.35-0.55	S19/0.0-0.15	S20/0.0-0.15	S22/0.15-0.35
		HSLs - A/B	ESLs	Depth (m)	0.0-0.2	0.35-0.55	0.0-0.15	0.0-0.15	0.15-0.35
	HILs - A	Silt	Urban Res	Type	-	-	-	-	-
		0 to <1 m	Fine Soil	Date	5/10/2016	4/10/2016	5/10/2016	5/10/2016	4/10/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	1.2
Benzo(a)pyrene	-	-	0.7		< 0.5	< 0.5	< 0.5	< 0.5	0.8
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.9
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.7
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.8
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	1.4
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	3.3
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	-	4	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.8
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	2.7
Benzo(a)pyrene TEQ	3	-	-		0.6	0.6	0.6	0.6	1.4
Total PAH	300	-	-		< 0.5	< 0.5	< 0.5	< 0.5	12.6

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S24/0.0-0.15	S25/0.4-0.6	S26/0.3-0.5	BH1/0.15-0.3	B1/0.0-0.15
		HSLs - A/B	ESLs	Depth (m)	0.0-0.15	0.4-0.6	0.3-0.5	0.15-0.3	0.0-0.15
	HILs - A	Silt	Urban Res	Type	-	-	-	-	-
		0 to <1 m	Fine Soil	Date	4/10/2016	4/10/2016	4/10/2016	6/10/2016	6/10/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	0.7		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	-	4	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	3	-	-		0.6	0.6	0.6	0.6	0.6
Total PAH	300	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	B2/0.0-0.15
		HSLs - A/B	ESLs	Depth (m)	0.0-0.15
	HILs - A	Silt	Urban Res	Type	-
		0 to <1 m	Fine Soil	Date	6/10/2016
Acenaphthene	-	-	-		< 0.5
Acenaphthylene	-	-	-		< 0.5
Anthracene	-	-	-		< 0.5
Benz(a)anthracene	-	-	-		< 0.5
Benzo(a)pyrene	-	-	0.7		< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5
Chrysene	-	-	-		< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5
Fluoranthene	-	-	-		< 0.5
Fluorene	-	-	-		< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5
Naphthalene	-	4	-		< 0.5
Phenanthrene	-	-	-		< 0.5
Pyrene	-	-	-		< 0.5
Benzo(a)pyrene TEQ	3	-	-		0.6
Total PAH	300	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

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Total concentrations in mg/kg

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DS1 = duplicate of S11/0.0-0.2

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	S1/0.2-0.3	S2/0.2-0.3	S3/0.3-0.5	S4/0.2-0.3	S5/0.2-0.3
		EILS	Depth (m)	0.2-0.3	0.2-0.3	0.3-0.5	0.2-0.3	0.2-0.3
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	180		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Geo-Logix

Geo-Logix

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Total concentrations in mg/kg
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DS1 = duplicate of S11/0.0-0.2
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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	S6/0.4-0.6	S7/0.2-0.3	S8/0.0-0.15	S9/0.0-0.15	S10/0.0-0.15
		EILS	Depth (m)	0.4-0.6	0.2-0.3	0.0-0.15	0.0-0.15	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	4/10/2016	4/10/2016	4/10/2016	4/10/2016	4/10/2016
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	180		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

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[illegible]

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of S11/0.0-0.2
TS1 = triplicate of S11/0.0-0.2
DS2 = duplicate of S23/0.0-0.15
TS2 = triplicate of S23/0.0-0.15
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nc = RPD not calculated, one or both samples below laboratory reporting limit
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Page 4 of 20

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	S11/0.0-0.2	DS1	TS1	RPD_TS1	RPD_DS1
		EILS	Depth (m)	0.0-0.2	-	-	-	-
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	4/10/2016	4/10/2016	4/10/2016	-	-
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	nc	nc
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	nc	nc
4.4'-DDT	-	180		< 0.05	< 0.05	< 0.05	nc	nc
a-BHC	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Aldrin	-	-		< 0.05	< 0.05	< 0.05	nc	nc
b-BHC	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Chlordanes - Total	50	-		< 0.1	< 0.1	< 0.1	nc	nc
d-BHC	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endrin	10	-		< 0.05	< 0.05	< 0.05	nc	nc
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	nc	nc
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Heptachlor	6	-		< 0.05	< 0.05	< 0.05	nc	nc
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Hexachlorobenzene	10	-		< 0.05	< 0.05	< 0.05	nc	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

Notes:

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-- = sample not analysed

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	S12/0.0-0.2	S13/0.0-0.15	S14/0.0-0.2	S15/0.1-0.25	S16/0.0-0.15
		EILS	Depth (m)	0.0-0.2	0.0-0.15	0.0-0.2	0.1-0.25	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	5/10/2016	5/10/2016	4/10/2016	4/10/2016	4/10/2016
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	180		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Bold/red indicates exceedance of assessment criteria

[illegible]

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.
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DS2 = duplicate of S23/0.0-0.15
TS2 = triplicate of S23/0.0-0.15
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	S17/0.0-0.2	S18/0.35-0.55	S19/0.0-0.15	S20/0.0-0.15	S21/0.0-0.15
		EILS	Depth (m)	0.0-0.2	0.35-0.55	0.0-0.15	0.0-0.15	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	5/10/2016	4/10/2016	5/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	180		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-		< 0.05	< 0.05	0.48	< 0.05	< 0.05
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Geo-Logix

Geo-Logix

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of S11/0.0-0.2
TS1 = triplicate of S11/0.0-0.2
DS2 = duplicate of S23/0.0-0.15
TS2 = triplicate of S23/0.0-0.15
RPD = relative percent difference of duplicate/triplicate
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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

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	Criteria 1	Criteria 2	Sample ID	S22/0.15-0.35	S23/0.0-0.15	DS2	TS2	RPD_TS2
		EILS	Depth (m)	0.15-0.35	0.0-0.15	-	-	-
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	4/10/2016	5/10/2016	5/10/2016	4/10/2016	-
4.4'-DDD	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDT	-	180		< 0.05	< 0.05	< 0.05	< 0.05	nc
a-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Aldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
b-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Chlordanes - Total	50	-		< 0.1	< 0.1	< 0.1	< 0.1	nc
d-BHC	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Dieldrin	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan I	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan II	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan sulphate	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin	10	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin aldehyde	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin ketone	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
g-BHC (Lindane)	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor	6	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor epoxide	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Hexachlorobenzene	10	-		< 0.05	< 0.05	< 0.05	< 0.05	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	RPD_DS2	S24/0.0-0.15	S25/0.4-0.6	S26/0.3-0.5	SS1/0.0-0.15
		EILS	Depth (m)	-	0.0-0.15	0.4-0.6	0.3-0.5	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	-	4/10/2016	4/10/2016	4/10/2016	5/10/2016
4.4'-DDD	-	-		nc	< 0.05	< 0.05	< 0.05	--
4.4'-DDE	-	-		nc	< 0.05	< 0.05	< 0.05	--
4.4'-DDT	-	180		nc	< 0.05	< 0.05	< 0.05	--
a-BHC	-	-		nc	< 0.05	< 0.05	< 0.05	--
Aldrin	-	-		nc	< 0.05	< 0.05	< 0.05	--
b-BHC	-	-		nc	< 0.05	< 0.05	< 0.05	--
Chlordanes - Total	50	-		nc	< 0.1	< 0.1	< 0.1	--
d-BHC	-	-		nc	< 0.05	< 0.05	< 0.05	--
Dieldrin	-	-		nc	< 0.05	< 0.05	< 0.05	--
Endosulfan I	-	-		nc	< 0.05	< 0.05	< 0.05	--
Endosulfan II	-	-		nc	< 0.05	< 0.05	< 0.05	--
Endosulfan sulphate	-	-		nc	< 0.05	< 0.05	< 0.05	--
Endrin	10	-		nc	< 0.05	< 0.05	< 0.05	--
Endrin aldehyde	-	-		nc	< 0.05	< 0.05	< 0.05	--
Endrin ketone	-	-		nc	< 0.05	< 0.05	< 0.05	--
g-BHC (Lindane)	-	-		nc	< 0.05	< 0.05	< 0.05	--
Heptachlor	6	-		nc	< 0.05	< 0.05	< 0.05	--
Heptachlor epoxide	-	-		nc	< 0.05	< 0.05	< 0.05	--
Hexachlorobenzene	10	-		nc	< 0.05	< 0.05	< 0.05	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

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	Criteria 1	Criteria 2	Sample ID	SS2/0.0-0.15	SS3/0.0-0.15	SS4/0.0-0.15	SS5/0.0-0.15	SS6/0.0-0.15
		EILS	Depth (m)	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-		--	--	--	--	--
4.4'-DDE	-	-		--	--	--	--	--
4.4'-DDT	-	180		--	--	--	--	--
a-BHC	-	-		--	--	--	--	--
Aldrin	-	-		--	--	--	--	--
b-BHC	-	-		--	--	--	--	--
Chlordanes - Total	50	-		--	--	--	--	--
d-BHC	-	-		--	--	--	--	--
Dieldrin	-	-		--	--	--	--	--
Endosulfan I	-	-		--	--	--	--	--
Endosulfan II	-	-		--	--	--	--	--
Endosulfan sulphate	-	-		--	--	--	--	--
Endrin	10	-		--	--	--	--	--
Endrin aldehyde	-	-		--	--	--	--	--
Endrin ketone	-	-		--	--	--	--	--
g-BHC (Lindane)	-	-		--	--	--	--	--
Heptachlor	6	-		--	--	--	--	--
Heptachlor epoxide	-	-		--	--	--	--	--
Hexachlorobenzene	10	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	SS2/0.0-0.15	SS3/0.0-0.15	SS4/0.0-0.15	SS5/0.0-0.15	SS6/0.0-0.15
		EILS	Depth (m)	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
Methoxychlor	300	-		--	--	--	--	--
Toxaphene	20	-		--	--	--	--	--
Aldrin + Dieldrin	6	-		--	--	--	--	--
Endosulfans - Total	270	-		--	--	--	--	--
DDD + DDE + DDT	240	-		--	--	--	--	--
Scheduled Chemical Wastes	-	-		--	--	--	--	--

Notes:

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Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	SS7/0.0-0.15	SS8/0.0-0.15	BH1/0.15-0.3	B1/0.0-0.15	B2/0.0-0.15
		EILS	Depth (m)	0.0-0.15	0.0-0.15	0.15-0.3	0.0-0.15	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	5/10/2016	5/10/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-		--	--	--	--	--
4.4'-DDE	-	-		--	--	--	--	--
4.4'-DDT	-	180		--	--	--	--	--
a-BHC	-	-		--	--	--	--	--
Aldrin	-	-		--	--	--	--	--
b-BHC	-	-		--	--	--	--	--
Chlordanes - Total	50	-		--	--	--	--	--
d-BHC	-	-		--	--	--	--	--
Dieldrin	-	-		--	--	--	--	--
Endosulfan I	-	-		--	--	--	--	--
Endosulfan II	-	-		--	--	--	--	--
Endosulfan sulphate	-	-		--	--	--	--	--
Endrin	10	-		--	--	--	--	--
Endrin aldehyde	-	-		--	--	--	--	--
Endrin ketone	-	-		--	--	--	--	--
g-BHC (Lindane)	-	-		--	--	--	--	--
Heptachlor	6	-		--	--	--	--	--
Heptachlor epoxide	-	-		--	--	--	--	--
Hexachlorobenzene	10	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	SS7/0.0-0.15	SS8/0.0-0.15	BH1/0.15-0.3	B1/0.0-0.15	B2/0.0-0.15
		EILS	Depth (m)	0.0-0.15	0.0-0.15	0.15-0.3	0.0-0.15	0.0-0.15
	HILs - A	Urban	Type	-	-	-	-	-
		Residential	Date	5/10/2016	5/10/2016	6/10/2016	6/10/2016	6/10/2016
Methoxychlor	300	-		--	--	--	--	--
Toxaphene	20	-		--	--	--	--	--
Aldrin + Dieldrin	6	-		--	--	--	--	--
Endosulfans - Total	270	-		--	--	--	--	--
DDD + DDE + DDT	240	-		--	--	--	--	--
Scheduled Chemical Wastes	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

	Criteria 1	Criteria 2	Sample ID	C1
		EILS	Depth (m)	-
	HILs - A	Urban	Type	-
		Residential	Date	4/10/2016
4.4'-DDD	-	-		< 0.05
4.4'-DDE	-	-		< 0.05
4.4'-DDT	-	180		< 0.05
a-BHC	-	-		< 0.05
Aldrin	-	-		< 0.05
b-BHC	-	-		< 0.05
Chlordanes - Total	50	-		< 0.1
d-BHC	-	-		< 0.05
Dieldrin	-	-		< 0.05
Endosulfan I	-	-		< 0.05
Endosulfan II	-	-		< 0.05
Endosulfan sulphate	-	-		< 0.05
Endrin	10	-		< 0.05
Endrin aldehyde	-	-		< 0.05
Endrin ketone	-	-		< 0.05
g-BHC (Lindane)	-	-		< 0.05
Heptachlor	6	-		< 0.05
Heptachlor epoxide	-	-		< 0.05
Hexachlorobenzene	10	-		< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed



Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

230 Sixth Avenue,

Austral NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Bold/red indicates exceedance of assessment criteria

Criteria 2 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of S11/0.0-0.2

TS1 = triplicate of S11/0.0-0.2

DS2 = duplicate of S23/0.0-0.15

TS2 = triplicate of S23/0.0-0.15

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed



Table 6 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

230 Sixth Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

Amo = Amosite asbestos detected

Chy = Chrysotile asbestos detected

Cro = Crocidolite asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 6 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

230 Sixth Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

Amo = Amosite asbestos detected

Chy = Chrysotile asbestos detected

Cro = Crocidolite asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 6 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

230 Sixth Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

Amo = Amosite asbestos detected

Chy = Chrysotile asbestos detected

Cro = Crocidolite asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 6a : Summary of Soil Analytical Data - Asbestos
Delineation Investigation
Project No.: 1701010

230 Sixth Avenue,
Austral NSW 2179

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed



Table 6a : Summary of Soil Analytical Data - Asbestos
Delineation Investigation
Project No.: 1701010

230 Sixth Avenue,
Austral NSW 2179

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed



Table 6a : Summary of Soil Analytical Data - Asbestos
Delineation Investigation
Project No.: 1701010

230 Sixth Avenue,
Austral NSW 2179

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed



Table 6a : Summary of Soil Analytical Data - Asbestos
Delineation Investigation
Project No.: 1701010

230 Sixth Avenue,
Austral NSW 2179

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed



Table 6a : Summary of Soil Analytical Data - Asbestos
Delineation Investigation
Project No.: 1701010

230 Sixth Avenue,
Austral NSW 2179

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed



Table 6a : Summary of Soil Analytical Data - Asbestos
Delineation Investigation
Project No.: 1701010

230 Sixth Avenue,
Austral NSW 2179

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed

ATTACHMENT D

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	T1/1/0.2	T1/2/0.8	DS1	RPD_DS1	TS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.2	0.8	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/09/2016	6/09/2016	6/09/2016	-	6/09/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	nc	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	nc	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	nc	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	< 50	< 50	nc	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	1,300		< 100	< 100	160	nc	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	5,600		< 100	< 100	< 100	nc	< 100
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	nc	< 0.1
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	nc	< 0.1
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	nc	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	nc	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	nc	< 0.1
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	nc	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	nc	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	RPD_TS1	T1/3/0.2	T2/1/0.3	T2/2/0.5	T2/3/0.2
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.2	0.3	0.5	0.2
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
TRH C ₆ -C ₁₀	-	800	-		nc	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		nc	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		nc	< 50	56	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		nc	< 50	56	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	1,300		nc	160	230	< 100	130
TRH >C ₃₄ -C ₄₀	-	10,000	5,600		nc	< 100	< 100	< 100	< 100
Benzene	0.6	-	65		nc	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	105		nc	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	125		nc	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		nc	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		nc	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	45		nc	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS1	SS6	SS7	SS8	SS9
	HSLs - A/B	Management	ESLs	Depth (m)	-	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	--	--	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	--	--	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	--	--	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	--	--	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	1,300		100	--	--	160	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	5,600		< 100	--	--	< 100	< 100
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	0.7
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	0.2
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	--	--	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS10	BH1/0.1-0.2	SP1/0.3-0.35	SP2/0.3-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.1-0.2	0.3-0.35	0.3-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	6/10/2016	5/10/2016	5/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		78	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		78	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	1,300		300	300	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	5,600		< 100	240	< 100	< 100
Benzene	0.6	-	65		0.2	< 0.1	< 0.1	< 0.1
Toluene	390	-	105		0.2	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	125		0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	T1/1/0.2	T1/2/0.8	DS1	RPD_DS1	TS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.2	0.8	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/09/2016	6/09/2016	6/09/2016	-	6/09/2016
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	T1/1/0.2	T1/2/0.8	DS1	RPD_DS1	TS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.2	0.8	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/09/2016	6/09/2016	6/09/2016	-	6/09/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	nc	< 0.1
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	T1/1/0.2	T1/2/0.8	DS1	RPD_DS1	TS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.2	0.8	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	6/09/2016	6/09/2016	6/09/2016	-	6/09/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	nc	< 0.1
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	nc	< 0.2
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	nc	< 0.1
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	nc	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	nc	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	RPD_TS1	T1/3/0.2	T2/1/0.3	T2/2/0.5	T2/3/0.2
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.2	0.3	0.5	0.2
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
1.1-Dichloroethane	-	-	-		--	--	--	--	--
1.1-Dichloroethene	-	-	-		--	--	--	--	--
1.1.1-Trichloroethane	-	-	-		--	--	--	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.1.2-Trichloroethane	-	-	-		--	--	--	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	--	--	--	--
1.2-Dibromoethane	-	-	-		--	--	--	--	--
1.2-Dichlorobenzene	-	-	-		--	--	--	--	--
1.2-Dichloroethane	-	-	-		--	--	--	--	--
1.2-Dichloropropane	-	-	-		--	--	--	--	--
1.2.3-Trichloropropane	-	-	-		--	--	--	--	--
1.2.4-Trimethylbenzene	-	-	-		--	--	--	--	--
1.3-Dichlorobenzene	-	-	-		--	--	--	--	--
1.3-Dichloropropane	-	-	-		--	--	--	--	--
1.3.5-Trimethylbenzene	-	-	-		--	--	--	--	--
1.4-Dichlorobenzene	-	-	-		--	--	--	--	--
2-Butanone (MEK)	-	-	-		--	--	--	--	--
2-Propanone (Acetone)	-	-	-		--	--	--	--	--
4-Chlorotoluene	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

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NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	RPD_TS1	T1/3/0.2	T2/1/0.3	T2/2/0.5	T2/3/0.2
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.2	0.3	0.5	0.2
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	--	--	--	--
Allyl chloride	-	-	-		--	--	--	--	--
Benzene	0.6	-	65		nc	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	--	--	--	--
Bromochloromethane	-	-	-		--	--	--	--	--
Bromodichloromethane	-	-	-		--	--	--	--	--
Bromoform	-	-	-		--	--	--	--	--
Bromomethane	-	-	-		--	--	--	--	--
Carbon disulfide	-	-	-		--	--	--	--	--
Carbon Tetrachloride	-	-	-		--	--	--	--	--
Chlorobenzene	-	-	-		--	--	--	--	--
Chloroethane	-	-	-		--	--	--	--	--
Chloroform	-	-	-		--	--	--	--	--
Chloromethane	-	-	-		--	--	--	--	--
cis-1.2-Dichloroethene	-	-	-		--	--	--	--	--
cis-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Dibromochloromethane	-	-	-		--	--	--	--	--
Dibromomethane	-	-	-		--	--	--	--	--
Dichlorodifluoromethane	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	RPD_TS1	T1/3/0.2	T2/1/0.3	T2/2/0.5	T2/3/0.2
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.2	0.3	0.5	0.2
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Ethylbenzene	NL	-	125		nc	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	--	--	--	--
Isopropyl benzene (Cumene)	-	-	-		--	--	--	--	--
m&p-Xylenes	-	-	-		nc	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	--	--	--	--
o-Xylene	-	-	-		nc	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	--	--	--	--
Tetrachloroethene	-	-	-		--	--	--	--	--
Toluene	390	-	105		nc	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	--	--	--	--
trans-1.3-Dichloropropene	-	-	-		--	--	--	--	--
Trichloroethene	-	-	-		--	--	--	--	--
Trichlorofluoromethane	-	-	-		--	--	--	--	--
Vinyl chloride	-	-	-		--	--	--	--	--
Xylenes - Total	95	-	45		nc	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
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Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS1	SS6	SS7	SS8	SS9
	HSLs - A/B	Management	ESLs	Depth (m)	-	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
1.1-Dichloroethane	-	-	-		--	< 0.5	< 0.5	--	--
1.1-Dichloroethene	-	-	-		--	< 0.5	< 0.5	--	--
1.1.1-Trichloroethane	-	-	-		--	< 0.5	< 0.5	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	< 0.5	< 0.5	--	--
1.1.2-Trichloroethane	-	-	-		--	< 0.5	< 0.5	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	< 0.5	< 0.5	--	--
1.2-Dibromoethane	-	-	-		--	< 0.5	< 0.5	--	--
1.2-Dichlorobenzene	-	-	-		--	< 0.5	< 0.5	--	--
1.2-Dichloroethane	-	-	-		--	< 0.5	< 0.5	--	--
1.2-Dichloropropane	-	-	-		--	< 0.5	< 0.5	--	--
1.2.3-Trichloropropane	-	-	-		--	< 0.5	< 0.5	--	--
1.2.4-Trimethylbenzene	-	-	-		--	< 0.5	< 0.5	--	--
1.3-Dichlorobenzene	-	-	-		--	< 0.5	< 0.5	--	--
1.3-Dichloropropane	-	-	-		--	< 0.5	< 0.5	--	--
1.3.5-Trimethylbenzene	-	-	-		--	< 0.5	< 0.5	--	--
1.4-Dichlorobenzene	-	-	-		--	< 0.5	< 0.5	--	--
2-Butanone (MEK)	-	-	-		--	< 0.5	< 0.5	--	--
2-Propanone (Acetone)	-	-	-		--	< 5	< 5	--	--
4-Chlorotoluene	-	-	-		--	< 0.5	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

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Total concentrations in mg/kg

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DS1 = duplicate of T1/2/0.8

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS1	SS6	SS7	SS8	SS9
	HSLs - A/B	Management	ESLs	Depth (m)	-	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	< 0.5	< 0.5	--	--
Allyl chloride	-	-	-		--	< 0.05	< 0.05	--	--
Benzene	0.6	-	65		< 0.1	< 0.1	< 0.1	< 0.1	0.7
Bromobenzene	-	-	-		--	< 0.5	< 0.5	--	--
Bromochloromethane	-	-	-		--	< 0.5	< 0.5	--	--
Bromodichloromethane	-	-	-		--	< 0.5	< 0.5	--	--
Bromoform	-	-	-		--	< 0.5	< 0.5	--	--
Bromomethane	-	-	-		--	< 0.5	< 0.5	--	--
Carbon disulfide	-	-	-		--	< 0.5	< 0.5	--	--
Carbon Tetrachloride	-	-	-		--	< 0.5	< 0.5	--	--
Chlorobenzene	-	-	-		--	< 0.5	< 0.5	--	--
Chloroethane	-	-	-		--	< 0.5	< 0.5	--	--
Chloroform	-	-	-		--	< 0.5	< 0.5	--	--
Chloromethane	-	-	-		--	< 0.5	< 0.5	--	--
cis-1.2-Dichloroethene	-	-	-		--	< 0.5	< 0.5	--	--
cis-1.3-Dichloropropene	-	-	-		--	< 0.5	< 0.5	--	--
Dibromochloromethane	-	-	-		--	< 0.5	< 0.5	--	--
Dibromomethane	-	-	-		--	< 0.5	< 0.5	--	--
Dichlorodifluoromethane	-	-	-		--	< 0.5	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.

Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

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DS1 = duplicate of T1/2/0.8

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS1	SS6	SS7	SS8	SS9
	HSLs - A/B	Management	ESLs	Depth (m)	-	-	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
Ethylbenzene	NL	-	125		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	< 0.5	< 0.5	--	--
Isopropyl benzene (Cumene)	-	-	-		--	< 0.5	< 0.5	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	< 0.5	< 0.5	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	< 0.5	< 0.5	--	--
Tetrachloroethene	-	-	-		--	< 0.5	< 0.5	--	--
Toluene	390	-	105		< 0.1	< 0.1	< 0.1	< 0.1	0.2
trans-1,2-Dichloroethene	-	-	-		--	< 0.5	< 0.5	--	--
trans-1,3-Dichloropropene	-	-	-		--	< 0.5	< 0.5	--	--
Trichloroethene	-	-	-		--	< 0.5	< 0.5	--	--
Trichlorofluoromethane	-	-	-		--	< 0.5	< 0.5	--	--
Vinyl chloride	-	-	-		--	< 0.5	< 0.5	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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DS1 = duplicate of T1/2/0.8

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS10	BH1/0.1-0.2	SP1/0.3-0.35	SP2/0.3-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.1-0.2	0.3-0.35	0.3-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	6/10/2016	5/10/2016	5/10/2016
1.1-Dichloroethane	-	-	-		--	< 0.5	--	--
1.1-Dichloroethene	-	-	-		--	< 0.5	--	--
1.1.1-Trichloroethane	-	-	-		--	< 0.5	--	--
1.1.1.2-Tetrachloroethane	-	-	-		--	< 0.5	--	--
1.1.2-Trichloroethane	-	-	-		--	< 0.5	--	--
1.1.2.2-Tetrachloroethane	-	-	-		--	< 0.5	--	--
1.2-Dibromoethane	-	-	-		--	< 0.5	--	--
1.2-Dichlorobenzene	-	-	-		--	< 0.5	--	--
1.2-Dichloroethane	-	-	-		--	< 0.5	--	--
1.2-Dichloropropane	-	-	-		--	< 0.5	--	--
1.2.3-Trichloropropane	-	-	-		--	< 0.5	--	--
1.2.4-Trimethylbenzene	-	-	-		--	< 0.5	--	--
1.3-Dichlorobenzene	-	-	-		--	< 0.5	--	--
1.3-Dichloropropane	-	-	-		--	< 0.5	--	--
1.3.5-Trimethylbenzene	-	-	-		--	< 0.5	--	--
1.4-Dichlorobenzene	-	-	-		--	< 0.5	--	--
2-Butanone (MEK)	-	-	-		--	< 0.5	--	--
2-Propanone (Acetone)	-	-	-		--	< 5	--	--
4-Chlorotoluene	-	-	-		--	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS10	BH1/0.1-0.2	SP1/0.3-0.35	SP2/0.3-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.1-0.2	0.3-0.35	0.3-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	6/10/2016	5/10/2016	5/10/2016
4-Methyl-2-pentanone (MIBK)	-	-	-		--	< 0.5	--	--
Allyl chloride	-	-	-		--	< 0.05	--	--
Benzene	0.6	-	65		0.2	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-	-		--	< 0.5	--	--
Bromochloromethane	-	-	-		--	< 0.5	--	--
Bromodichloromethane	-	-	-		--	< 0.5	--	--
Bromoform	-	-	-		--	< 0.5	--	--
Bromomethane	-	-	-		--	< 0.5	--	--
Carbon disulfide	-	-	-		--	< 0.5	--	--
Carbon Tetrachloride	-	-	-		--	< 0.5	--	--
Chlorobenzene	-	-	-		--	< 0.5	--	--
Chloroethane	-	-	-		--	< 0.5	--	--
Chloroform	-	-	-		--	< 0.5	--	--
Chloromethane	-	-	-		--	< 0.5	--	--
cis-1.2-Dichloroethene	-	-	-		--	< 0.5	--	--
cis-1.3-Dichloropropene	-	-	-		--	< 0.5	--	--
Dibromochloromethane	-	-	-		--	< 0.5	--	--
Dibromomethane	-	-	-		--	< 0.5	--	--
Dichlorodifluoromethane	-	-	-		--	< 0.5	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

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Table 2 : Summary of Soil Analytical Data - Volatile Organic Compounds

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS10	BH1/0.1-0.2	SP1/0.3-0.35	SP2/0.3-0.35
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.1-0.2	0.3-0.35	0.3-0.35
	Silt	Limits	Urban Res	Type	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil	Date	5/10/2016	6/10/2016	5/10/2016	5/10/2016
Ethylbenzene	NL	-	125		0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-	-		--	< 0.5	--	--
Isopropyl benzene (Cumene)	-	-	-		--	< 0.5	--	--
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-	-		--	< 0.5	--	--
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-	-		--	< 0.5	--	--
Tetrachloroethene	-	-	-		--	< 0.5	--	--
Toluene	390	-	105		0.2	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-	-		--	< 0.5	--	--
trans-1.3-Dichloropropene	-	-	-		--	< 0.5	--	--
Trichloroethene	-	-	-		--	< 0.5	--	--
Trichlorofluoromethane	-	-	-		--	< 0.5	--	--
Vinyl chloride	-	-	-		--	< 0.5	--	--
Xylenes - Total	95	-	45		< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	T1/1/0.2	T1/2/0.8	DS1	RPD_DS1	TS1
	HSLs - A/B	ESLs		Depth (m)	0.2	0.8	-	-	-
	Silt	Urban Res	HILs - A	Type	-	-	-	-	-
	0 to <1 m	Fine Soil		Date	6/09/2016	6/09/2016	6/09/2016	-	6/09/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Benzo(a)pyrene	-	0.7	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Indeno(1,2,3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5
Benzo(a)pyrene TEQ	-	-	3		0.6	0.6	0.6	0%	0.6
Total PAH	-	-	300		< 0.5	< 0.5	< 0.5	<i>nc</i>	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Criteria 3 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	RPD_TS1	T1/3/0.2	T2/1/0.3	T2/2/0.5	T2/3/0.2
	HSLs - A/B	ESLs		Depth (m)	-	0.2	0.3	0.5	0.2
	Silt	Urban Res	HILs - A	Type	-	-	-	-	-
	0 to <1 m	Fine Soil		Date	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
Acenaphthene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	0.7	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	4	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	-	3		0%	0.6	0.6	0.6	0.6
Total PAH	-	-	300		nc	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Criteria 3 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

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Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS1	SS6	SS7	SS8	SS9
	HSLs - A/B	ESLs		Depth (m)	-	-	-	-	-
	Silt	Urban Res	HILs - A	Type	-	-	-	-	-
	0 to <1 m	Fine Soil		Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
Acenaphthene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Benzo(a)pyrene	-	0.7	-		< 0.5	--	--	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Chrysene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Fluorene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Naphthalene	4	-	-		< 0.5	--	--	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Pyrene	-	-	-		< 0.5	--	--	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	-	3		0.6	--	--	0.6	0.6
Total PAH	-	-	300		< 0.5	--	--	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Criteria 3 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	SS10	BH1/0.1-0.2	SP1/0.3-0.35	SP2/0.3-0.35
	HSLs - A/B	ESLs		Depth (m)	-	0.1-0.2	0.3-0.35	0.3-0.35
	Silt	Urban Res	HILs - A	Type	-	-	-	-
	0 to <1 m	Fine Soil		Date	5/10/2016	6/10/2016	5/10/2016	5/10/2016
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	0.7	-		< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	-	3		0.6	0.6	0.6	0.6
Total PAH	-	-	300		< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.

Criteria 2 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Criteria 3 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Austral NSW

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Austral NSW

Notes:

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Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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-- = sample not analysed

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Austral NSW

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Austral NSW

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Austral NSW

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Table 4 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	T1/1/0.2	T1/2/0.8	DS1	TS1	RPD_TS1
			EILS	½ EILS	Depth (m)	0.2	0.8	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/09/2016	6/09/2016	6/09/2016	6/09/2016	-
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	nc
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	nc
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Dieldrin	-	-	-	-		< 0.05	0.88	0.06	0.3	98%
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Austral NSW

Notes:

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Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	RPD_DS1	T1/3/0.2	T2/1/0.3	T2/2/0.5	T2/3/0.2
			EILS	½ EILS	Depth (m)	-	0.2	0.3	0.5	0.2
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	-	6/09/2016	6/09/2016	6/09/2016	6/09/2016
4.4'-DDD	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	-	180	90		nc	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		nc	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		174%	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

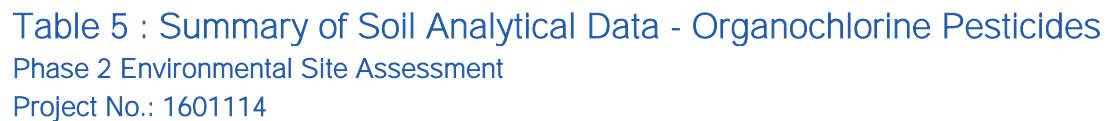
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Austral NSW

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Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

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TS2 - COMP = triplicate of C11

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C1	C2	C3	C4	C5
			EILS	½ EILS	Depth (m)	-	-	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	0.1
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Austral NSW

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Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

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DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C6	C7	C8	C9	C10
			EILS	½ EILS	Depth (m)	-	-	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	0.13
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C11	DS2	TS2 - COMP	RPD_DS2	RPD_TS2 - COMF
			EILS	½ EILS	Depth (m)	-	-	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016	-	-	-
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	0.08	nc	nc
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	nc	nc
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	nc	nc
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	nc	nc
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	nc	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

[illegible]

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C12	SS1	SS2	SS3	SS4
			EILS	$\frac{1}{2}$ EILS	Depth (m)	-	-	-	-	-
	HILs - A	$\frac{1}{2}$ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-	-	-		< 0.05	--	--	--	--
4.4'-DDE	-	-	-	-		< 0.05	--	--	--	--
4.4'-DDT	-	-	180	90		< 0.05	--	--	--	--
a-BHC	-	-	-	-		< 0.05	--	--	--	--
Aldrin	-	-	-	-		< 0.05	--	--	--	--
b-BHC	-	-	-	-		< 0.05	--	--	--	--
Chlordanes - Total	50	25	-	-		< 0.1	--	--	--	--
d-BHC	-	-	-	-		< 0.05	--	--	--	--
Dieldrin	-	-	-	-		< 0.05	--	--	--	--
Endosulfan I	-	-	-	-		< 0.05	--	--	--	--
Endosulfan II	-	-	-	-		< 0.05	--	--	--	--
Endosulfan sulphate	-	-	-	-		< 0.05	--	--	--	--
Endrin	10	5	-	-		< 0.05	--	--	--	--
Endrin aldehyde	-	-	-	-		< 0.05	--	--	--	--
Endrin ketone	-	-	-	-		< 0.05	--	--	--	--
g-BHC (Lindane)	-	-	-	-		< 0.05	--	--	--	--
Heptachlor	6	3	-	-		< 0.05	--	--	--	--
Heptachlor epoxide	-	-	-	-		< 0.05	--	--	--	--
Hexachlorobenzene	10	5	-	-		< 0.05	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants ($\frac{1}{2}$ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space ($\frac{1}{2}$ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

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Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	SS5	SS6	SS7	SS8	SS9
			EILS	$\frac{1}{2}$ EILS	Depth (m)	-	-	-	-	-
	HILs - A	$\frac{1}{2}$ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016	5/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-	-	-		--	--	--	--	--
4.4'-DDE	-	-	-	-		--	--	--	--	--
4.4'-DDT	-	-	180	90		--	--	--	--	--
a-BHC	-	-	-	-		--	--	--	--	--
Aldrin	-	-	-	-		--	--	--	--	--
b-BHC	-	-	-	-		--	--	--	--	--
Chlordanes - Total	50	25	-	-		--	--	--	--	--
d-BHC	-	-	-	-		--	--	--	--	--
Dieldrin	-	-	-	-		--	--	--	--	--
Endosulfan I	-	-	-	-		--	--	--	--	--
Endosulfan II	-	-	-	-		--	--	--	--	--
Endosulfan sulphate	-	-	-	-		--	--	--	--	--
Endrin	10	5	-	-		--	--	--	--	--
Endrin aldehyde	-	-	-	-		--	--	--	--	--
Endrin ketone	-	-	-	-		--	--	--	--	--
g-BHC (Lindane)	-	-	-	-		--	--	--	--	--
Heptachlor	6	3	-	-		--	--	--	--	--
Heptachlor epoxide	-	-	-	-		--	--	--	--	--
Hexachlorobenzene	10	5	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants ($\frac{1}{2}$ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space ($\frac{1}{2}$ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

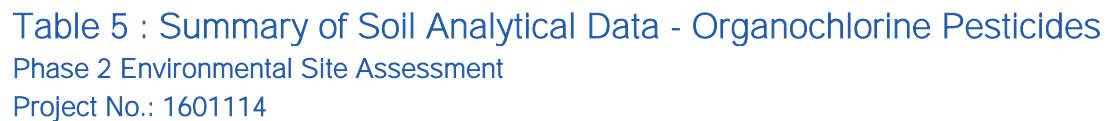
RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Austral NSW

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	SS10	BH1/0.1-0.2	SS1/0.0-0.15	S21/0.0-0.15
			EILS	½ EILS	Depth (m)	-	0.1-0.2	0.0-0.15	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-
			Residential	Residential	Date	5/10/2016	6/10/2016	5/10/2016	5/10/2016
4.4'-DDD	-	-	-	-		--	--	--	--
4.4'-DDE	-	-	-	-		--	--	--	--
4.4'-DDT	-	-	180	90		--	--	--	--
a-BHC	-	-	-	-		--	--	--	--
Aldrin	-	-	-	-		--	--	--	--
b-BHC	-	-	-	-		--	--	--	--
Chlordanes - Total	50	25	-	-		--	--	--	--
d-BHC	-	-	-	-		--	--	--	--
Dieldrin	-	-	-	-		--	--	--	--
Endosulfan I	-	-	-	-		--	--	--	--
Endosulfan II	-	-	-	-		--	--	--	--
Endosulfan sulphate	-	-	-	-		--	--	--	--
Endrin	10	5	-	-		--	--	--	--
Endrin aldehyde	-	-	-	-		--	--	--	--
Endrin ketone	-	-	-	-		--	--	--	--
g-BHC (Lindane)	-	-	-	-		--	--	--	--
Heptachlor	6	3	-	-		--	--	--	--
Heptachlor epoxide	-	-	-	-		--	--	--	--
Hexachlorobenzene	10	5	-	-		--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Austral NSW

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	SP1/0.3-0.35	SP2/0.3-0.35
			EILS	½ EILS	Depth (m)	0.3-0.35	0.3-0.35
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05
4.4'-DDT	-	-	180	90		< 0.05	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1
d-BHC	-	-	-	-		< 0.05	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 5 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

60 - 80 Edmondson Avenue,

Austral NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	SP1/0.3-0.35	SP2/0.3-0.35
			EILS	½ EILS	Depth (m)	0.3-0.35	0.3-0.35
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-
			Residential	Residential	Date	5/10/2016	5/10/2016
Methoxychlor	300	150	-	-		< 0.2	< 0.2
Toxaphene	20	10	-	-		< 1	< 1
Aldrin + Dieldrin	6	3	-	-		ND	ND
Endosulfans - Total	270	135	-	-		ND	ND
DDD + DDE + DDT	240	120	-	-		ND	ND
Scheduled Chemical Wastes	-	-	-	-		ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of T1/2/0.8

TS1 = triplicate of T1/2/0.8

DS2 = duplicate of C11

TS2 - COMP = triplicate of C11

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 6 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

60 - 80 Edmondson Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 6 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

60 - 80 Edmondson Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

Amo = Amosite asbestos detected

Chy = Chrysotile asbestos detected

Cro = Crocidolite asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 6 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

60 - 80 Edmondson Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

Amo = Amosite asbestos detected

Chy = Chrysotile asbestos detected

Cro = Crocidolite asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 6a : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment Addendum
Project No.: 1701011

60 - 80 Edmondson Avenue
Austral NSW

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'D' Commercial/industrial Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

D1 = field duplicate of S1

RPD = relative percent difference of field duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed



Table 6a : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment Addendum
Project No.: 1701011

60 - 80 Edmondson Avenue
Austral NSW

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'D' Commercial/industrial Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

D1 = field duplicate of S1

RPD = relative percent difference of field duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.5 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed

ATTACHMENT E

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	TP3/0.3	TP4/0.3	DS1	TS1	RPD_DS1
	HSLs - A/B	Management	ESLs	Depth (m)	0.3	0.3	-	-	-
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	6/09/2016	6/09/2016	6/09/2016	-	-
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	nc
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	nc
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	52	< 50	< 50	nc
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	52	< 50	< 50	nc
TRH >C ₁₆ -C ₃₄	-	3,500	300		160	240	120	< 100	67%
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	< 100	nc
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	nc
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	nc
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	nc
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	nc
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	nc
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	nc
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	RPD_TS1	TP5/0.2	S1/0.0-0.15	S3/0.0-0.15	S6/0.0-0.2
	HSLs - A/B	Management	ESLs	Depth (m)	-	0.2	0.0-0.15	0.0-0.15	0.0-0.2
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	-	6/09/2016	6/10/2016	6/10/2016	6/10/2016
TRH C ₆ -C ₁₀	-	800	-		nc	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		nc	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		nc	51	< 50	420	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		nc	51	< 50	420	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		nc	250	130	990	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		nc	< 100	< 100	220	< 100
Benzene	0.6	-	50		nc	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		nc	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		nc	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		nc	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		nc	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		nc	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 1 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Sample ID	S7/0.0-0.15	S12/0.0-0.15	S15/0.0-0.15	S16/0.0-0.2	S20/0.0-0.15
	HSLs - A/B	Management	ESLs	Depth (m)	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.2	0.0-0.15
	Silt	Limits	Urban Res	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Coarse Soil	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
TRH C ₆ -C ₁₀	-	800	-		< 20	< 20	< 20	< 20	< 20
TRH C ₆ -C ₁₀ less BTEX (F1)	40	-	180		< 20	< 20	< 20	< 20	< 20
TRH >C ₁₀ -C ₁₆	-	1,000	-		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	230	-	120		< 50	< 50	< 50	< 50	< 50
TRH >C ₁₆ -C ₃₄	-	3,500	300		< 100	< 100	< 100	< 100	< 100
TRH >C ₃₄ -C ₄₀	-	10,000	2,800		< 100	< 100	< 100	< 100	< 100
Benzene	0.6	-	50		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	390	-	85		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	-	70		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	95	-	105		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	4	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	TP3/0.3	TP4/0.3	DS1	TS1	RPD_DS1
	HSLs - A/B	Management	ESLs		Depth (m)	0.3	0.3	-	-	-
	Silt	Limits	Urban Res	HILs - A	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil		Date	6/09/2016	6/09/2016	6/09/2016	-	-
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Benzo(a)pyrene	-	-	0.7	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Benzo(g,h,i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Dibenz(a,h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Indeno(1,2,3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Naphthalene	4	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	nc
Benzo(a)pyrene TEQ	-	-	-	3		0.6	0.6	0.6	0.6	0%
Total PAH	-	-	-	300		< 0.5	< 0.5	< 0.5	< 0.5	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.
Criteria 4 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	RPD_TS1	TP5/0.2	S1/0.0-0.15	S3/0.0-0.15	S6/0.0-0.2
	HSLs - A/B	Management	ESLs		Depth (m)	-	0.2	0.0-0.15	0.0-0.15	0.0-0.2
	Silt	Limits	Urban Res	HILs - A	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil		Date	-	6/09/2016	6/10/2016	6/10/2016	6/10/2016
Acenaphthene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	0.7	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	4	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-	-		nc	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	-	-	3		0%	0.6	0.6	0.6	0.6
Total PAH	-	-	-	300		nc	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.
Criteria 4 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S7/0.0-0.15	S12/0.0-0.15	S15/0.0-0.15	S16/0.0-0.2	S20/0.0-0.15
	HSLs - A/B	Management	ESLs		Depth (m)	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.2	0.0-0.15
	Silt	Limits	Urban Res	HILs - A	Type	-	-	-	-	-
	0 to <1 m	Res/Park	Fine Soil		Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
Acenaphthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	-	-	0.7	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	4	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	-	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ	-	-	-	3		0.6	0.6	0.6	0.6	0.6
Total PAH	-	-	-	300		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'A/B' Residential Soil Health Screening Levels for vapour intrusion, silt 0 to <1m.
Criteria 2 = NEPC (1999) Amended, Residential and parkland Management Limits for TPH fractions in soil, fine material.
Criteria 3 = NEPC (1999) Amended, Ecological Screening Levels for urban residential/public open space, fine soil.
Criteria 4 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Total concentrations in mg/kg

- = assessment criteria not available

NL = not limiting

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 3 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.

²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Geo-Logix

Geo-Logix

RPD = relative percent difference of duplicate/triplicate
 nc = RPD not calculated, one or both samples below laboratory reporting limit
 < # or ND = analyte(s) not detected in excess of laboratory reporting limit
 -- = sample not analysed
 Bold/red indicates exceedance of assessment criteria

TS2 - COMP = triplicate of C10



Table 3 : Summary of Soil Analytical Data - Heavy Metals

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

¹Guideline for Chromium (VI) used conservatively.²Guideline for Chromium (III) used conservatively.

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceed

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	TP3/0.3	TP4/0.3	DS1	TS1	RPD_DS1
			EILS	½ EILS	Depth (m)	0.3	0.3	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/09/2016	6/09/2016	6/09/2016	-	-
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	nc
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	nc
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	nc

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.
Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).
Total concentrations in mg/kg
- = assessment criteria not available
DS1 = duplicate of TP4/0.3
TS1 = triplicate of TP4/0.3
DS2 = duplicate of C10
TS2 - COMP = triplicate of C10
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	RPD_TS1	TP5/0.2	S1/0.0-0.15	S3/0.0-0.15	S6/0.0-0.2
			EILS	½ EILS	Depth (m)	-	0.2	0.0-0.15	0.0-0.15	0.0-0.2
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	-	6/09/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	-	180	90		nc	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		nc	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		nc	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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[illegible]

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S7/0.0-0.15	S12/0.0-0.15	S15/0.0-0.15	S16/0.0-0.2	S20/0.0-0.15
			EILS	½ EILS	Depth (m)	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.2	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

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Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S7/0.0-0.15	S12/0.0-0.15	S15/0.0-0.15	S16/0.0-0.2	S20/0.0-0.15
			EILS	½ EILS	Depth (m)	0.0-0.15	0.0-0.15	0.0-0.15	0.0-0.2	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
Methoxychlor	300	150	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	20	10	-	-		< 1	< 1	< 1	< 1	< 1
Aldrin + Dieldrin	6	3	-	-		ND	ND	ND	ND	ND
Endosulfans - Total	270	135	-	-		ND	ND	ND	ND	ND
DDD + DDE + DDT	240	120	-	-		ND	ND	ND	ND	ND
Scheduled Chemical Wastes	-	-	-	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C1	C2	C3	C4	C5
			EILS	½ EILS	Depth (m)	-	-	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C6	C7	C8	C9	C10
			EILS	½ EILS	Depth (m)	-	-	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	5/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	< 0.05	0.06	< 0.05
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	DS2	TS2 - COMP	RPD_DS2	RPD_TS2 - COMF	C11
			EILS	½ EILS	Depth (m)	-	-	-	-	-
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	-	-	-	6/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
4.4'-DDE	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
4.4'-DDT	-	-	180	90		< 0.05	< 0.05	nc	nc	< 0.05
a-BHC	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Aldrin	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
b-BHC	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Chlordanes - Total	50	25	-	-		< 0.1	< 0.1	nc	nc	< 0.1
d-BHC	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Dieldrin	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Endosulfan I	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Endosulfan II	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Endrin	10	5	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Endrin aldehyde	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Endrin ketone	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Heptachlor	6	3	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.05	nc	nc	< 0.05
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.05	nc	nc	< 0.05

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

[illegible]

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

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Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

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DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C12	R1	D1/0.0-0.5	S7/0.2-0.25	S8/0.0-0.15
			EILS	½ EILS	Depth (m)	-	-	0.0-0.5	0.2-0.25	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		< 0.05	< 0.0001	--	--	--
4.4'-DDE	-	-	-	-		0.09	< 0.0001	--	--	--
4.4'-DDT	-	-	180	90		< 0.05	< 0.0001	--	--	--
a-BHC	-	-	-	-		< 0.05	< 0.0001	--	--	--
Aldrin	-	-	-	-		< 0.05	< 0.0001	--	--	--
b-BHC	-	-	-	-		< 0.05	< 0.0001	--	--	--
Chlordanes - Total	50	25	-	-		< 0.1	< 0.001	--	--	--
d-BHC	-	-	-	-		< 0.05	< 0.0001	--	--	--
Dieldrin	-	-	-	-		< 0.05	< 0.0001	--	--	--
Endosulfan I	-	-	-	-		< 0.05	< 0.0001	--	--	--
Endosulfan II	-	-	-	-		< 0.05	< 0.0001	--	--	--
Endosulfan sulphate	-	-	-	-		< 0.05	< 0.0001	--	--	--
Endrin	10	5	-	-		< 0.05	< 0.0001	--	--	--
Endrin aldehyde	-	-	-	-		< 0.05	< 0.0001	--	--	--
Endrin ketone	-	-	-	-		< 0.05	< 0.0001	--	--	--
g-BHC (Lindane)	-	-	-	-		< 0.05	< 0.0001	--	--	--
Heptachlor	6	3	-	-		< 0.05	< 0.0001	--	--	--
Heptachlor epoxide	-	-	-	-		< 0.05	< 0.0001	--	--	--
Hexachlorobenzene	10	5	-	-		< 0.05	< 0.0001	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	C12	R1	D1/0.0-0.5	S7/0.2-0.25	S8/0.0-0.15
			EILS	½ EILS	Depth (m)	-	-	0.0-0.5	0.2-0.25	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
Methoxychlor	300	150	-	-		< 0.2	< 0.0001	--	--	--
Toxaphene	20	10	-	-		< 1	< 0.01	--	--	--
Aldrin + Dieldrin	6	3	-	-		ND	ND	--	--	--
Endosulfans - Total	270	135	-	-		ND	ND	--	--	--
DDD + DDE + DDT	240	120	-	-		0.09	ND	--	--	--
Scheduled Chemical Wastes	-	-	-	-		0.09	ND	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

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Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S11/0.0-0.15	S12/0.2-0.25	S15/0.2-0.25	S16/0.2-0.3	S17/0.0-0.15
			EILS	½ EILS	Depth (m)	0.0-0.15	0.2-0.25	0.2-0.25	0.2-0.3	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		--	--	--	--	--
4.4'-DDE	-	-	-	-		--	--	--	--	--
4.4'-DDT	-	-	180	90		--	--	--	--	--
a-BHC	-	-	-	-		--	--	--	--	--
Aldrin	-	-	-	-		--	--	--	--	--
b-BHC	-	-	-	-		--	--	--	--	--
Chlordanes - Total	50	25	-	-		--	--	--	--	--
d-BHC	-	-	-	-		--	--	--	--	--
Dieldrin	-	-	-	-		--	--	--	--	--
Endosulfan I	-	-	-	-		--	--	--	--	--
Endosulfan II	-	-	-	-		--	--	--	--	--
Endosulfan sulphate	-	-	-	-		--	--	--	--	--
Endrin	10	5	-	-		--	--	--	--	--
Endrin aldehyde	-	-	-	-		--	--	--	--	--
Endrin ketone	-	-	-	-		--	--	--	--	--
g-BHC (Lindane)	-	-	-	-		--	--	--	--	--
Heptachlor	6	3	-	-		--	--	--	--	--
Heptachlor epoxide	-	-	-	-		--	--	--	--	--
Hexachlorobenzene	10	5	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

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Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S11/0.0-0.15	S12/0.2-0.25	S15/0.2-0.25	S16/0.2-0.3	S17/0.0-0.15
			EILS	$\frac{1}{2}$ EILS	Depth (m)	0.0-0.15	0.2-0.25	0.2-0.25	0.2-0.3	0.0-0.15
	HILs - A	$\frac{1}{2}$ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
Methoxychlor	300	150	-	-		--	--	--	--	--
Toxaphene	20	10	-	-		--	--	--	--	--
Aldrin + Dieldrin	6	3	-	-		--	--	--	--	--
Endosulfans - Total	270	135	-	-		--	--	--	--	--
DDD + DDE + DDT	240	120	-	-		--	--	--	--	--
Scheduled Chemical Wastes	-	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants ($\frac{1}{2}$ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space ($\frac{1}{2}$ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

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Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S18/0.0-0.15	S19/0.0-0.15	S20/0.2-0.3	S21/0.0-0.15	S22/0.0-0.15
			EILS	½ EILS	Depth (m)	0.0-0.15	0.0-0.15	0.2-0.3	0.0-0.15	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
4.4'-DDD	-	-	-	-		--	--	--	--	--
4.4'-DDE	-	-	-	-		--	--	--	--	--
4.4'-DDT	-	-	180	90		--	--	--	--	--
a-BHC	-	-	-	-		--	--	--	--	--
Aldrin	-	-	-	-		--	--	--	--	--
b-BHC	-	-	-	-		--	--	--	--	--
Chlordanes - Total	50	25	-	-		--	--	--	--	--
d-BHC	-	-	-	-		--	--	--	--	--
Dieldrin	-	-	-	-		--	--	--	--	--
Endosulfan I	-	-	-	-		--	--	--	--	--
Endosulfan II	-	-	-	-		--	--	--	--	--
Endosulfan sulphate	-	-	-	-		--	--	--	--	--
Endrin	10	5	-	-		--	--	--	--	--
Endrin aldehyde	-	-	-	-		--	--	--	--	--
Endrin ketone	-	-	-	-		--	--	--	--	--
g-BHC (Lindane)	-	-	-	-		--	--	--	--	--
Heptachlor	6	3	-	-		--	--	--	--	--
Heptachlor epoxide	-	-	-	-		--	--	--	--	--
Hexachlorobenzene	10	5	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Organochlorine Pesticides

Phase 2 Environmental Site Assessment

Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,

Edmondson Avenue NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Sample ID	S18/0.0-0.15	S19/0.0-0.15	S20/0.2-0.3	S21/0.0-0.15	S22/0.0-0.15
			EILS	½ EILS	Depth (m)	0.0-0.15	0.0-0.15	0.2-0.3	0.0-0.15	0.0-0.15
	HILs - A	½ HILs - A	Urban	Urban	Type	-	-	-	-	-
			Residential	Residential	Date	6/10/2016	6/10/2016	6/10/2016	6/10/2016	6/10/2016
Methoxychlor	300	150	-	-		--	--	--	--	--
Toxaphene	20	10	-	-		--	--	--	--	--
Aldrin + Dieldrin	6	3	-	-		--	--	--	--	--
Endosulfans - Total	270	135	-	-		--	--	--	--	--
DDD + DDE + DDT	240	120	-	-		--	--	--	--	--
Scheduled Chemical Wastes	-	-	-	-		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants.

Criteria 2 = NEPC (1999) Amended, 'A' Residential Health-based Investigation Levels for soil contaminants (½ for composites).

Criteria 3 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space, minimum ACLs.

Criteria 4 = NEPC (1999) Amended, Ecological Investigation Levels for urban residential/public open space (½ for composites).

Total concentrations in mg/kg

- = assessment criteria not available

DS1 = duplicate of TP4/0.3

TS1 = triplicate of TP4/0.3

DS2 = duplicate of C10

TS2 - COMP = triplicate of C10

RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria



Table 5 : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment
Project No.: 1601114

155 Fifth Avenue and 50 Edmondson Avenue,
Austral NSW

[illegible]

Notes:

Criteria 1 = Presence/absence of asbestos contamination in soil.

ND = no asbestos detected

Amo = Amosite asbestos detected

Chy = Chrysotile asbestos detected

Cro = Crocidolite asbestos detected

-- = sample not analysed

Bold/red indicates presence of asbestos therefore exceedance of assessment criteria



Table 5a : Summary of Soil Analytical Data - Asbestos
Phase 2 Environmental Site Assessment Addendum
Project No.: 1701012

Part 155 Fith Avenue and 50 Edmondson Avenue
Austral NSW

[illegible]

Notes:

Criteria 1 = NEPM (1999) Amended 'A' Residential Health Screening Levels for asbestos contamination in soil.

Total concentrations in %w/w

- = assessment criteria not available

D1 = field duplicate of S1

RPD = relative percent difference of field duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit

ND = no asbestos detected

-- = sample not analysed

Bold/red indicates exceedance of assessment criteria

* A soil bulk density of 1.6 kg/L has been assumed

**An ACM asbestos content of 15 % by weight has been assumed

ATTACHMENT F



SOIL SAMPLING PROCEDURE – GENERAL

1. Scope

The purpose of this Standard Operating Procedure is to provide a description of the procedures used for the collection and handling of soil samples. This procedure should be read in conjunction with the other specific sampling procedures.

2. Equipment

The following equipment may be required:

- Tape measure;
- Sample containers;
- Photoionisation detector (PID)
- Zip-lock plastic bags;
- Chain of Custody forms;
- Personal protective equipment;
- Coolers (esbies);
- Ice;
- Spade/shovel/trowel; and
- Hand auger.

3. Safety

A site specific Health and Safety Plan (HASP) must be developed before visiting site and signed off by a manager.

During the sampling of soils, the following personal protective equipment (PPE) should be worn as a minimum:

- Safety glasses;
- Nitrile gloves;
- Long-sleeved shirt; and
- Long-legged trousers.

Other PPE may be required depending on the nature of the soil contaminants. A hard hat may be required if sampling in the proximity of a drill rig / excavator or other hazard.



4. Soil Sampling Procedures

The following general sampling procedures should be applied when collecting soil samples:

- Each sample should be given a unique sample ID code. Sample depth and date should be noted;
- A clean pair of nitrile gloves should be worn when collecting each sample prior to handling, so as to avoid cross contamination;
- Following the collection of the sample it should be placed in a sample container labelled with the unique sample ID code, the date of collection and the job number.
- The sample container should be sealed and placed immediately in an ice-cooled esky;
- A soil sub sample should be placed in a zip-lock bag for field screening for Volatile Organic Compounds (VOCs) using a PID. The zip-lock bag should be sealed and allowed to stand for approximately 5 minutes to allow for equilibration of volatile compounds to gas phase within the air space of the bag; and
- The tip of a PID should be used to puncture the zip-lock bag, and a PID reading taken once the reading has stabilised. The PID reading should be recorded in the sampler's field notes or on the relevant Geo-Logix Field Form.

Composite Samples

The following should be applied when composite sampling is required:

- Soils samples should not be composited in the field;
- Soil should be collected as discrete samples;
- Compositing for non-volatile analytes should be undertaken by the laboratory; and
- Laboratory analysis of composite samples for volatile and semi-volatile compounds should not be undertaken due to potential loss of volatiles through the composite process.

Sampling Soil for Volatile Analysis

The following should be applied when soil sampling for volatile analysis is required:

- Collect samples that are reasonably intact, taking care to remove surrounding soils that have been disturbed.

5. Sample Handling, Transport and Storage

To maintain sample integrity it is important to ensure that the samples remain cool and protected from light prior to and during transportation. If necessary, melted ice water in the eskies/coolers should be drained and the ice should be replaced.

Samples should be transported under Chain-of-Custody conditions to a National Association of Testing Authorities (NATA) licensed facility for analysis.



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